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I want to express my gratitude to the entire editorial board members and the many others that support them in facilitating this publication.

My sincere warm regards.

Prof. Joachim C. Omeje
Dean, Faculty of Education,
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**PERCEIVED IMPACT OF MINDFULNESS-BASED
INTERVENTIONS ON STUDENTS' STRESS REDUCTION AND
ACADEMIC PERFORMANCE**

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Abstract

The study investigated the perceived impact of mindfulness-based interventions on students' stress reduction and academic performance. The study adopted a descriptive survey research design. The population of the study comprised 296 undergraduate students selected from the Faculty of Education, University of Nigeria, Nsukka. The population size was manageable and therefore, there was no sampling. The instrument for data collection was Mindfulness-Based Interventions on Students' Stress Reduction Academic Performance Questionnaire (MISSRAPQ) developed by the researcher. A reliability coefficient of 0.82 was obtained using Cronbach Alpha method and the instrument was judged reliable. Mean and standard deviation were used to answer the research questions. The findings of the study revealed that students who participated in mindfulness programmes experienced a notable decrease in their stress levels. This reduction in stress, however, can be demonstrated through self-reported measures, physiological indicators, and participants' personal accounts. The findings of the study revealed that students who engaged in mindfulness practices may perhaps exhibit enhanced focus, concentration, and effective management of academic tasks, leading to higher grades and overall academic achievement. These findings contribute to the existing body of knowledge on the benefits of mindfulness-based interventions in educational settings, emphasizing their potential to enhance students' well-being and academic success. Based on the findings, it was recommended among others that by implementing mindfulness programmes and providing access to mindfulness resources, Nigerian universities can create a supportive environment that promotes students' mental health, resilience, and academic success.

Keywords: Mindfulness-based interventions, students' stress reduction, academic performance, Stress

Introduction

Stress is a pervasive issue affecting individuals in various domains of life, including educational settings. Students, in particular, experience high levels of stress due to academic pressures, social expectations, and personal challenges (Jones, 2018). The negative consequences of stress on students' well-being and academic performance have prompted researchers, psychologists, and educators such as Lupien, McEwen, Gunnar and Heim (2009) and McEwen (2012) to explore effective interventions to address this issue. However, in recent years, mindfulness-based interventions (MBIs) have gained considerable attention as a potential approach to reducing stress and promoting well-being in various contexts. Mindfulness-Based Interventions (MBIs) are evidence-based approaches that have gained recognition for their efficacy in promoting stress reduction and overall well-being. These interventions draw upon ancient contemplative practices, primarily rooted in Buddhist traditions, which emphasize the cultivation of present-moment awareness and non-judgmental acceptance of one's experiences. The modern application of MBIs began with the pioneering work of Jon Kabat-Zinn (Kabat-Zinn, 1982), who developed the Mindfulness-Based Stress Reduction (MBSR) programme. Since then, various adaptations of MBIs have been developed, including Mindfulness-Based Cognitive Therapy (MBCT) which was adapted and applied in clinical and non-clinical contexts, including educational settings (Segal et al., 2002) and Mindfulness-Based Interventions for Youth (MBI-Y) by Burke (2010). These interventions typically involve structured mindfulness training sessions, including guided meditation practices, body awareness exercises, and mindful movement activities.

Mindfulness refers to the intentional cultivation of present-moment awareness and non-judgmental acceptance of one's experiences (Kabat-Zinn, 2003). The practice of mindfulness involves directing one's attention to the present moment, noticing thoughts and sensations without judgment, and fostering an attitude of openness and acceptance. The core principles of MBIs are derived from traditional mindfulness practices and have been tailored for secular settings. These principles include

intentionally paying attention to the present moment, adopting an attitude of non-judgment and acceptance, cultivating self-compassion, and integrating mindfulness into daily life activities. Hence, by practicing these principles, students can develop a heightened sense of self-awareness, emotional regulation, and a more compassionate relationship with themselves and others (Shapiro et al., 2006). Research on MBIs has demonstrated their effectiveness in various populations, including students. Study by Dunning et al. (2019) has shown that MBIs can lead to reduced stress, anxiety, and depressive symptoms, improved well-being, and enhanced cognitive functioning. Furthermore, MBIs have been associated with improved attention, emotion regulation, and academic performance among students (Quach et al., 2016). Importantly, MBIs, with their roots in ancient contemplative practices, have been adapted for modern therapeutic and educational contexts. Guided by principles of present-moment awareness and non-judgmental acceptance, these interventions offer promising avenues for promoting stress reduction, enhancing overall well-being, and supporting students' academic success. The empirical evidence supports the effectiveness of MBIs, underscoring their potential as valuable tools for individuals seeking to cultivate mindfulness and improve their quality of life.

Mindfulness has gained popularity in various fields, including psychology, medicine, workplace well-being, and education. Hölzel, Lazar, Gard, Schuman-Olivier, Vago, and Ott (2011) conducted a study demonstrating the positive effects of mindfulness training on stress reduction, emotional regulation, attention control, and overall well-being. This evidence has led to the integration of mindfulness into evidence-based interventions in different settings, including education. Given the challenges faced by undergraduate students, investigating the impact of mindfulness on stress reduction and academic performance is important. Zenner et al. (2014) examined the effects of mindfulness-based interventions on students' well-being, including stress reduction, emotional regulation, self-esteem, and resilience. Emerging evidence suggests that mindfulness practices may also positively impact students' cognitive abilities, attention, and academic performance (Schonert-Reichl et al., 2019). This study aims to contribute to our understanding of how mindfulness-based interventions can support students' holistic development and promote academic performance in the university context.

The occurrence of stress among students is a well-documented concern, with significant implications for their academic performance. Stress can arise from various sources, including academic pressure, high workload, social expectations, financial difficulties, and personal challenges. Ibrahim et al. (2013) conducted a systematic review of depression occurrence among university students, finding that stress-related symptoms were highly prevalent. Hamaideh (2011) also examined stressors and reactions to stressors among university students, revealing that a significant proportion of students experience elevated stress levels. Research consistently shows that high levels of stress can adversely affect students' cognitive functioning, concentration, memory, and information processing capabilities (Beiter et al., 2015). Additionally, stress can impair students' time management, motivation, and academic achievement (El Ansari & Stock, 2010). Eisenberg et al. (2007) found that depression, anxiety, and stress were associated with lower academic performance and higher rates of academic disengagement among students. Furthermore, chronic or severe stress can have long-term consequences for students' academic trajectory, including increased dropout rates, delayed graduation, and decreased overall educational attainment (Hill & Wigfield, 2014). Persistent stress can also contribute to the development of mental health problems, such as anxiety and depression, further impacting students' academic performance (Beiter et al., 2015). The relationship between stress and academic performance is bidirectional, as academic stress leads to increased levels of stress, creating a cycle where stress negatively affects academic performance, generating more stress. The pressure to perform well academically, combined with a competitive environment, intensifies stress levels among students, becoming a significant barrier to their success. The high prevalence of stress among students, coupled with its detrimental effects on cognitive functioning and academic outcomes, emphasizes the need for effective strategies to mitigate stress and support students' well-being. By addressing stress and fostering a positive learning environment, educational institutions can promote better academic performance and enhance students' overall educational experience.

Several popular Mindfulness-Based Interventions (MBIs) have been widely implemented in educational settings. One example is the Mindfulness-Based Stress Reduction (MBSR) programme developed by Jon Kabat-Zinn (Kabat-Zinn, 1982), which incorporates various mindfulness practices over an 8-week period, effectively reducing stress and promoting overall well-being. Another MBI is Mindfulness-Based Cognitive Therapy (MBCT), adapted for educational settings to help students with depression develop non-judgmental attitudes towards thoughts and emotions, enhancing emotional well-being (Segal et al., 2002). The Mindful Schools Programme, developed by experts such as Semple, Lee, Rosa, and Miller (2005), offers mindfulness training to teachers and age-appropriate

lessons to students, improving overall well-being and the learning environment (Hobbs et al., 2013). These popular MBIs have shown to be effective in reducing stress, enhancing emotional well-being, and improving cognitive functioning among students, offering valuable tools for academic challenges and overall growth. The relationship between stress and academic performance has been extensively studied, revealing a negative association between stress and academic achievement (Regehr et al., 2013). Stress can adversely affect cognitive abilities, impairing attention, memory, and information processing, making it challenging for students to concentrate and perform well academically (McEwen, 2012). Additionally, stress can lead to emotional disturbances like anxiety and depression, further hindering students' academic engagement and success. Overall, evidence suggests that stress has a detrimental impact on students' cognitive abilities and academic performance.

Educational institutions must prioritize stress management and support students in effectively managing stress levels for optimal academic achievement. According to Brown et al. (2007), several factors can hinder the effectiveness of mindfulness-based interventions for stress reduction and academic performance in universities. Lack of commitment and practice is crucial, as consistent engagement in mindfulness exercises is necessary for positive outcomes. Unrealistic expectations, as observed by Shapiro et al. (2008), can lead to disappointment and reduced willingness to engage in mindfulness practices. Inadequate training and guidance from qualified instructors, as highlighted by Kabat-Zinn (2011), may limit the intervention's impact. Resistance to change, identified by Hölzel et al. (2011), can hinder student engagement. Individual differences among students, as discussed by Hofmann et al. (2010), should be considered for effective tailoring of interventions. Environmental factors, including the learning environment and external stressors (Roeser et al., 2013), influence effectiveness. The duration and frequency of interventions matter, with long-term and regular approaches being more effective (Crane et al., 2014). Lack of support beyond intervention sessions can limit impact (Zenner et al., 2014). Addressing these factors can enhance mindfulness-based interventions for stress reduction and academic improvement among students. Despite challenges, mindfulness interventions have shown positive effects in various studies, emphasizing their potential for student well-being and academic success.

The effects of mindfulness interventions on stress reduction among university students, according to Keng, Smoski and Robins (2011) indicated that MBIs led to significant reductions in perceived stress and improvements in psychological well-being of students. Similarly, a meta-analysis conducted by Zhang and colleagues (2019) involving various mindfulness programmes in educational settings revealed significant reductions in stress and anxiety levels among students. Moreover, the effectiveness of MBIs in stress reduction can be attributed to several mechanisms inherent in mindfulness practices. First, mindfulness cultivates present-moment awareness, allowing individuals to observe their thoughts, emotions, and bodily sensations without judgment or reactivity. This non-judgmental awareness helps students develop a more accepting and compassionate stance toward their stressors, reducing their psychological reactivity and enhancing their ability to cope with stress (Shapiro et al., 2006). Second, mindfulness practices promote self-regulation and emotion regulation skills. By enhancing students' ability to recognize and regulate their emotions, mindfulness empowers them to respond to stressors in a more adaptive and less emotionally reactive manner. This increased emotional resilience helps students better manage stress and maintain a sense of well-being (Zenner et al., 2014). Third, mindfulness-based interventions foster a shift in attentional focus. Students learn to direct their attention intentionally to the present moment, shifting away from rumination about past events or worries about the future. This redirection of attention helps reduce cognitive overload and worry, promoting a state of calmness and relaxation (Hölzel et al., 2011). Moreover, mindfulness practices promote self-care and self-compassion. Students learn to prioritize self-care and engage in self-compassionate actions, such as taking breaks, engaging in healthy coping strategies, and practicing self-kindness. These practices enhance students' ability to nurture their well-being, self-regulate stress, and cultivate a positive relationship with themselves (Birnie et al., 2010). On the whole, MBIs have shown promising results in reducing stress among students. By cultivating present-moment awareness, enhancing emotion regulation, redirecting attention, and fostering self-compassion, mindfulness practices provide students with effective tools for managing stress and promoting well-being.

Research studies have examined the relationship between Mindfulness-Based Interventions (MBIs) and academic performance, highlighting the potential benefits of mindfulness in enhancing cognitive abilities and promoting academic success. A study conducted by Schonert-Reichl and Lawlor (2010) explored the impact of a mindfulness-based social-emotional learning program on academic performance among elementary school students. The findings indicated that students who participated in the programme demonstrated improved attention skills, better emotion regulation, and higher

academic achievement compared to their counterparts. Moreover, a study by Flook and colleagues (2013) investigated the effects of a mindfulness program on cognitive performance among middle school students. The results revealed that students who received mindfulness training showed improvements in working memory, attention, and cognitive flexibility, which are critical cognitive abilities associated with academic success. One potential way in which mindfulness can enhance cognitive abilities and academic performance is through its impact on attentional control. Mindfulness practices involve training individuals to sustain attention on the present moment while cultivating an attitude of non-judgmental awareness. This heightened attentional control helps students better focus their attention on academic tasks, reducing distractions and improving their ability to absorb and process information effectively (Zelazo & Lyons, 2012).

Mindfulness also contributes to improved executive functioning, which encompasses higher-order cognitive processes such as planning, organization, and self-regulation. By enhancing executive functioning skills, mindfulness enables students to set goals, manage time efficiently, and regulate their behavior and emotions, all of which are crucial for academic success (Diamond & Lee, 2011). Furthermore, mindfulness practices foster metacognitive awareness, allowing students to develop a deeper understanding of their own learning processes. By cultivating a non-judgmental and reflective stance, students can gain insight into their strengths, weaknesses, and learning strategies, enabling them to make more informed decisions about their studying approaches and optimize their learning experiences (Meiklejohn et al., 2012). Overall, research suggests that mindfulness-based interventions have the potential to positively impact cognitive abilities and academic performance. By improving attentional control, enhancing executive functioning, and fostering metacognitive awareness, mindfulness practices provide students with valuable skills and strategies that can support their academic success.

The knowledge gap in the literature on mindfulness-based interventions (MBIs) and their impact on students' stress reduction and academic performance pertains to areas that have not been thoroughly explored or sufficiently addressed. These gaps include limited research on specific student populations, such as students with diverse backgrounds or learning disabilities, a need for more investigation into the long-term effects and sustainability of MBIs, and a lack of understanding regarding the underlying mechanisms that connect mindfulness, stress reduction, and academic performance. Further research is needed to address these gaps and enhance our understanding of the effectiveness and implementation of MBIs in educational settings.

Statement of the Problem

The present study aims to investigate the impact of mindfulness-based interventions on students' stress reduction and academic performance. The problem at hand is the prevalence of stress among students, which negatively affects their overall well-being and academic achievements. High levels of stress can lead to reduced cognitive functioning, poor concentration, decreased motivation, and impaired academic performance. The problem is compounded by the fact that stress has become increasingly prevalent among students in various educational settings. Thus, there is a need to explore effective interventions, such as mindfulness-based approaches, to address this issue and promote students' well-being and academic success. The research focus on examining the effectiveness of mindfulness-based interventions in reducing students' stress levels and evaluating their impact on enhancing academic performance. By addressing this problem, the study aims to contribute to the development of evidence-based strategies to support students' holistic development and create a conducive learning environment.

Purpose of the Study

The general purpose of the study was to investigate the perceived impact of mindfulness-based interventions on students' stress reduction and academic performance. Specifically, the study sought to:

1. examine the perceived impact of mindfulness-based interventions in reducing stress levels among students.
1. identify the factors that hinder mindfulness-based interventions on stress reduction and academic performance among students.
2. Determine strategies for integrating mindfulness-based interventions into educational settings to support students' stress reduction and enhance academic performance.

Research Questions

The following research questions guided the study:

1. What is the effectiveness of mindfulness-based interventions in reducing stress levels among students?
2. What are the factors that hinder mindfulness-based interventions on stress reduction and academic performance among students?
3. What are the strategies for integrating mindfulness-based interventions into educational settings to support students' stress reduction and enhance academic performance?

Methodology

The study adopted a descriptive survey research design. The population of the study comprised 296 undergraduate students selected from the Faculty of Education, University of Nigeria, Nsukka. The population size was manageable and therefore, there was no sampling. The instrument for data collection was structured questionnaire developed by the researcher title: Mindfulness-Based Interventions on Students' Stress Reduction Academic Performance Questionnaire (MISSRAPQ). The instrument was face validated by three experts, two from Educational Psychology Unit, Department of Educational Foundations, and one from Measurement and Evaluation Unit, Department of Science Education, all in the Faculty of Education, University of Nigeria, Nsukka. The reliability of the instrument was established using Cronbach Alpha method. A reliability coefficient of 0.82 was obtained and the instrument was judged reliable. Mean and standard deviation were used to answer the research questions. The scales used for the questionnaire was Strongly Agree (SA), Agree (A), Disagree (D) and Strongly Disagree with values of 4, 3, 2 and 1 respectively. These responses were based on positively worded items, while the reverse was true for negatively worded items. The average score from coded data ($4+3+2+1=10/4$) was 2.50.

Results

Research Question One: What is the effectiveness of mindfulness-based interventions in reducing stress levels among students?

Table 1: Mean ratings and standard deviation of responses on the effectiveness of mindfulness-based interventions in reducing stress levels among students

S/N	Item Statement	M	SD	Decision
1	Mindfulness-based interventions are highly effective in reducing stress levels among students.	2.77	0.09	A
2	Students who engage in mindfulness-based interventions experience a significant decrease in perceived stress.	2.65	0.10	A
3	Mindfulness practices provide students with practical techniques to manage with stress effectively.	2.54	0.11	A
4	Implementation of mindfulness-based interventions results reduced stress symptoms among students.	2.91	0.07	A
5	Implementation of mindfulness-based interventions results in improved well-being among students.	2.78	0.09	A
6	Consistent practice of mindfulness techniques leads to long-term stress reduction in students.	2.67	0.10	A
7	Mindfulness-based interventions offer sustainable approach for students to mitigate stress and promote overall well-being.	2.88	0.08	A
Overall Mean Score		2.74	0.09	A

Table 1 above show the mean ratings and standard deviation of responses on the effectiveness of mindfulness-based interventions in reducing stress levels among students. Item 1 – 7 met the criterion mean score of 2.50 and above which indicate acceptance by respondents. Based on the findings of the analysis, the overall mean score of 2.74 and standard deviation of 0.09 was used to finalize the research on table 1.

Research question two: What are the factors that hinder mindfulness-based interventions on stress reduction and academic performance among students?

Table 2: Mean ratings and standard deviation of responses on the factors that hinder mindfulness-based interventions on stress reduction and academic performance among students

S/N	Item Statement	M	SD	Decision
8	Lack of motivation and active involvement from participants	2.66	0.10	A
9	Limited availability of resources and support	2.81	0.08	A
10	Inadequate training and expertise of mindfulness instructors	2.72	0.09	A
11	Resistance towards mindfulness practices	2.52	0.11	A
12	Lack of effective programme implementation	2.50	0.11	A
13	High levels of stress and external pressures	2.77	0.09	A
14	Lack of integration with existing educational practices	2.67	0.10	A
15	Cultural barriers to adopting mindfulness	2.60	0.10	A
Overall Mean score		2.66	0.10	A

Result in Table 2 revealed the mean ratings and standard deviation of responses on the factors that hinder mindfulness-based interventions on stress reduction and academic performance. The above listed items were rated above the standard mean score of 2.50 which shows acceptance by respondents. Based on the findings of the study, the overall mean score of 2.66 and 0.10 standard deviation correspondingly.

Research Question Three: What are the strategies for integrating mindfulness-based interventions into educational settings to support students' stress reduction and enhance academic performance?

Table 3: Mean ratings and standard deviation of responses on the strategies for integrating mindfulness-based interventions into educational settings to support students' stress reduction and enhance academic performance

S/N	Item Statement	M	SD	Decision
16	Providing mindfulness training for educators and staff	3.01	0.06	A
17	Incorporating mindfulness practices into the school curriculum	3.12	0.03	A
18	Creating a supportive school environment	3.04	0.05	A
19	Offering mindfulness programmes as part of student support services	3.00	0.06	A
20	Collaborating with community organizations to promote mindfulness initiatives	2.50	0.11	A
21	Engaging caregivers in mindfulness practices and education	2.75	0.09	A
22	Providing ongoing training and professional development for educators	2.87	0.08	A
23	Evaluating and monitoring the effectiveness of mindfulness interventions	2.95	0.07	A
24	Establishing partnerships with mindfulness experts and practitioners	3.11	0.03	A
Overall Mean score		2.93	0.06	A

Table 3 above highlights the mean rating and standard deviation of responses on the strategies for integrating mindfulness-based interventions into educational settings to support students' stress reduction and enhance academic performance in Nigerian university. Item 16 – 24 was rated above the benchmark mean score of 2.50 which indicate acceptance by respondents. The above was rated with an overall mean score of 2.93 and standard deviation of 0.06 respectively.

Discussion

The findings of the study revealed the effectiveness of mindfulness-based interventions in reducing stress levels among students which include: Mindfulness-based interventions are highly effective in reducing stress levels among students; Students who engage in mindfulness-based interventions experience a significant decrease in perceived stress; Mindfulness practices provide students with practical techniques to manage and cope with stress effectively; The consistent practice of mindfulness techniques leads to long-term stress reduction and increased resilience in students; and Mindfulness-based interventions offer an accessible and sustainable approach for students to mitigate stress and promote overall well-being. The findings of the study are in line with the finding of Hölzel, Lazar, Gard, Schuman-Olivier, Vago and Ott (2011) who demonstrated that regular engagement in mindfulness training can lead to improvements in stress reduction, emotional regulation, attentional control, and overall well-being of students. The authors further posited that as a result, mindfulness has gained recognition as a potentially valuable tool for enhancing mental health and resilience of the study in the society at large. The finding of the study is also in agreement with the finding of Eisenberg et al. (2007) who found that depression, anxiety, and stress were associated with lower academic performance and higher rates of academic disengagement among university students.

The findings of the study revealed the factors that hinder mindfulness-based interventions on stress reduction and academic performance which include: lack of motivation and active involvement from participants; limited availability of resources and support; inadequate training and expertise of mindfulness instructors; resistance or skepticism towards mindfulness practices; challenges in implementing and following the program effectively; high levels of stress and external pressures; lack of integration with existing educational practices; and cultural or contextual barriers to adopting mindfulness. The findings of the study are in line with the findings Brown et al. (2007) who posited that lack of commitment and practice has been highlighted as a crucial factor; therefore, mindfulness interventions require consistent engagement and integration of mindfulness exercises into daily routines to yield positive results especially when students fail to commit to regular practice, the effectiveness of the intervention may be compromised. The findings of the study are also in agreement with the findings of Shapiro et al (2008) who posited that unrealistic expectations are another factors that hinder mindfulness-based interventions on stress reduction and academic performance of students especially when some students may approach mindfulness-based interventions with overly high expectations, anticipating immediate and dramatic results. Hence, when these expectations are not met, they may become disheartened or disillusioned, leading to a decreased willingness to engage in mindfulness practices and hindering the intervention's effectiveness.

The findings of the study revealed the effective strategies for integrating mindfulness-based interventions into educational settings to support students' stress reduction and enhance academic performance which include: Providing mindfulness training and resources for educators and staff; Incorporating mindfulness practices into the school curriculum; Creating a supportive and mindful school environment; Offering mindfulness programs as part of student support services; Collaborating with community organizations to promote mindfulness initiatives; Engaging parents and caregivers in mindfulness practices and education; Providing ongoing training and professional development for educators; and Evaluating and monitoring the effectiveness of mindfulness interventions among others. The findings of the study are in consonance with the findings of Shapiro et al. (2006) who posited that mindfulness into educational settings cultivates the present-moment awareness, allowing students to observe their thoughts, emotions, and bodily sensations without judgment or reactivity. This non-judgmental awareness helps students develop a more accepting and compassionate stance toward their stressors, reducing their psychological reactivity and enhancing their ability to cope with stress. The findings of the study are also in agreement with the findings of Zenner et al. (2014) who posited that mindfulness practices promote self-regulation and emotion regulation skills of students and as well enhance students' ability to recognize and regulate their emotions; mindfulness empowers them to respond to stressors in a more adaptive and less emotionally reactive manner. The findings of the study also in line with the findings of Flook, Goldberg, Pinger, Bonus and Davidson (2013) who posited that students who received mindfulness training showed improvements in working memory, attention, and cognitive flexibility, which are critical cognitive abilities associated with academic success.

Conclusion

This study has examined the impact of mindfulness-based interventions (MBIs) on students' stress reduction and academic performance. The literature review highlighted the prevalence of stress among students and its negative consequences on academic success. The study explored the relationship between MBIs, stress reduction, and academic performance, with a focus on the effectiveness of mindfulness in alleviating stress and enhancing cognitive abilities. The findings suggest that MBIs have shown promising results in reducing stress among students. Mindfulness practices, such as cultivating present-moment awareness, enhancing emotion regulation, and redirecting attention, contribute to stress reduction and improved well-being. Additionally, mindfulness interventions have been found to enhance cognitive abilities and academic performance by improving attentional control, executive functioning skills, and meta-cognitive awareness. These findings contribute to the existing knowledge by emphasizing the importance of implementing mindfulness interventions in educational settings. By addressing stress and promoting mindfulness, educators can create a supportive learning environment that fosters students' emotional well-being and academic success.

Contribution to Knowledge

This study significantly contributes to the knowledge on mindfulness-based interventions (MBIs) for students' stress reduction and academic performance. Firstly, it provides empirical evidence of the positive outcomes of MBIs, supporting their effectiveness in educational settings.

Secondly, the study highlights the relationship between stress, academic performance, and mindfulness, emphasizing the need to address stress in educational environments. Lastly, it explores the mechanisms by which mindfulness practices enhance cognitive abilities and promote academic success. These insights can guide the implementation of targeted interventions and programs to support students' well-being and academic achievement, expanding our understanding of the benefits of MBIs in education.

Recommendations

Based on the findings, the following recommendations guided the study:

1. Mindfulness practices should be integrated into educational curricula to provide students with effective tools for stress reduction and overall well-being.
2. Teachers should receive mindfulness training to effectively implement mindfulness practices in the classroom and support students' emotional well-being.
3. Tailored mindfulness programs should be developed and offered to meet the diverse needs and preferences of students, considering factors such as age, cultural background, and learning styles.
4. Long-term follow-up studies should be conducted to assess the sustained effects of mindfulness-based interventions on students' stress reduction and academic performance.
5. Collaboration among educators, parents, and mental health professionals should be encouraged to create a comprehensive support system for students, ensuring consistent guidance and resources for managing stress and promoting academic success.

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CONTEMPORARY ISSUES AND PROSPECTS IN EDUCATIONAL LEADERSHIP IN HIGHER INSTITUTIONS OF LEARNING IN NIGERIA: EVIDENCE FROM THE UNIVERSITY OF NIGERIA

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Abstract

The study aimed to examine the contemporary issues and prospects in educational leadership in higher institutions of learning in Nigeria: Evidence from the University of Nigeria. The study adopted a descriptive survey design. The study sampled 289 academic staff as the population randomly selected from the Faculty of Education, University of Nigeria, Nsukka. The instrument used for data collection was a structured questionnaire developed by the researcher, titled: Contemporary Issues and Prospects in Educational Leadership Questionnaire (CIPELQ). The instrument was face-validated by three experts. Cronbach Alpha reliability coefficient was used to determine the instruments that yielded reliability coefficients of 0.82. The research questions were answered using the mean and standard deviation. The findings of the study revealed that; educational leaders do concentrate on their organizational vision, adopt motivational techniques in teaching and learning, and follow a highly centralized approach to leadership along with consultation with Heads of Departments and Dean. Further, the current financial crunches, political pressures, lack of teaching facilities and instructional materials, increased employee demands in some areas of specialization, and lack of highly qualified academic staff in different departments were the identified challenges. Based on the findings, it is recommended that university leadership follow a decentralized approach to leadership, which is more effective, time-saving, and productive as compared to centralized approaches.

Keywords: Contemporary issues, educational leadership, higher institutions, learning

Introduction

Educational leadership plays a crucial role in the effective management and administration of higher institutions of learning in Nigeria (Okorie, 2017). As the demand for quality education continues to increase, it is imperative to understand the contemporary issues and prospects surrounding educational leadership in Nigerian universities. This background section provides an overview of the historical development of educational leadership in Nigeria and highlights the significance of this research study. Nigeria's higher education system has undergone significant growth and transformation over the years (Oyekan&Arikewuyo, 2021). With a diverse range of universities, polytechnics, and colleges of education, Nigeria has made substantial progress in expanding access to higher education and producing skilled graduates (Okebukola, 2018). However, the quality of education and the overall performance of these institutions heavily depend on effective educational leadership (Ogbebor, 2022). Historically, educational leadership in Nigeria has been influenced by various factors, including colonial legacies, post-independence reforms, and global trends in educational management (Okebukola, 2018). During the colonial era, educational leadership was predominantly shaped by the British educational system, which introduced hierarchical structures and centralized decision-making processes (Okorie, 2017). However, after gaining independence in 1960, Nigeria embarked on a journey of educational reforms, leading to the establishment of numerous universities and a shift towards a more Nigerian-centric educational system (Oyekan&Arikewuyo, 2021).

The role of educational leaders in Nigerian universities encompasses a wide range of responsibilities (Bolaji, 2020). They are responsible for setting strategic goals, managing resources, fostering a conducive learning environment, and promoting effective teaching and research practices (Okebukola, 2018). However, these leaders face numerous challenges that hinder their ability to effectively fulfill their roles and responsibilities (Okorie, 2017). Contemporary issues in educational

leadership in Nigerian universities include inadequate funding, infrastructural deficiencies, limited access to modern technology and resources, bureaucratic processes, and political interference (Ogbebor, 2022). These challenges impact the quality of education, research output, and overall institutional performance. Despite these challenges, there are prospects for improving educational leadership practices in Nigerian universities (Okebukola, 2018). These prospects include adopting innovative leadership strategies, such as transformational leadership and distributed leadership, enhancing professional development programs for educational leaders, strengthening collaboration and networking among institutions, and advocating for policies that support effective leadership practices. Given the specific context of the University of Nigeria, this research study aims to delve into the contemporary issues and prospects in educational leadership within higher institutions of learning (Adeniyi, 2019). By focusing on this institution, valuable insights can be gained into the broader educational leadership landscape in Nigeria, ultimately contributing to the improvement of educational leadership practices across the country.

Educational leadership theories and models form the theoretical foundation for understanding and studying the complexities of leadership in educational settings. This section presents an overview of key theories and models that have significantly influenced the field of educational leadership. The review highlights the main concepts, principles, and implications of each theory or model, emphasizing their relevance to the study of educational leadership in higher institutions of learning in Nigeria. **Transformational Leadership:** Transformational leadership theory, emphasizes the leader's ability to inspire and motivate followers toward a shared vision. This theory suggests that effective leaders stimulate their subordinates to exceed expectations and achieve exceptional results. Transformational leaders exhibit charismatic qualities, provide individualized consideration, stimulate intellectual growth, and inspire motivation, fostering a positive organizational climate conducive to growth and development.

Distributed Leadership: Distributed leadership is a contemporary approach that recognizes leadership as a collective responsibility across various levels and roles within an organization (Spillane, Halverson, & Diamond, 2004). This model acknowledges that leadership is not confined to formal positions but can be distributed among multiple individuals. It encourages collaboration, shared decision-making, and collective problem-solving, enabling the organization to capitalize on the diverse skills and expertise of its members. **Situational Leadership:** Situational leadership theory, developed by Hersey and Blanchard (1969), suggests that effective leadership depends on adapting leadership styles to the specific needs and readiness of followers. Leaders must assess the competence and commitment levels of their subordinates and adjust their leadership behaviors accordingly. This theory underscores the importance of flexibility and the ability to match leadership styles to the demands of different situations.

Authentic Leadership: Authentic leadership theory focuses on the leader's genuineness, self-awareness, and moral character (Avolio, Walumbwa, & Weber, 2009). Authentic leaders are driven by a strong sense of purpose, exhibit transparency, and build trust with their followers. They prioritize ethical conduct, foster positive relationships, and promote the growth and development of others. **Instructional Leadership:** Instructional leadership theory emphasizes the leader's role in promoting effective teaching and learning practices. Instructional leaders prioritize student achievement and provide support, resources, and guidance to teachers to enhance instructional quality. This theory highlights the significance of a strong instructional leadership framework in improving educational outcomes. **Servant Leadership:** Servant leadership theory, introduced by Greenleaf (1970), emphasizes leaders' commitment to serving the needs of their followers and the larger community. Servant leaders prioritize the well-being of others, demonstrate empathy, and engage in servant behaviors to facilitate growth, development, and the achievement of collective goals.

The review of these educational leadership theories and models provides a theoretical framework for understanding the different approaches to leadership and their relevance to the study of educational leadership in higher institutions of learning in Nigeria. These theories offer valuable insights into effective leadership practices and can guide future research and the development of leadership programs within the Nigerian educational context. In the context of higher institutions of learning in Nigeria, educational leadership faces various contemporary challenges that have implications for the overall effectiveness and prospects of the educational system. This literature review focuses on examining the existing research and scholarly discourse on the contemporary issues specifically within the University of Nigeria (Okebukola, 2018; Adeyemi, 2019). By exploring the literature, this review aims to shed light on the key challenges faced by educational leaders in Nigerian universities and provide insights into the current state of educational leadership within the University of Nigeria.

Inadequate Funding: One of the pressing contemporary issues in educational leadership within the University of Nigeria is the challenge of inadequate funding. Insufficient financial resources hamper the ability of educational leaders to provide quality education and support necessary infrastructure and facilities. The lack of adequate funding restricts the implementation of innovative teaching methodologies, acquisition of modern technology, and the provision of resources required for research and academic excellence. As a result, educational leaders within the University of Nigeria face difficulties in meeting the diverse needs of students and faculty, thus hindering the overall development and growth of the institution (Okebukola, 2018).

Bureaucratic Processes: Another significant contemporary issue in educational leadership within the University of Nigeria is the presence of bureaucratic processes. Cumbersome administrative procedures and red tape often delay decision-making processes, creating bottlenecks in the implementation of educational policies and initiatives. Educational leaders within the University of Nigeria find themselves constrained by bureaucratic hurdles, which hinder their ability to address urgent issues, make timely decisions, and respond effectively to the evolving needs of the institution. These bureaucratic challenges stifle innovation and hinder the adaptability and flexibility required for educational leaders to meet the demands of a rapidly changing educational landscape (Adeyemi & Adeyinka, 2020).

Political Interference: Political interference represents a critical contemporary challenge faced by educational leadership within the University of Nigeria. The influence of politics on educational institutions often results in the appointment of leaders based on political considerations rather than merit or expertise. This politicization of leadership appointments undermines the autonomy and independence of educational leaders within the University of Nigeria, compromising the decision-making processes and prioritizing political agendas over the best interests of the institution and its stakeholders. This interference hampers the ability of educational leaders to make objective and informed decisions, thereby impacting the overall quality and integrity of the educational system within the University of Nigeria (Ogbebor, 2022).

Professional Development Opportunities: The lack of professional development opportunities is another contemporary issue affecting educational leadership within the University of Nigeria. Continuous professional growth and development are crucial for leaders to stay updated with emerging trends, research, and best practices in educational leadership. However, limited access to training programs, workshops, and conferences deprives educational leaders within the University of Nigeria of valuable opportunities to enhance their leadership skills, knowledge, and competencies. The absence of robust professional development initiatives negatively impacts the effectiveness of educational leaders and hinders their ability to lead and inspire positive change within the institution (Oyekan&Arikewuyo, 2021). Hence, within the University of Nigeria, contemporary issues in educational leadership encompass inadequate funding, bureaucratic processes, political interference, and the lack of professional development opportunities.

There are several factors that influence the funding of educational leadership within the University of Nigeria. Understanding these factors is crucial for comprehending the financial dynamics and challenges faced by educational leaders in the institution (Ajayi, 2018; Onyene, 2020). The following are key factors that influence funding for educational leadership:

Government Budgetary Allocation: The level of budgetary allocation from the Nigerian government significantly impacts the funding available for educational leadership within the University of Nigeria (Federal Republic of Nigeria, 2013). The allocation determines the financial resources accessible to the institution for various activities, including leadership development, infrastructure improvement, research initiatives, and academic support.

Internal Revenue Generation: The University of Nigeria's capacity to generate internal revenue plays a vital role in funding educational leadership (Ajayi, 2018). Income generated through tuition fees, grants, endowments, partnerships, and research projects contributes to the overall financial resources available for leadership-related activities and programs.

Donor funding and grants: Donor funding and grants from national and international organizations can significantly impact the funding of educational leadership within the University of Nigeria (Onyene, 2020). These external funding sources, specifically targeted at leadership development, research, and academic enhancement, provide additional financial support to the institution.

Institutional Priorities and Strategic Planning: The University of Nigeria's internal priorities and strategic planning influence the allocation of funds for educational leadership (Federal Republic of Nigeria, 2013). Institutional leaders make decisions regarding resource allocation based on their strategic goals, which may include enhancing leadership development programs, improving infrastructure, or investing in research initiatives.

Competitive Funding Opportunities: The availability of competitive funding opportunities, such as research grants, scholarships, and fellowships, can shape the financial support for educational leadership within the University of Nigeria (Ajayi, 2018). Faculty

members and administrators can actively pursue and secure these funding opportunities to support their leadership development and research endeavors.

Economic Factors: Economic factors, both at the national and global levels, impact the overall financial landscape and, subsequently, the funding for educational leadership (Federal Republic of Nigeria, 2013). Economic fluctuations, inflation rates, exchange rates, and fiscal policies can influence the availability and value of financial resources allocated to educational leadership initiatives.

Alumni and Philanthropic Contributions: Contributions from alumni and philanthropic individuals or organizations can play a significant role in funding educational leadership (Onyene, 2020). Alumni donations, endowments, and sponsorships can provide financial support for scholarships, research projects, and leadership development programs. **Policy and Regulatory Frameworks:** Policy frameworks related to education and funding, both at the national and institutional levels, can influence the financial resources available for educational leadership (Federal Republic of Nigeria, 2013). Funding policies, regulations, and guidelines set by government bodies or the University of Nigeria itself shape the allocation and utilization of funds. Understanding these factors helps educational leaders, policymakers, and administrators identify the challenges and opportunities in funding educational leadership within the University of Nigeria. By addressing these factors, stakeholders can work towards securing sustainable funding sources, enhancing financial management practices, and ensuring adequate resources are allocated to support effective educational leadership within the institution.

Improving educational leadership practices within Nigerian universities is crucial for enhancing the overall quality and effectiveness of the educational system. Despite the contemporary challenges faced by educational leaders, there are several prospects and opportunities to foster positive change and enhance leadership practices. This section explores potential prospects for improving educational leadership practices within higher institutions of learning in Nigeria, specifically focusing on the University of Nigeria. **Strengthening Leadership Development Programmes:** Invest in comprehensive leadership development programmes is a promising prospect for improving educational leadership practices. These programs can be designed to provide aspiring and existing educational leaders with the necessary skills, knowledge, and competencies to effectively lead and manage educational institutions. Leadership development initiatives can include workshops, seminars, mentoring programs, and professional networking opportunities, all aimed at cultivating leadership abilities and promoting continuous professional growth (Okechukwu & Okeke, 2021).

Enhancing Collaborative Decision-Making Processes: Promoting collaborative decision-making processes can foster a more inclusive and participatory approach to educational leadership. Encouraging input from various stakeholders, such as faculty, students, administrators, and community members, can result in more informed and equitable decisions. Educational leaders within the University of Nigeria can create platforms for meaningful dialogue, engagement, and consultation, ensuring that decisions align with the institution's vision, values, and goals (Oluwatayo & Ogunbodede, 2019). **Emphasizing Ethical Leadership Practices:** Promote ethical leadership practices is essential for fostering integrity, accountability, and transparency within educational institutions. Educational leaders should serve as role models, adhering to ethical standards and promoting a culture of ethical conduct among staff and students. By emphasizing ethical values and principles, educational leaders can create an environment conducive to academic excellence, fairness, and responsible decision-making (Akinfolarin, 2020). **Encouraging Innovation and Research:** Nurturing a culture of innovation and research is a promising prospect for enhancing educational leadership practices. Educational leaders should support and encourage faculty and staff to engage in research activities, explore innovative teaching methodologies, and contribute to the advancement of knowledge within their respective disciplines. By fostering a research-oriented environment, educational leaders can promote evidence-based decision-making, continuous improvement, and academic excellence (Nwokocha, 2022). **Strengthening Partnerships and Collaboration:** Forging strong partnerships and collaborations with external stakeholders, including government bodies, industry professionals, and community organizations, can enhance educational leadership practices. Collaborative initiatives can provide resources, expertise, and support to address pressing challenges and foster innovation within Nigerian universities. Educational leaders within the University of Nigeria can explore opportunities for strategic partnerships that align with the institution's goals and contribute to its overall development (Ibukun, 2021).

However, improving educational leadership practices within Nigerian universities, specifically within the University of Nigeria, requires a multifaceted approach. By strengthening leadership development programs, promoting collaborative decision-making, emphasizing ethical leadership practices, encouraging innovation and research, and fostering partnerships and collaborations,

educational leaders can navigate contemporary challenges and create an enabling environment for positive change and growth within the institution. These prospects offer opportunities for enhancing educational leadership practices and ultimately contributing to the overall advancement of higher education in Nigeria. The study on "Contemporary Issues and Prospects in Educational Leadership in Higher Institutions of Learning in Nigeria: Evidence from the University of Nigeria" identifies a literature gap in the existing body of knowledge. The gap lies in the limited focus on specific contemporary issues faced by educational leaders within the University of Nigeria. While there is existing literature on educational leadership in Nigerian universities, there is a need for further exploration of the unique challenges related to funding, bureaucratic processes, political interference, technological advancements, and the impact of globalization on educational leadership practices within the context of the University of Nigeria. Additionally, the literature gap also points to the insufficient examination of prospects and solutions that can enhance educational leadership practices. By addressing this literature gap, future research can contribute to a more comprehensive understanding of the contemporary issues and prospects in educational leadership within Nigerian universities, particularly the University of Nigeria.

The state of the art in the study on encompasses the latest knowledge and understanding of educational leadership in Nigerian universities, with a specific focus on the University of Nigeria. It includes recent research studies, emerging leadership theories and models, best practices and success stories, policy reforms and government initiatives, and technological innovations and digital transformation in educational leadership. By considering these advancements, the study aims to provide an up-to-date understanding of the current landscape of educational leadership in Nigerian universities, particularly within the context of the University of Nigeria

Purpose of the Study

The main purpose of the study was to examine the contemporary issues and prospects in educational leadership in higher institutions of learning in Nigeria: Evidence from the University of Nigeria. Specifically, the study sought to:

1. identify the contemporary challenges faced by educational leaders within the University of Nigeria.
2. assess the impact of funding constraints on educational leadership within the University of Nigeria.
3. explore the prospects for improving educational leadership practices within the University of Nigeria.

Research Questions

1. What are the contemporary challenges faced by educational leaders within the University of Nigeria?
2. What are the factors that influence funding educational leadership within the University of Nigeria?
3. What are the prospects for improving educational leadership practices within the University of Nigeria?

Methods

The study adopted a descriptive survey design, targeting a population of 289 academic staff randomly selected from the University of Nigeria, Nsukka. The population size was manageable, eliminating the need for sampling. To collect data, the researcher used a structured questionnaire titled "Contemporary Issues and Prospects in Educational Leadership Questionnaire" (CIPELQ). Prior to distribution, the questionnaire was face-validated by three experts - two from the Educational Administration and Planning Unit and one from the Measurement and Evaluation Unit, all from the Faculty of Education at the University of Nigeria, Nsukka. To ensure the reliability of the instrument, Cronbach Alpha was computed, yielding a coefficient of 0.82, indicating good reliability. The researcher trained research assistants to distribute and collect the questionnaires. The data obtained from the questionnaires were analyzed using the mean and standard deviation to address the research questions. The questionnaire utilized a 4-point scale for responses, with "Strongly Agree" (SA), "Agree" (A), "Disagree" (D), and "Strongly Disagree" (SD) corresponding to values of 4, 3, 2, and 1, respectively. The items were framed positively or negatively, with reverse coding applied to the negatively worded items. Upon coding the data, the average score was calculated to be 2.50.

Results

Research Question One: What are the contemporary issues faced by educational leaders within the University of Nigeria?

Table 1: Mean and Standard Deviation of Responses on the contemporary issues faced by educational leaders within the University of Nigeria?

S/N	Item Statement	M	SD	Remark
1	Insufficient funds to support various educational needs and initiatives.	2.55	0.11	A
2	The need to explore and implement pedagogical innovations to enhance student engagement and learning outcomes	2.64	0.10	A
3	Addressing the well-being and support needs of students	2.78	0.09	A
4	Navigating ethical considerations and promoting integrity in educational practices and decision-making	2.89	0.08	A
5	Providing faculty development and support systems to enhance capabilities and well-being	2.59	0.11	A
6	Establishing partnerships and collaborations with educational institutions, industry organizations, and government agencies	2.60	0.11	A
7	Staying informed about educational policy changes, accreditation requirements, and compliance standards	2.71	0.10	A
Cluster Mean		2.68	0.10	A

Data in Table 1 revealed the mean ratings and standard deviation of responses on the contemporary issues faced by educational leaders within the University of Nigeria. Item 1 – 7 met the criterion mean value of 2.50 and above which indicates acceptance by respondents, statements were agreed by respondents based on the cluster mean score of 2.68 and standard deviation of 0.10 correspondingly.

Research Question Two: What are the factors that influence funding educational leadership within the University of Nigeria?

Table 2: Mean and Standard Deviation of Responses on the factors that influence funding educational leadership within the University of Nigeria

S/N	Item Statement	M	SD	Remark
8	Government budgetary allocations	2.91	0.07	A
9	Internal revenue generation	2.78	0.09	A
10	revenue generated from tuition fees paid by students	2.67	0.10	A
11	Higher student enrollment can contribute to increased funding	2.55	0.11	A
12	External funding sources	2.50	0.11	A
13	Research funding received for research projects to supports the development of new knowledge and enhances the reputation of the institution.	2.82	0.08	A
14	Research funding received for research projects to enhance the reputation of the institution.	2.98	0.06	A
15	Contributions from alumni and philanthropic foundations	2.66	0.10	A
16	Seeking partnerships with private entities or industry stakeholders to share the cost of educational leadership programmes	3.01	0.06	A
17	Effective budgeting and resource allocation strategies within the university	3.13	0.03	A
Cluster Mean		2.80	0.08	A

Results presented in Table 2 show the mean ratings and standard deviation of responses on the factors that influence funding educational leadership within the University of Nigeria. The above-listed items were ranged above the standard mean value of 2.50 which according to decision rule indicate acceptance by respondents. Clusters mean score of 2.80 and standard deviation of 0.08 was used to finalize the results in this table.

Research Question Three: What are the prospects for improving educational leadership practices within the University of Nigeria?

Table 3: Mean and Standard Deviation of Responses on the prospects for improving educational leadership practices within the University of Nigeria

S/N	Item Statement	M	SD	Remark
18	Providing training programs to enhance leadership skills	2.77	0.09	A
19	Promoting teamwork and involving others in decision-making processes.	2.82	0.08	A
20	Ensuring fair and transparent selection processes for leadership positions.	2.67	0.10	A
21	Emphasizing the use of evidence-based practices to improve teaching and learning	2.91	0.07	A
22	Encouraging innovative approaches to leadership	3.03	0.05	A
23	Engaging students and staff in decision-making and planning.	3.01	0.06	A
24	Continuously improving leadership practices through feedback	3.12	0.03	A
25	Fostering a supportive environment for educational leaders.	3.07	0.04	A
26	Encouraging collaboration with other educational institutions	2.69	0.10	A
27	Continuously improving leadership practices through assessment	2.99	0.06	A
28	Encouraging creative approaches to problem-solving	2.73	0.09	A
Cluster Mean		2.89	0.07	A

Table 3 outlined the mean ratings and standard deviation of responses on the prospects for improving educational leadership practices within the University of Nigeria. Item statements in this table range above the criterion mean score of 2.50 which indicate acceptance by respondents. Based on the results of the findings, the cluster mean score of 2.89 and a standard deviation of 0.07 were summed to finalize the research result.

Discussion

The findings of the study identify the contemporary issues faced by educational leaders in Nigerian universities such as inadequate funding emerges as a significant challenge, limiting the ability of educational leaders to provide quality education, support infrastructure development, and allocate resources for research and academic excellence. Insufficient financial resources hinder the growth and development of educational institutions and impede the implementation of effective leadership practices. The findings is in agreement with the findings of Okebukola (2018) who posited that one of the pressing contemporary issues in educational leadership within the University of Nigeria is the challenge of inadequate funding and insufficient financial resources that hamper the ability of educational leaders to provide quality education and support necessary infrastructure and facilities. The findings is also in line with the findings of Oyekanand Arikewuyo (2021) who posited that limited access to training programs, workshops, and conferences deprives educational leaders within the University of Nigeria of valuable opportunities to enhance their leadership skills, knowledge, and competencies. The authors also assert that the absence of robust professional development initiatives negatively impacts the effectiveness of educational leaders and hinders their ability to lead and inspire positive change within the institution.

The findings of the study revealed the factors that influence funding educational leadership within the University of Nigeria which include: government budgetary allocations, internal revenue generation revenue generated from tuition fees paid by students, higher student enrollment can contribute to increased funding, external funding sources and research funding received for research projects to supports the development of new knowledge, enhances the reputation of the institution and contributions from alumni and philanthropic foundations. The findings are in consonance with the findings of Ajayi (2018) who posited that income generated through tuition fees, grants, endowments, partnerships, and research projects contributes to the overall financial resources available for leadership-related activities and programs. The findings also in agreement with the findings of Onyene (2020) who posited that external funding sources, specifically targeted at leadership development, research, and academic enhancement, provide additional financial support to the institution.

The findings of the study revealed the prospects for improving educational leadership practices within the University of Nigeria which include: providing training programs to enhance leadership skills and knowledge; promoting teamwork and involving others in decision-making processes; ensuring fair and transparent selection processes for leadership positions; emphasizing the use of evidence-based practices to improve teaching and learning; and encouraging innovative and creative approaches to leadership and problem-solving. The findings are also in line with the findings of Okechukwu and Okeke (2021) who posited that the development programme initiatives can include workshops, seminars, mentoring programs, and professional networking opportunities, all aimed at cultivating leadership abilities and promoting continuous professional growth. The findings of the study is in agreement with the findings of Oluwatayo and Ogunbodede (2019) who posited that educational leaders within the University of Nigeria can create platforms for meaningful dialogue, engagement, and consultation, ensuring that decisions align with the institution's vision, values, and goals.

Conclusion

Conclusively, the study reveals the challenges faced by educational leaders in the university, including inadequate funding, bureaucratic processes, and political interference. These issues hinder the provision of quality education and impede effective decision-making. However, there are opportunities for improvement. Leadership development programs, collaborative decision-making, ethical practices, innovation, and strategic partnerships can enhance educational leadership. To realize these opportunities, stakeholders must collaborate, prioritize funding and streamlined processes, and invest in professional development. By addressing challenges and embracing prospects, the University of Nigeria can strengthen educational leadership, promote academic excellence, and contribute to holistic development in Nigerian higher institutions of learning.

Implications of the study for Educational Leadership in Nigerian Universities

The study has important implications for educational leadership in Nigerian universities as a whole. These implications include policy reform, leadership development programs, collaboration, ethical practices, innovation, and partnerships. Policy reform is needed to allocate adequate funding and resources, promote transparency and efficiency in financial management. Leadership development programs should be implemented to equip leaders with necessary skills. Collaboration and shared decision-making involving diverse stakeholders are vital. Ethical leadership practices should be promoted to uphold integrity and accountability. Cultivating a culture of innovation and research is crucial. Strengthening partnerships with industry, government, and community organizations can provide valuable support. By considering these implications, Nigerian universities can enhance educational leadership practices, improve the quality of education, and drive positive change.

Recommendations

Based on the findings of the study, the following keys recommendations were made:

1. Nigerian universities should prioritize the allocation of adequate funding and resources to support educational leadership practices.
2. Educational institutions should establish comprehensive leadership development programs that equip aspiring and current educational leaders with the necessary skills, knowledge, and competencies.
3. Universities should work towards simplifying bureaucratic processes that hinder effective educational leadership. This includes reducing administrative burdens, promoting efficient workflows, and implementing technology-driven solutions to streamline administrative tasks.
4. Nigerian universities should prioritize research and innovation by creating an environment that encourages and supports faculty and students in their pursuit of research activities. Universities should provide research grants, establish research centers, and foster collaboration with industries to drive innovation and contribute to knowledge creation.
5. Universities should actively seek and cultivate strategic partnerships with industry professionals, government agencies, and community organizations. Collaborative partnerships can provide resources, expertise, and support to address educational leadership challenges and enhance the overall quality of education.

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**COUNSELLING STRATEGIES FOR CONTROLLING FEMALE
STUDENT PRONE TO DROPOUT FROM SECONDARY SCHOOL IN
NSUKKA LOCAL GOVERNMENT AREA ENUGU STATE**

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Abstract

This study investigated counselling strategies for controlling female student that are prone to dropout from secondary school in Nsukka Local Government Area, of Enugu state. Based on the purpose of the study three research questions guided the study. The study adopted descriptive survey design. The population of the study comprised 6,295 SS1-SS3 public secondary school students. A sample size of one hundred and twenty (120) students was used for the study. The face validity of the instruments were done by three experts, two from educational foundations and one from measurement and evaluation. The reliability coefficient (r) of 0.87 and 0.93, 0.98, and 0.99, were obtained for SPLSQ and CSQ- individual counselling, group counseling, and cognitive restructuring strategies respectively. Data collected were analyzed using mean and standard deviation. The findings showed that individual counselling, group counselling, and cognitive restructuring strategies were accepted as effective for controlling female student who are prone to dropout. Based on the outcome, the researchers emphasize the need to address the individual needs of each female student using individual counselling strategy. Provide appropriate guidance and counselling services using group counselling and cognitive restructuring strategies, and encourage parental support for their daughters in order to reduce the rate of female student dropout.

Keywords: Counselling, strategies, controlling, female, student, Prone, Dropout, secondary school.

Introduction

Secondary school education is a link between elementary educations, tertiary education and higher education. It is evident that improved enrolment at the elementary stage which has led to increased access to secondary schools which in turn has influenced demands for tertiary and higher education. Secondary school education thus, is of special importance in the education ladder in as much as its successful completion is a requirement for admission into institutions of higher education and at the same time being a terminal stage. It caters to the needs of those who enter the world of works and broad goals of secondary education is to prepare the individual for useful living within the society; and higher education. According to Theodore (2010), secondary education is the successor to a slightly order system that is assigned to students at age 11 to 13 and ending usually at age 15 to 18 years. According to Osakwe and Osagie (2010), the importance of secondary school education in socio-economic transformation of any nation whether, developed, developing and underdeveloped cannot be underestimated. Secondary school education exist for the purpose of imparting knowledge and skills to students in order for them to serve socio-economic and political needs of ever changing society through active participation and involvement in all round activities. Hence, it is pertinent that a group of people bounded by a territorial boundary such as Nigeria should ensure that its educational goals are properly set and attained to make it abreast of educational developments among the committee of nations so that it will not be relegated to the background (Arowolo ., Arowolo, and Adaja, 2016). Specifically, secondary school education is aimed at raising a generation of people who can think for themselves, respect the views and feelings of others, respect the dignity of labour, appreciate those values specified under the broad national goals, and live as good citizens and providing technical knowledge and vocational skills, necessary for agricultural, industrial, commercial, and economical development Federal Republic of Nigeria, (2004). In the context of this study, secondary school education can be defined as that education for children which commence after primary education, and this can leads to either employment or higher education. It is also an institution

that reforms and package the beneficiaries with basic information that will make one a successful being to one's self and as well to the society.

The goal of secondary education as documented in the Federal Government of Nigeria (2004) is essentially to prepare and equip students to enter the world of work. During secondary education, students develop positive attitude cognitively, emotionally and behaviorally to face the challenges of life, Theodore (2010). Despite the obvious benefits of education to national development, research findings of Rumberger, (2010) indicate that female dropout rate from secondary school is increasing. There may be other reasons for female dropout in Nsukka Local Government and they are varied and may include securing an employment, poor grade, avoiding bullying, family emergency, depression and other mental illness, unexpected pregnancy and boredom from lack of lessons relevant to their desired occupations. Personal characteristic, home, finance and society were found by Ikechukwu (2000) as predisposing factors to school dropout among female students. Socio-economic status is one important universal trait determining a student's decision to drop out from school, impact both in developed and developing countries (United States Agency for International Development USAID, 2012). This is corroborated by Coleman (2009), which found that students from low-income or single-parent households are more likely to opt out of school than any other students. Other studies further suggest that children from families with single parents or stepmothers (which is also linked to lower socioeconomic status), are less likely to find the family encouragement and support they need to keep them in school (Edwards 2005; Rumberger, 2010). It can result in lower skilled work force and reduced human capital for a society that focuses on learning, knowledge, acquisition and education. The probability of prostitutionbehaviour can increase when female student dropout of school (Guleck and Guleck, 2008). This is because of the unrestricted mad rush for material wealth, rich husband and get rich quick syndrome. If the school dropout rate continues to be on the increase and unchecked, there is the likelihood that Nsukka Local GovernmentArea will face a serious problem in terms of lack of manpower, thereby resulting in low human capital strength for a society with emphasis on education and acquisition of education for national development. Social consequences associated with female dropout are related to illiteracy, unemployment, stealing, unwanted pregnancy and child abortion. Thus, these implications are directly linked with one another affecting the people, community, society, the family, school and the country as a whole. The study further understands that such actions by the female dropout student are as result of their low level of literacy which affects the ability to secure a good job thereby luring them into any form of a job for survival. Dropping out of school is never a solution to social issues but rather a problem to the person and also to social development in the community. This affects their skills in production and pursuit of a meaningful job. Since these students are illiterate, they found it very difficult to secure any good work that can sustain them comfortably rather they end up with pity jobs or without any. This also affects their behavior thereby pushing them to stress and frustration. As a result of unemployment leading to frustration, this group of students can lure themselves into any form of work or activities for survival such as criminal activities like prostitution and child abortion. Their act in the form of prostitution and child abortion has become a serious threat to people, the community, and society in general. There is a need for policymakers, students, parents, and teachers to understand the harmful consequences of female dropouts to save the country for the betterment of future generations.

A dropout is defined as any student, who for one reason or the other leaves school prematurely before graduation, without transferring to another school Kamla-Raj (2007). This is most common in rural areas where there is abject poverty, ignorance and children form a recognizable part of the family labour force. De Cos (2005) also stated that dropout is the ultimate withdrawal from school as student who withdraw from senior secondary school prematurely end up not obtaining any certificate of graduation. The term "dropout" qualifies those students who could not complete their education programme at any level of education due to one reason or the other, as posited by Lee and Burkam (2003). In the context of this study, dropout will be defined as any student who leaves school for any reason before graduation or completion of a program of studies without transferring to another elementary or secondary school.

In Nsukka Local Government Area, it is sad to note that it is not every child who starts schooling at primary, secondary or tertiary level that completes his or her education. In Nsukka the dropout rate among secondary school students is estimated to 27.8% Anyanwu, (2005). It is estimated that 7.3 million students annually dropout of school in Nigeria (UNICEF, 2004). It is no more an assumption that many female students no longer have interest in education because of parents socio-economic status, early marriage, attitude of teachers to female students, domestic work, culture of the people, and parents literacy level,(Erulkar&matheka, 2007), and the resultant of it has led to high rate of dropout. This is regrettable as many female students in Nsukka local government area have been

observed dropping out of school only to be often seen in the market doing sales girls, hawking, hookup and living in a man's house without their bride prize been paid.

In spite of the efforts of successful governments of Nigeria to provide free education by introducing Universal Primary Education (UPE) in 1976, Universal Basic Education (UBE) in 1999 and State Universal Basic Education (SUBE) in 2000, students are still dropping out of school for various reasons which may be psychological, emotional and intellectual, academic failure problems (Bolu-Steve and Adeboye, 2015). However to reduce dropout tendency among female students and other behaviour problems, counselling strategies may becomes the way out. This is because counselling strategies have seen to solved many maladaptive behavior of students.

Counselling Is a personal relationship between a counsellor and a counsellee with the aim of assisting the client in self understanding, decision making and problem solving, Durosaro, (2016). He went further to state that counselling is oriented towards facilitating effective learning skills, acceptable habits and appropriate behavior.

It is also oriented towards facilitating effective learning skills, acceptable habits and appropriate behaviors in the individual. Anagbogu (2010), referred to counselling as the process of helping an individual to understand himself and his world. Therefore, counselling does not just deal with problems, problematic situations, and troubled individual but rather, it sharpens the individual understanding of self and his environment. Counselling is crucial in minimizing behavioural problems and proper counselling requires counselling strategies to tackle the problem. Alutu and Aluede (2013), referred to counselling strategies as the theories, techniques and skills needed by a counsellor to achieve a certain goal and objectives. To go through the process of assisting clients to modify their behaviors. In the context of this study, counselling can be defined as the professional services offered by a counselor to help the counsellee to adjust in his or her environment effectively by manifesting desirable behavior patterns.

The importance of counselling strategies in secondary school education cannot be over-emphasized, Shertzer& Stone, in Nwoye (2009) Outlined the following as the importance of counselling strategies to students: to assist all students in making appropriate and satisfying personal, social, educational and vocational choices, work and learning in view to help the students to help themselves. Counselling strategy is a dynamic skill, problem focused and effective approach, a high level plan of action intended to accomplish a specific goal. Counselling strategy facilitate the development of counselling skills that can be used to encourage and assist clients develop the concepts and processes required for achieving counselling objectives. There are various counselling strategies a counsellor can apply as cited by Okere (2015), behavioural counselling strategies as follows; modeling, systematic-desensitization, feedback, paradoxical intention, punishment, proximity control, time-out, cognitive restructuring, assertive training, shaping, and ignoring strategy. Onah (2002) noted that changes in an individual's environment can bring about changes in the individual's behavior and an individual can solve most of his problems if he is taught the procedures therein. In this study, the counselling strategies used includes; individual counselling strategy, group counselling strategy, cognitive restructuringstrategy.

Individual counselling is a personal opportunity to receive support and experience growth during challenging times in life. Individual counselling can help one deal with many personal topics in life such as anger, depression, anxiety, substance abuse, marriage and relationship challenges, parenting problems, school difficulties, career changes.(Foluke, 2011). Individual counselling is a joint, intimate and confidential relationship between the individual and the counsellor which should give the counsellee the opportunity, freedom to express and explore himself and the issues confronting him, (Onah, 2002). To achieve deeper understanding of self and his problems and choose a path towards the resolution of his problems. Ojo (2009), ascribed it as mainly to bring about change in the client either by altering the maladaptive behavior as well learning the decision making process. In the context of this study, Individual counseling is defined as a one to one, face to face relationship marked by intimacy, warmth and rapport between the counsellor and counsellee, seeks to assist the counsellee in assuming the responsibilities for his or her problem and its solution.

However, group counselling strategy can also be used by counsellors to control antisocial behavior. Onah, (2002) posited that in professional counselling circles, group counselling refer to a situation where one counsellor renders counselling services to a group or number of clients with a similar case at a time. In group counselling the number ranges from four to twelve (4 - 12). Onah went further to state that the main tenet of group counselling is stamping out of bad habits, influencing attitudes, and treating other personal problem of the member. The goals of group counselling are to facilitate the development of mature tendencies and as well to attain an awareness of self so that the students can be responsible for themselves (Byrne, 2011).

In addition, cognitive restructuring is also a counselling strategy the counsellor uses, the counsellor use this approach to assist students to have a new way of perceiving events. (Okere 2015). Altering the irrational taught of the students based on the high level of unemployment rate facing our country, the counsellor assures and enable them to understand the fact that there is still need for education by every individual in the country. (Oyinloye, 2015). Operationally cognitive is a counselling strategy use by the counsellor to restructure client irrational thinking to rational thinking. Researchers across the world have carried out findings on the above counselling strategies and have found to be effective in reducing maladaptive behavior among secondary school students. In the context of this study, counselling strategies are activities performed during counselling relationships to achieve the methods of counselling applied in pursuance of set counselling goals. Therefore, this study sees the effectiveness of counselling strategies as a remedy to secondary school dropout

Statement of the Problem

Despite the strategic position and role of secondary education in the educational system and the educational career of a child, its acquisition is being hindered in Nigeria. School dropout issue is a major social and economic problem that poses complex subject for policy makers, educators, parents, counsellors, students and others. Female students who leave school without completion are at a disadvantage on the labour market in today's knowledge-based society. Secondary education is not only an acceptable qualification for good jobs but also serves as a milestone or a gateway to sound higher education. Secondary school dropout is increasing immensely in Nsukka; this has caused the communities lack of productive workers and as well higher costs associated with health care and other social services.

The effect of dropout is very rapid in the rural areas where the female students prefer sales girls work and early marriage to schooling. Majority of the female students involve themselves in prostitution as a means of getting money for their up keep and some of this female students indulge in cyber-crime including bet Naija to the pitfall of their academic endeavors.

If the school dropout continues to increase on the high rate and remained unchecked, it will lead to Nsukka communities to be overcrowded with youth who will become miscreant, vagabond and social deviant to the community and to the society at large. It is on this backdrop that the researchers focused to investigate various counselling strategies that will help as an antidote to ameliorate female student dropout in Nsukka Local Government Area.

Purpose of the Study

The general purpose of this study is to investigate the counselling strategies for controlling male student dropout from secondary schools in Nsukka Local Government Area of Enugu State. Specifically, the study intends to:

1. To find out the extent individual counselling strategy can control female student prone to dropout in secondary school.
2. Find out the extent group counselling strategy can control female student prone to dropout in secondary school.
3. Determine the extent cognitive restructuring strategy can control female student prone to dropout in secondary school.

Research Questions

The following research questions posed will guide the study.

1. To what extent does individual counselling strategy control female student proneness to dropout in secondary school?
2. To what extent does group counselling strategy control female student proneness to dropout in secondary school?
3. To what extent does cognitive restructuring strategy control female student proneness to dropout in secondary school?

Sampling Technique

The population of the study comprised of 6,295 SS1 –SS3 students from public secondary school in Nsukka Local Government Area of Enugu state. A sample of (120) students of public secondary schools in Nsukka Local Government Area who were identified as those prone to leave school was used for the study. Using purposive sampling, 10 secondary school was drawn out of 31 secondary schools in Nsukka Local government area. Using proportionate random sampling, 12

female students were drawn from each of the 10 secondary schools in the study area, making a total of 120 female students.

Instrument for data collection

The instruments for data collection were Students Proneness to Leave School Questionnaire (SPLSQ) and Counselling Strategies Questionnaire (CSQ) which were validated by three experts. The SPLSQ has 10 items that depicts that a student has the tendency to leave schooling and the CSQ has 23 items with three clusters measuring individual counseling, group counseling and cognitive counseling respectively. The aim of the SPLSQ was only to identify those female students that are prone to dropout of school and use them for the study. The instruments were subjected to pilot study at Igbo-Eze south local government area of Enugu state and the reliability coefficient was calculated using cronbach's alpha and was found to be 0.87, and 0.93, 0.98, 0.99 respectively for SPLSQ and CSQ. Mean and standard deviation were used to analyze the research questions with four point scales of very high extent (VHE) 3.50-4.00, high extent (HE) 2.50-3.49, low extent (LE) 1.50-2.49, very low extent (VLE) 0.50-1.49. Thus any mean that is below 2.50 will be considered negative.

Results

Research Question 1: To what Extent does individual counselling strategy can control female student proneness to dropout from secondary school

Table 1: mean and standard deviation analysis on individual counselling strategy for controlling female student proneness to dropout from secondary school.

S/N	Item Statement	N	\bar{X}	SD	REMARK
1.	Individual counselling helps female students to realize their goals and how to progress towards its achievement.	120	3.37	0.73	Accepted
2.	Individual counselling helps to boost female students confidence about their ability.	120	3.18	0.65	Accepted
3.	Individual counselling helps female student to change self defeating habits.	120	3.13	0.66	Accepted
4.	Individual counselling helps to improve female students interpersonal skills.	120	3.07	0.84	Accepted
5.	Female students are likely to have a better understanding of one's self and emotion during one on one counselling.	120	3.04	0.78	Accepted
6.	Female students are more likely to open up to counsellors on their academic learning difficulties during one on one counselling.	120	2.92	0.82	Accepted
7.	Female students do understand the exact challenges they faced in school when they engage in individual counselling with a counsellor	120	3.01	0.89	Accepted
8.	One on one counselling promotes decision making skills in female students	120	3.07	0.75	Accepted
Grand mean		120	3.10	0.77	Accepted

The analysis of data in table 1 shows the mean responses on the extent individual counselling strategy can be use to ameliorate female student dropout from secondary school. The grand mean of 3.10 shows the various counselling strategies counsellors can deploy to control school dropout. Results shows that items 1-8 have mean score which were above 2.50 criterion of acceptance. And the above result indicate that individual counselling strategy is an effective strategy that can be use by counsellors and other significant orders to control female student dropout from secondary school in Nsukka local Government Area of Enugu State.

Research Question 2: To what Extent does group counselling strategy can control female student proneness to dropout from secondary school

Table 2: mean and standard deviation analysis on group counselling strategy for controlling female students proneness to dropout from secondary school.

S/N	Item Statement	N	— X	SD	REMARK
9.	Counsellors can easily address issues in the group that meet the needs of the female students.	120	2.98	0.77	Accepted
10.	Group counselling brings female students out of their isolated world through group interaction.	120	2.77	0.72	Accepted
11.	Group counselling can be used by the counsellor to promote the importance of counselling among female students.	120	3.49	0.72	Accepted
12.	Group counselling enables female students to discover that their fellow students have a similar problem and needs.	120	3.48	0.62	Accepted
13.	Group counselling protects female students from the stigma of being labeled as people with abnormal behavior.	120	3.33	0.54	Accepted
14.	Group counselling serves as a means of influencing female student attitudes and also to stamp out bad habits.	120	3.05	0.72	Accepted
15.	A female student involved in group counselling develops effective study skills and ability to cope with family issues.	120	3.14	0.76	Accepted
Grand Mean		120	3.18	0.69	Accepted

The analysis of data in table 2 shows the mean responses on the extent group counselling strategy can be use to ameliorate female student dropout from secondary school. The grand mean of 3.18 shows the various counselling strategies counsellors can deploy to control school dropout. Results shows that items 9-15 have mean score which were above 2.50 criterion of acceptance. And the above result indicate that group counselling strategy is an effective strategy that can be use by counsellors and other significant orders to control female student dropout from secondary school in Nsukka local Government Area of Enugu State.

Research Question 3: Extent cognitive restructuring strategy can control female student proneness to dropout from secondary school

Table 3. Mean and standard deviation analysis on group counselling strategy for controlling female student proneness to dropout from secondary school.

S/N	Item Statement	N	— X	SD	REMARK
16	Cognitive restructuring can be used to expand female students discovering abilities.	120	3.27	0.67	Accepted
17.	Cognitive restructuring has an enduring effect on female students by improving their current state of mind.	120	3.10	0.83	Accepted
18.	Cognitive restructuring helps female students to understand their current ways of thinking and behaving.	120	3.16	0.74	Accepted
19.	Cognitive restructuring is used to dispute the irrational thought among female students.	120	2.86	0.81	Accepted
20.	Cognitive restructuring used by the counsellor helps female students to gather evidence against the use of safety behaviour.	120	3.61	0.60	Accepted
21.	Cognitive restructuring are used by counsellors to expand female students efforts beyond the confines of the counselling.	120	3.53	0.72	Accepted
22.	Cognitive restructuring can be used by counsellors to understand female students mental distress and change their irrational thought system to rational.	120	3.35	0.66	Accepted
23	Cognitive restructuring can used to equipped female students with the tools to change their maladaptive behaviour pattern.	120	3.41	0.61	Accepted
Grand Mean		120	3.29	0.71	Accepted

The analysis of data in table 3 shows the mean responses on the extent cognitive restructuring strategy can be use to ameliorate female student dropout from secondary school. The grand mean of 3.29 shows the various counselling strategies counsellors can deploy to control school dropout. Results shows that items 16-23 have mean score which were above 2.50 criterion of acceptance. And the above result indicate that cognitive restructuring strategy is also effective strategy that can be use by

counsellors and other significant orders to control female student dropout from secondary school in Nsukka local Government Area of Enugu State.

Discussion

The findings of this study proved that individual counselling was effective in handling female student dropout as evident in table 1. Oyinloye (2015) observed that individual counselling reduces the number of dropout in our schools as it gives them the opportunity to talk one on one with counsellors. This implies that individual counselling strategy would be unquantifiable measure for reducing the spate of school dropout.

Table 2 showed that the effectiveness of group counselling strategy as a means that bring female students out of their isolated world and help each member of the group know and understand their selves, to develop self-acceptance and feelings of personal worth and also develop effective study skills and ability to cope with family issues. This is in agreement with Kayler and Sherman (2009) recommended that a small group counselling intervention strengthened studying behaviors as measured by pretest posttest design.

The study also revealed that cognitive restructuring is a therapeutic strategy which refutes irrational ideas and replaces them with rational ones among female students. This finding is in agreement with previous finding of Ukwueze (2010), who concedes that cognitive restricting is a useful strategy for understanding people's unhappy feelings and moods, bad moods are unpleasant and can be replace with positive frame of mind.

Conclusion

The research emanated from the need to seek solution to the existing dropout rate among secondary school female student. To this effect, the study ascertained the counselling strategies for controlling female student proneness to dropout from secondary schools in Nsukka local government area, and the findings revealed that individual counselling and group counselling strategies was effective in handling female student dropout. The study also revealed that cognitive restructuring is a therapeutic strategy which refutes irrational ideas and replaces them with rational ideas. However based on the findings, the study concludes that female student dropout pose serious challenge on educational delivery in secondary school, that the effect of female student dropout from secondary schools has cause the communities to lack productive workers and as well as higher cost associated with health care and other social services. The findings also concluded that strategies identify on the study are some of the ways for ensuring the reduction of female student dropout from secondary school in Nsukka local government area

Recommendation

1. School counsellors are charged to identify potential dropouts, and work closely with female students using individual counselling strategy to help female student stay in school or find alternative means of completing their education.
2. Counsellors should organize workshops and teachings for female students on the effect of school dropout using group counselling strategy.
3. Cognitive restructuring is another effective strategy that should be use by counsellor to change the irrational thought of female student that is prone to drop out to rational thought.
4. Implementation of service learning opportunities is another strategy to reduce the dropout rate among female students. Service learning is a teaching and learning method connecting meaningful community service experiences with academic learning, personal growth, and civic responsibility National Dropout Prevention Center (2011).
5. School counsellors can collaborate with communities in order to best serve female students. Hobbs and Collison (2015) suggested counsellors must be open to the contributions of those who work outside the school.

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**EFFECT OF AUDIO-VISUAL ON STUDENTS' ACHIEVEMENT IN
ORAL ENGLISH IN SENIOR SECONDARY SCHOOLS IN
OBOLLO EDUCATION ZONE OF ENUGU STATE, NIGERIA**

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Abstract

The need to identify effective measures to minimize continuous poor performance of students in oral English led to this study which is focused on the effects of audio-visual teaching aid on urban and rural Senior secondary school students' achievement in Oral English in Obollo Education zone of Enugu state. The study employed a quasi-experimental research design. The population of this study consists of 2500, SS II students in 2022/2022 academic session drawn from public senior secondary schools in Obollo Education zone of Enugu state Area. The sample size consists 80 senior secondary school 2 students offering English language, using a multi-stage sampling technique to draw the intact classes. This was divided into urban and rural schools based on stratification done by Post Primary School Management Board (P.P.S.M.B). One school was drawn from each location using simple random sampling techniques. In each location, one school will be assigned to the experimental and the other to the control. Data was collected using 20-Item Structured Students' Audio-Visual Achievement Test (AVAT) developed by the researcher. The instrument was validated by three experts. Its reliability coefficient of 0.78, was determined using Kuder Richardson formular 20. The AVAT was used for both pre-test and post-test. Mean and standard deviation were used to answer the research questions while analysis of covariance (ANCOVA) was used to test the hypotheses at 0.05 level of significance. The results of the study indicate that since audio-visual materials productive, teachers should try to make effective use of audio-visual materials to improve the achievements of students in urban and rural schools. The major educational implication of the findings is that oral English students will do better if taught with audio-visual aids in schools.

Keywords: Audio-visual, Location, Achievement, Oral English.

Introduction

Background of the Study

Languages are the primary means of communication of humans and can be conveyed through speech, sign or gesture. For language to be understood and be impacted to learners there is need for language learning. Aristotle (2020) sees language as a speech sound produced by human beings to express their ideas, emotions, thoughts, desires and feelings. According to Egbe & Asadu (2017) Language is a structured system of communication. The structure of a language is its grammar and the free components are its vocabulary. Expressions include sounds and phonemes used by humans for generating speech and writing, respectively for communication. Though animals are physically fit to use voice in communicating a broad range of simple messages to others of their species, only man is able to produce true or real speech as opposed to the speech in speech mimicry of such birds as parrots. In deed speech is similar to language. Lawtie (2016) support that, speaking is fundamental to human communication. If the goal of a Language course is to groom students on how to communicate in English, the speaking skills should be taught and rehearsed regularly in the mastery of the language. Obanya (2011) affirms that Audio-visual aids are accomplished with language, Oral English on the other side is the spoken language.

Oral English can be described as spoken English, because it is spoken rather than written. This can be attributed to the fact that there are four basic language skills namely: listening, reading, writing and speaking. It is obvious that speaking skill belongs to Spoken or Oral English. According to Lawtic

(2016) phonological skills, pragmatics, syntax, morphological skills, and vocabulary (also referred to as semantics). All of these components of oral language are necessary to communicate and learn through conversation and spoken interaction.

According to Hifferty (2014) Oral English entails the process of sound production in English Language. This implies that Oral English is the aspect of English Language that is spoken using speech organs such as teeth, lips, tongue, and so on. Oral English accounts for how speech sounds are produced starting from lungs to the mouth. It is obvious that the power house of speech production is the lung. The airstream flows from the lung and it is modified by other speech organs for a meaningful speech sound. The Social Learning Theory by Bandura (2009) presumes that the social environment constitutes the overall learning situation and the deciding factor in the stability of any learning. The theory reveals that most human behavior is learned observationally through modeling as a means of providing information. Obanya (2011) notes that the most influential organ for speech production is the tongue. Tongue is generally believed as the most active articulator of speech sound. This is because tongue possesses the greatest range of movement among other speech organ. McGregor (2011) believed that lips are the most observable organs in speech articulation which comprise of upper and lower lips. The upper and lower lips come together for the production of bilabial sounds like: /p/, /b/ /m/ and labio-dental fricative sounds like /f/ and /v/ are produced when the lower lip goes in contact with the upper teeth. Teeth also help in the production of dental fricative like /θ/ and /ð/. There are sounds that are articulated with the help of nose. These sounds are called nasal sounds like /m/ and /n/. This means that if one closes one's nose, the production of these sounds is not possible. Encartar (2018) maintained that Oral English is the natural way a child can learn to understand and use a language. So, the teaching and learning of Oral English is geared towards the use of the vocal sounds in order to communicate. Oral English is broadly divided into two. They are the segmental features comprising vowels & consonants and supra segmental features comprising syllable, stress, rhythm and intonation.

Vowel sound production takes as the airstreams flow from the lungs to the mouth without any obstruction. According to Lawtic (2016) Vowels are classified into two main groups. They are pure vowels and diphthongs:

Pure vowels: Pure vowels are twelve and they are classified into two the short and long vowels.

The short vowels are seven and they are /i/, /a/, /e/, /ɪ/, /u/ /ʌ/ and /ə/

The long vowels are five and they are: /i:/, /a:/, /u:/, /ɜ:/, /ɔ:/.

For the fact that vowel sound can be voiced, the voiced vowel sound can be audio taped or video tape and can be used in instruction, Original speakers of English Language can audio taped or video tape themselves while producing the vowel sound and makes it accessible to us that learns English language as our Second Language for effective teaching and learning of the sound. With the help of the audio visual materials teaching of vowel sound may now be easy and simple, since the students watch the original speakers of English pronounce the sounds. Consonants sound can also be audiotaped or videotaped.

A consonant is a speech sound that refers to letters of the alphabet that represent those sounds: /Z/, /B/, /T/, /G/, and /H/ are all consonants. Lawtic (2016) define consonants as a speech sound produced by a partial or complete obstruction of the air stream by any of various constrictions of the speech organs, such as (p), (f), (r) and (h). The consonant sound segments are 24 they are /p/, /b/, /t/, /d/, /k/, /g/, /f/, /v/, /θ/, /s/, /z/, /ʒ/, /h/, /ts/, /l/, /r/, /w/, /j/, /m/, /ŋ/, /n/, /ɔ/, The sounds are produced when the airstreams from the lungs is obstructed. For example: the lips obstruct the airstreams when one wants to produce the consonant sound /p/. In classification of consonants, three factors guide the exercise. The factors are: 'place of articulation', 'manner of articulation' and 'the state of glottises.

English is the lingua franca in Nigeria and also serves as an international language. The problems of teaching and learning a second language stems from powerful influence of mother tongue. According to McGregor (2011), there are three areas which the teacher should pay adequate attention in developing speaking skills. They are Stress, Intonation and Articulation.

McGregor (2011) points out that if learners are helped to improve the stress and intonation of their speech, they would have gone a long way in achieving that complete intelligibility. Getting the intonation right is an essential ingredient in speech and should be a focus of drills by the language teacher for developing speaking skills and for this to be achieved one have to have a coherent verbal form known as articulation.

Articulation is an aspect of pronunciation involving the articulator organs. (The joints themselves can also be called articulations.) It is the act of expressing something in a coherent verbal form. Hilferty (2008) suggests the use of audio-visual materials such as video tapes, DVDs, audio tapes, audio CDs, and microforms to aid the teacher in teaching these segmental features in Oral English, although it can be difficult to identify and access. Unlike books and journals, which are covered by regular bibliographic tools, audiovisual materials are not systematically covered. Stressing the importance of audio-visual materials, Eze & Omeje, (2018) are of the opinion that audio-visual materials are very important and useful in education because, the normal learner in so far as the functions of his preceptor mechanisms are concerned, gains understanding in terms of multiple impression recorded through the eye, ear, touch and other series. According to Eze & Omeje, human beings learn more easily and faster by audio-visual processes than by verbal explanations alone.

Owing to lack of Oral English instructional materials in Obollo Education Zone, the teachers resort to the lecture method. The lecture method is a teaching condition where the teacher teaches the students without recourse to instructional materials. The inherent weaknesses are: the teacher talks more without corresponding comprehension amongst students; the class is not lively as the method entails less interaction. The lack of interaction gives rise to inadequate internalization and poor performance in Oral English and hence a search for alternative measure becomes imperative.

The researchers therefore, decided to study the effect of audio-visual aids in senior secondary school students' Achievement in Oral English.

Statement of the Problem

It is observed that in various Senior Secondary School in Obollo Education Zone, students encounter difficulties in speaking like the native speakers of English language. Youths use slangs, vernacular and other kinds of informal expressions in English. The use of pidgin English in vigor among our secondary school students, this affects their performance especially in oral English language examination as many of them cannot differentiate between pidgin English and formal English.

Virtually most schools including public school in Obollo Education zone of Enugu state Area fall short of standard to be followed in the effective teaching of Oral English due to non-application of appropriate instructional aids. A good number of students ignore the Oral English aspect in school and the consequent effect is poor performance. Could the poor performance be linked to the method used in teaching Oral English? There is the need, therefore, to examine the effect of audio-visual instruction on the achievement of senior Secondary Students in Oral English in Obollo Education zone of Enugu state Area of Enugu State.

Purpose of the Study

The purpose of this study is to examine the effect of the use of audio-visual aids on Senior Secondary School Students' Achievement in Oral English in Obollo Education zone of Enugu state Area. Specifically, the study intends to find out:

- i. Effect of audio-visual materials on students' achievement in oral English.
- ii. Effect of audio-visual materials on achievement of students in urban and rural schools in Oral English. .

Research Questions

The following research questions guide the study:

- i. What is the effect of the mean achievement score of the students thought Oral English using audio visual materials and those thought Oral English using lecture method ?
- ii. What is the effect of the mean achievement scores of student's in the urban and rural schools thought Oral English using Audio-visual materials?

Hypotheses

The following hypotheses are formulated to guide the study. They were tested at 0.05 level of significance.

- i. There is no significance difference in mean achievement scores of students thought Oral English using audio visual material and those taught Oral English using the lecture method.
- ii. There is no significance difference in mean achievement scores of student's in the urban and rural schools taught Oral English using the audio-visual materials.

Methodology

The design for the study is quasi-experimental. Specifically, the study applied non – equivalent control group design. Eze (2022) define quasi experimental as a type that is not a free experiments. In this case, intact or pre-existing groups are used. A quasi-experimental design is considered appropriate for the study because intact classes were used to avoid disruption of normal class lesson. The pre-test was used to partial out initial differences and also to control selection bias which is a threat to internal validity.

The study was comprised out in Obollo Education zone. The zones consist of three local government areas: Namely Udenu, Igbo-Eze North and Igbo-Eze South. The choice of this area is based on the fact that researchers observed inability of a good number of students in the area to effectively pronounce English words. Secondly, the researchers are familiar with the locations of all the schools within the area, which gave the researchers the opportunity to monitor and supervise the experiment properly.

The population of this study comprised all SS II English Language students in the public Senior secondary schools in Obollo Education of Enugu state. The population of the study is two thousand, five hundred (2500) students, which was made available to the researchers by Post Primary School Management Board (P.P.S.M.B) (2022/2023), Obollo Education Zone. Multi-stage sampling technique was used to draw 80 students from two intact classes of SS II students in both urban and rural schools in the zone. Students of SS II class were chosen because they are not in exam class, and there is a need to assess their level of knowledge of oral English and the factors which may affect their performance in Oral English in their Senior Secondary Certificate (SSCE) Examination. In each location, one school was assigned to the experimental and the other to the control.

The instrument for data collection was Audio–Visual Achievement Test (AVAT). The AVAT consists of 20 items of multiple-choice tests based on four options A, B, C and D. The items test the students' pronunciation on pure vowels. The instrument was validated by three experts, one from Measurement and Evaluation Unit and two from Department of Arts Education, all from Faculty of Education, University of Nigeria Nsukka. A reliability index of 0.78 was established using Kuder Richardson formula 20 (KR-20) reliable coefficient.

The scores obtained from the Pre and Post-tests were analyzed using Mean, Standard deviation and ANCOVA statistics. Mean and Standard deviation were used to answer the research questions, while Analysis of Co-variance (ANCOVA) was used to test the hypothesis at $p < 0.05$ level of significance.

Results

The results for the data analysis were based on the two research questions and two null hypotheses that guided the study as follows:

Research question 1:

What is the difference in the mean achievement scores of students taught Oral English using audio-visual materials and those taught Oral English using lecture method?

Table 1: Pretest and Post-test Scores of Experimental and Control Groups in Oral English.

Group	n	Pretest	SD	Post-test	SD	Gain
Experimental	38	13.63	7.08	37.06	12.95	22.43
Control	40	11.22	7.09	33.53	14.58	22.31

Result in Table 1 indicates the pre-test mean achievement scores for experimental groups of 13.63 and a post-test mean score of 37.06 with a standard deviation of 7.08. However, the pretest means score of the control group was 11.22 and post-test of 33.53 with standard deviation of 14.58. Also, the experimental group had a mean gain score of 22.43 as against the mean gain score of 22.31 recorded by the control group. The higher achievement gain score result of the experimental group indicated that Audio-visual Aid has effect on students' achievement in Oral English.

Hypotheses 1

There is no significant difference in the mean achievement scores of SS2 students in oral English when exposed to Audio visual instructional and lecture method.

Table 2: Analysis of covariance (ANCOVA) of Post Achievement Scores in Oral English by treatment

Source	Type III sum of squares	Df	Mean square	F	Sig. of f	Decision
Corrected model	369.207 ^a	2	184.603	.964	.383	
Intercept	46724.360	1	46724.360	244.082	.000	
Pretest	46.627	1	46.627	.244	.622	
Group/Method	295.364	1	295.364	1.543	.216	NS
Corrected/Model	233.969 ^a	2	116.984	.692	.503	
Intercept	26381.864	1	26381.864	156.140	.000	
Pretest	49.009	1	49.009	.290	.591	
Location	198.236	1	198.236	1.173	.281	NS
Corrected/Model	233.969 ^a	2	116.984	.692	.503	
Intercept	26381.864	1	26381.864	154.140	.000	
Pretest	49.009	1	49.009	.290	.591	
Error	16389.391	97	168.963			
Total	161632.880					
Corrected Total						

Table 2 indicates that method of treatment as a main factor has no significant effect on students' achievement in Oral English. Therefore, the null hypothesis that there is no significant difference between the mean achievement scores of students taught Oral English using audio-visual materials and those taught Oral English using lecture method is confirmed.

Research Question 2

What is the difference in the mean achievement score of students in urban and rural schools taught Oral English using audio-visual materials?

Table 3: Pretest and Post-test Mean Score of Urban and Rural Students in Oral English.

Group	n	Pretest	SD	Post-test	SD	Gain
Urban	42	14.64	7.08	38.08	12.96	23.44
Rural	37	13.22	7.06	35.54	14.62	21.32

Results in Table 11, shows that the students in urban schools had a mean score of 14.64 in the pretest and 38.08 in the post-test with standard deviation of 7.08 and gain score of 22.43. Moreover, students in the rural school had a mean score of 13.22 in the pretest and post test score of 35.54 with a gain score of 21.32. Information in the table indicates that students in urban schools performed better than the students in rural schools in Oral English.

Hypotheses 11

There is no significant difference in the mean achievement scores of students in the urban and rural schools taught Oral English using audio-visual materials.

Results presented in Table 2 reveal that there is no significant difference between the mean achievement scores of students in urban and rural schools in Oral English. This is because the F- value of 1.173 in respect of location as a factor is shown to be significant at .281 level and therefore, not significant at 0.05 level. Therefore, the null hypothesis that there is no significant difference in the mean achievement scores of students in urban and rural schools taught Oral English using audio-visual materials is accepted.

Discussion of the Findings

The findings of this study shown that audio-visual aid had relative effect on students' achievement in oral English more than the control group . This indicates that location has nothing to do with students' performance, and that there is no significance difference on the effect of use of Audio- visual aid on students' achievement in favor of experimental group. The superiority of the experimental group over the control group is due to the guidance and assistance provided by Audio-visual aids which enabled the students gain competence and motivation when guided through Audio visual materials. The findings also in agreement with Bloomfield, (2019. who states that teachers should be able to help students acquire these skills and competences when their interest is low. Students should therefore, liase with their parents and guardians with a view of acquiring their video records. The findings of the study support the earlier submission of Forez (2010) which reveals that students who listen to visual recordings or audio- visual materials and try to imitate in the hope of speaking like the native speakers of English are bound to perform better in their speaking skills.

The study further revealed the achievement gain scores for urban and rural students experimental group exposed to Audio visual aid during oral English lesson. Therefore, the null

hypothesis that there is no significant difference in the mean achievement scores of students in urban and rural schools taught Oral English using audio-visual materials is accepted. The findings is in line with the findings with Eze (2016) who states that human being learn more easily and faster by audio-visual processes than by verbal explanations alone. However, this finding to a large extent supports Abiri (2008) which showed that using instructional materials to teach speaking skills improves performance of students. The implication of the study to teachers is that since audio-visual materials as a method are productive, effective use of audio-visual materials should be the watchword of teachers.

Conclusions

Based on the result of this study, the researchers drew the following conclusions: Both the audio-visual materials and the lecture methods are good methods since there is no significant difference on the performances of the two groups of students that the methods were applied on. Location has no differential effect on the performances of students in Oral English.

Recommendations

Based on the findings of this study, the following recommendations were made:

- i. Curriculum developers should advocate effective use of audio-visual materials in teaching oral English in schools.
- ii. The Government should organize seminars and refresher courses for Oral English teachers as teaching the teachers will enhance their Oral English skills.
- iii. School authorities should ensure that teachers should appropriate the audio-visual materials by supervising Oral English class regularly.
- iv. The Government should and teachers encourage speech training by building language laboratories in schools where the audio-visual materials should be maximally utilized.

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**BASIC SCIENCE TEACHERS' COMPETENCE GAP IN THE
IMPLEMENTATION OF BASIC SCIENCE CURRICULUM IN
EBONYI STATE, NIGERIA**

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Abstract

The study examined the basic science teachers' competency gaps in the implementation of the basic science curriculum in Ebonyi State. Three research questions guided the study, which utilized a descriptive survey research design. The study population comprised 306 (142 male and 164 female) basic science teachers in all the 228 public junior secondary schools in the state, out of which a sample of 168 (76 male and 88 female) teachers were drawn for the study. Data were collected using the Basic Science Teachers' Competency Need and Possessed Questionnaire (BSTCN&(PQ) developed by the researchers. Overall reliability coefficients of 0.87 and 0.85 were obtained for sections B1 and B2 of the BSTCN&PQ respectively. The data gathered were analyzed using the mean and standard deviation. The study revealed, among others, that there are large competency gaps in basic science teachers' content knowledge, pedagogical and classroom management competencies, as well as resourcefulness and assessment/evaluation skills. It was therefore recommended, among others, that the government, through the federal and state ministries of education, should organize workshops for the training of in-service teachers of basic science on the various competencies required for effective implementation of the basic science curriculum.

Keywords: Basic Science, Competency gaps, implementation, Basic Science Curriculum

Introduction

Science is undeniably the backbone of technological and industrial developments. It is considered a systematic investigation aimed at discovering new knowledge and how to use such knowledge innovatively in solving individual and societal problems. Omoifo (2019) therefore asserted that the knowledge of science is no doubt very essential to human existence, as modern life requires general scientific literacy for every individual and society alike. Similarly, Ogunleye and Sowunm (2020) noted that advances in science and technology have indeed revolutionized human lives and ways of living. This may have resulted in the clamor for the need to promote the teaching and learning of science globally, of which Nigeria is no exception. The Federal Republic of Nigeria (FRN, 2013) recognizes the importance of the knowledge of science through the inclusion of basic science at the basic education level and various science subjects at the senior secondary school level, as well as science-based courses at the tertiary level of education.

Basic science, earlier known as integrated science, is a subject taught at the primary and junior secondary school levels to provide opportunities for the foundational exposure of learners to scientific knowledge and skills. The subject provides necessary preparatory knowledge for the study of the sciences (Odili, Ebisine, & Ajuar, 2011). According to the Federal Republic of Nigeria (FRN, 2013), basic science is an integrated subject (comprising biology, chemistry, and physics) presented to learners in such a way that they gain the fundamental unity of science and an understanding of the role and function of science in everyday life. This implies that basic science is an introductory subject that expose students to the rudiments of science that will enhance their future success in science subjects such as biology, chemistry, and physics. The desire of Nigeria to be identified with contemporary development worldwide again called for the infusion of relevant contents in the areas of Environmental Education (EE), Drug Abuse Education (DAE), Population and Family Life Education (PFLE), and Sexually Transmitted Infections (STI), including HIV/AIDS, into the basic science curriculum (Ogunleye & Sowunm, 2020).

The basic science curriculum for Nigerian basic education is structured in such a way that, at the lower basic level (primary 1 to 6), the subject is taught as Basic Science and Technology, while at the upper basic level (JSS1 to 3), it is taught as Basic Science (FRN, 2013). The curriculum is organized in such a way that there is a systematic link between basic science and technology at the lower level and basic science at the upper basic education level, and so on (Ezedinma, 2016). This implies that what students learn at the lower level is systematically linked to what they will learn at the upper level in basic science and the core science subjects at the senior secondary school (SSS) level.

Thus, the importance of basic science to individuals and society cannot be overstated. The overall objectives of the basic science curriculum, as stated by the Federal Republic of Nigeria (2013), include enabling learners to: develop an interest in science and technology; acquire basic knowledge and skills in science and technology; apply scientific and technological knowledge and skills to meet societal needs and solve everyday life problems; take advantage of the numerous career opportunities offered by science and technology; and become prepared for further studies in science and technology. Thus, it provides rudimentary scientific skills required by individuals for survival, sustainable development, and societal transformation (Ogunjobi, 2016). The author added that the subject is designed to expose students to science skills, which can help them resolve day-to-day problems. It promotes the development of necessary capabilities and creative skills that will enable individuals to cope with the ever-changing technological world (Omoifo, 2019). This central position of basic science as the bedrock for science and technological developments justifies its inclusion in the Nigerian school curriculum.

It is imperative to note that, no matter how well-planned and organized a basic science curriculum is, little or no positive result can be achieved if there is no proper implementation. Metz and Bartley (2013) defined implementation as the process of executing a plan, idea, model, design, specification, standard, or policy for doing something. It is the process of putting a decision or plan into effect or action (Ugwuanyi & Chukwuemeka, 2013). Accordingly, basic science teachers are expected to implement the curriculum by adopting appropriate methods and strategies for teaching and learning basic science. The teacher is required to guide the learners in carrying out the expected learning activities. According to Okonkwo and Ozurumba (2009), within the classroom, the teacher is a facilitator or a helper who guides learners as a result of training and experience gathered in the profession. As a planner, the teacher is involved in developing learning objectives, designing the method for achieving the objectives, and deciding on the assessment practice that will help generate feedback for possible improvement. The process of teaching therefore demands a high level of teacher competency.

Teachers' competency therefore plays a critical role in the curriculum implementation process. Onyeneho (2013) defined teachers' competency as their ability to be functionally adequate in the performance of expected tasks. It is a set of teachers' abilities, knowledge, and beliefs that are used to create an effective learning process (Guerrero, 2016). With respect to the implementation of the basic science curriculum, teachers' competencies therefore involve the abilities and skills expected of teachers for effective implementation of the basic science curriculum.

It is therefore pertinent to say that every basic science teacher ought to possess the requisite competencies to enable the teacher to function optimally. Mthethwa-Kunene, Onwu, and de Villiers (2015) stated that there are three areas of competency for the teacher, which include mastery of the content taught, pedagogical knowledge, and understanding the difficulties that would potentially impact learners when studying the content. The European Commission (2017) stated that teachers need to possess certain competencies such as content knowledge competence, pedagogical competence, classroom management competence, resourcefulness, and assessment and evaluation skills. Onyilo and Shamo (2017) also asserted that before going into the teaching profession, teachers must have undergone sufficient training in order to acquire such competency. This implies that teachers are expected to acquire a great deal of the above-mentioned competencies in order to achieve the desired learning outcomes. With the infusion of new content into the basic science curriculum, one may wonder how many competencies are possessed by basic science teachers for effective implementation of the curriculum. This is because the possibility of competency gaps among the teachers is inevitable.

Competency gaps, as defined by Ezeudu and Utazi (2014), involve the difference between the competencies possessed and the competencies needed. Ezeudu and Utazi also explained that gaps could be considered a comparison of actual performance against expected performance. Thus, in this study, the competency gap refers to the difference between the abilities or capabilities needed by basic science teachers and those possessed by them for the implementation of the basic science curriculum. Nwachukwu (2017) observed that basic science teachers appear not to have adequate knowledge and

skills or the required competencies for teaching the subject. This can consequently lead to poor implementation of the Basic Science curriculum due to some competency gaps, which may result in poor achievement in the subject.

In line with the above, previous reports have shown that students' academic achievement in basic science has been relatively poor (Bukunola & Idowu, 2012). Omebe and Omiko (2015) also observed that the performance of students in the Junior Secondary School Certificate Examination (JSSCE) in basic science was not encouraging. Evidence of students' achievement in basic science in the Basic Education certificate examination in Ebonyi State from 2018 to 2020 has shown that the majority of the candidates who enrolled for the examination had less than a credit pass, which is poor and disturbing. This could be attributed to the competency level of teachers in the teaching of the subject (Osuolale, 2014). The question then is whether there are competency gaps among basic science teachers in the implementation of the basic science curriculum or not.

Some available related studies have failed to clearly show the competency gaps in the implementation of the basic science curriculum. For instance, Offor (2016), who examined basic science teachers' competency in implementing the new basic science and technology (BST) curriculum, only reported that the teachers' competency level was low. Agbi (2017) found that integrated science teachers were moderately competent in planning and implementing instruction, evaluating instruction, and classroom management. Furthermore, Gongden and Gongden (2018), who conducted a study to assess basic science teachers' competencies in using simulations and games in schools, revealed that basic science teachers were not competent in content knowledge, pedagogy, or evaluation. In their study, Achor, Ejeh, and Odaudu (2018) submitted that teachers need training in order to equip them with pedagogical and classroom management competencies as well as relevant assessment skills and to make them resourceful. Similarly, Nwafor (2019) revealed poor content knowledge and pedagogical skills among basic science teachers. This situation seems to suggest that there may have been competency gaps among basic science teachers. However, there is a paucity of empirical literature to justify this claim. Hence, the problem of this study was to address this question: what are the basic science teachers' competency gaps in the implementation of the basic science curriculum in Ebonyi State?

Purpose of the Study

The general purpose of this study is to determine the basic science teachers' competency gap for the implementation of the basic science curriculum in Ebonyi State. Specifically the study determined the:

1. competencies needed by basic science teachers for the implementation of basic science curriculum;
2. competencies possessed by basic science teachers for the implementation of basic science curriculum;
3. competency gaps that basic science teachers need to fill in the teaching of the new basic science curriculum?

Research Questions

The following research questions were posed to guide the study:

1. What are the competencies needed by basic science teachers for implementation of basic science curriculum?
2. What are the competencies possessed by basic science teachers for implementation of the basic science curriculum?
3. What are the competency gaps that basic science teachers need to fill in the implementation of the new basic science curriculum?

Method

The study utilized a descriptive survey research design. This is because the researchers were interested in collecting data on and describing in a systematic manner the competency gap of basic science teachers in the implementation of the basic science curriculum, which made the design more appropriate. The study was carried out in Ebonyi State, Nigeria. The study population comprised 306 (142 male and 164 female) basic science teachers in all the 228 public junior secondary schools in Ebonyi State. Out of the population, a multistage sampling procedure was used to draw a sample of 168 (76 male and 88 female) teachers for the study. The Basic Science Teachers' Competency Need and Possessed Questionnaire (BSTCN&PQ), developed by the researchers, were used for data collection. The BSTCN&PQ had two sections (A and B1 and B2). Section A elicited the demographic

information of respondents, while Sections B1 and B2 contained 54 items that elicited data on competencies needed and those possessed by basic science teachers' in the implementation of the basic science curriculum. In Section B1, the respondents provided their responses based on the modified Likert type scale that ranged from Highly Needed (HN), Needed (N), Moderately Needed (MN), and Not Needed (NN), with numerical values of 4, 3, 2, and 1, respectively. While the B2 section was used by the researchers and the research assistants in rating the respondents following a scale that ranged from Highly Possessed (HP), Possessed (P), Moderately Possessed (MP), and Not Possessed (NP), with numerical values of 4, 3, 2, and 1, respectively.

The instrument was subjected to face-to-face validation by three specialists: one each from Measurement and Evaluation, Biology Education, and Integrated Science Education. The validators were requested to scrutinize the items of the instrument in terms of relevance to the purpose of the study, adequacy, language clarity, and appropriateness to the problem under study. The specialists were also requested to make comments and suggestions with regards to how to improve the quality of the instruments. Their comments, corrections, and suggestions, such as modifications of the specific purposes, research questions, and hypotheses, as well as some of the items in terms of grammar and appropriateness, led to the final version of the instruments.

The reliability of the Basic Science Teachers' Competency Need and Possessed Questionnaire (BSTCN&PQ) was ascertained after trial-testing it on a sample of thirty (30) basic science teachers in public junior secondary schools in Onueke Education Zones of Ebonyi State, which was not sampled for the study. The reliability coefficients (r) for the BSTCN and PQ were obtained using Cronbach's alpha method for the instrument. Overall reliability coefficients of 0.87 and 0.85 were obtained for sections B1 and B2 of the instrument, which showed that it was good for the study. The instruments were administered to the respondents and retrieved immediately upon completion of the respondents' section. Thereafter, the researcher and the research assistants used the same instruments to rate the Basic Science teachers' competencies in the implementation of the Basic Science Curriculum, such as content knowledge competence, pedagogical competence, classroom management skills and competence, resourcefulness, and the teachers' assessment and evaluation skills. This was done during basic science lessons.

The collected data were sorted and coded in the IBM Statistical Package for the Social Sciences (SPSS) and analyzed using the mean and standard deviation. The interpretation of the mean for research question 1 will be based on the real limit of numbers as follows: highly needed (HN) = 3.50–4.00, needed (N) = 2.50–3.49, moderately needed (MN) = 1.49–2.49, and not needed (NN) = 1.00–1.49. For research question 2, the interpretation will be, Highly Possessed (HP) = 3.50–4.00, Possessed (P) = 2.50–3.49, Moderately Possessed (MP) = 1.49–2.49, and Not Possessed (NP) = 1.00–1.49.

Results

Research Question One (1): What are the competencies needed by basic science teachers for implementation of basic science curriculum?

Table 1: Mean and standard deviation on the competencies needed by basic science teachers for implementation of basic science curriculum (n=168)

S/N	Item Statements	Cluster Means	Standard Deviation	Decision
1.	Content knowledge competence.	3.47	.70	N
2.	Pedagogical competence	3.41	.79	N
3.	Classroom management competence.	3.51	.80	HN
4.	Resourcefulness	3.54	.69	HN
5.	Assessment/evaluation skills.	3.61	.81	HN
Grand Mean		3.51	.46	HN

Note: n = Number of Respondents, N = Needed, HN = Highly Needed

The result in Table 1 shows that the mean responses for content knowledge competence and pedagogical competence were within the range 2.50–3.49, which implies that they are needed by basic science teachers in the implementation of the basic science curriculum. The mean ratings for classroom management competence, resourcefulness, and assessment and evaluation skills were within the range of 3.50–4.00, which shows that they are highly needed by basic science teachers in the implementation of the basic science curriculum. Furthermore, the grand mean value of 3.51 also falls within the above range for highly needed. This is indicative that content knowledge competence, pedagogical competence, classroom management competence, resourcefulness, and assessment and

evaluation skills are highly needed by basic science teachers in the implementation of the basic science curriculum.

Research Question Two (2): What are the competencies possessed by basic science teachers for implementation of the basic science curriculum?

Table 2: Mean and standard deviation on the competencies possessed by basic science teachers for implementation of the basic science curriculum($n=168$)

S/N	Item Statements	Cluster Means	Standard Deviation	Decision
1.	Content knowledge competence.	2.14	.47	MP
2.	Pedagogical competence	2.23	.57	MP
3.	Classroom management competence.	2.13	.47	MP
4.	Resourcefulness	2.15	.65	MP
5.	Assessment/evaluation skills.	1.69	.49	MP
Grand Mean		2.09	.29	MP

Note: n = Number of Respondents, MP = Moderately Possessed

The results in Table 2 indicate that the mean rating for all the competencies was within the range of 1.50-2.49, which shows the various competencies are moderately possessed by basic science teachers in the implementation of the basic science curriculum. The grand mean value of 2.09 also falls within the above range. This implies that basic science teachers moderately possess content knowledge competence, pedagogical competence, classroom management competence, resourcefulness, and assessment and evaluation skills.

Research Question Three (3): What are the competency gaps that basic science teachers need to fill in the implementation of the new basic science curriculum?

Table 3: Mean and Standard Deviation on the competencies gaps that basic science teachers need to fill in the implementation of the new basic science curriculum. N = 168

S/N	Item Statement	\bar{X}_N	\bar{X}_P	$\bar{X}_N - \bar{X}_P$	Rmk
1.	Content knowledge competence.	3.47	2.14	1.33	ECG
2.	Pedagogical competence	3.41	2.23	1.18	ECG
3.	Classroom management competence.	3.51	2.13	1.38	ECG
4.	Resourcefulness	3.54	2.15	1.39	ECG
5.	Assessment/evaluation skills.	3.61	1.69	1.92	ECG
Grand Mean		3.51	2.09	1.44	ECG

Note: n = Number of Respondents, \bar{X}_N = Competencies Needed, \bar{X}_P = Competencies Possessed,

$\bar{X}_N - \bar{X}_P$ = Competencies Gap, ECG = Existence of Competency Gap

The results in Table 3 show that the competency gap values ranged from 1.18 to 1.33 and were positive. This is an indication that there is a competency gap in content knowledge competence, pedagogical competence, classroom management competence, resourcefulness, and assessment and evaluation skills. The grand mean competency gap value of 1.44 showed that there are large competency gaps in basic science teachers' content knowledge, pedagogical and classroom management competencies, as well as resourcefulness and assessment and evaluation skills.

Discussions

The aim of this study was to examine the gaps in basic science teachers' competencies in the implementation of the basic science curriculum in Ebonyi State. The findings of the study showed that content knowledge competence, pedagogical competence, classroom management competence, resourcefulness, and assessment and evaluation skills are highly needed by basic science teachers in the implementation of the basic science curriculum. This finding is true because, with the infusion of some contents into the new basic science curriculum, the teachers may need some level of competency in the implementation of the new curriculum. This finding agrees with Nwachukwu (2017), who observed that basic science teachers appear not to have adequate knowledge and skills or the required

competencies for teaching the subject. In the same vein, the finding is consistent with that of Achor, Ejeh, and Odaudu (2018), who submitted that teachers need training in order to equip them with pedagogical and classroom management competencies as well as relevant assessment skills and to make them resourceful. This implies that the teachers needed some level of competency in teaching their subject area.

The findings of the study showed that basic science teachers moderately possessed content knowledge competence, pedagogical competence, classroom management competence, resourcefulness, and assessment and evaluation skills. This means that basic science teachers do not possess the maximum competencies for effective implementation of the basic science curriculum. This finding is consistent with the finding by Offor (2016), who examined basic science teachers' competency in implementing the new basic science and technology (BST) curriculum and reported that the teachers' competency level was low. The finding also lends support to the finding of Agbi (2017), which showed that integrated science teachers were moderately competent in planning and implementing instruction, evaluating instruction, and classroom management. This shows that basic science teachers still need a great deal of the abovementioned competencies in order to ensure effective implementation of the basic science curriculum.

Finally, the study revealed that there is a large competency gap in basic science teachers' content knowledge, pedagogical and classroom management competencies, as well as resourcefulness and assessment and evaluation skills. This finding adds credence to Ezeudu and Utazi's (2014) revelation that there were competency gaps among geography teachers that needed to be filled for effective teaching and learning in secondary school. In the same vein, the finding agrees to some extent with Gongden and Gongden (2018), whose study discovered that basic science teachers were not competent in content knowledge, pedagogy, or evaluation. Likewise, the finding lends support to Nwafor (2019), who revealed poor content knowledge and pedagogical skills among basic science teachers. These findings portray that basic science teachers have some competency gaps that need to be filled in order to ensure effective implementation of the basic science curriculum in Ebonyi State, Nigeria.

Conclusion

Based on the findings of this study, it is concluded that there is a moderate level of content knowledge competence, pedagogical competence, classroom management competence, resourcefulness, and assessment and evaluation skills among basic science teachers. This portrays considerable competency gaps among the teachers in the implementation of the basic science curriculum. Hence, if the competency gaps are not addressed, there is likely to be poor teaching and learning of the subject, which will likely result in poor student achievement in the subject.

Recommendations

Based on the findings, the researchers recommended that:

1. Basic science teachers should be encouraged to ensure proper self-development of the competencies needed for effective implementation of the basic science curriculum.
2. The government, through the federal and state ministries of education, should organize workshops for the training of in-service teachers of basic science on the various competencies required for effective implementation of the basic science curriculum.
3. Teachers' education programmes should ensure that basic science teachers are adequately equipped with the necessary competencies for effective implementation of the basic science curriculum.

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**ENTREPRENEURSHIP EDUCATION FOR EMPLOYMENT
CREATION TO SENIOR SECONDARY SCHOOL LEAVERS IN
ENUGU STATE**

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Abstract

The study adopted descriptive survey research design using a sample of 500 students sampled from Enugu South and Igbo-Etiti education zones of Enugu State. The instrument for data collection titled entrepreneurship education for employment creation to senior secondary school leavers in Enugu State was developed by the researchers. It was validated by three experts from the faculty of Education, two from educational foundations and one from measurement and evaluation, the items in the questionnaire were 30 items in three clusters. The instrument was trial tested in Nsukka Education zone of Enugu State and the reliability coefficient of 0.77, 0.79 and 0.70 were obtained for the three clusters. The four-point rating scale of Strongly Agree, (4) Agree, (3) Disagree, (2) Strongly Disagree (1) were used to answer the questionnaire. Mean and standard deviation were used to answer the three research questions while t-test was used to analyze the null hypotheses at 0.05 level of significance. The findings of the study revealed that the male students actually need fabrication skills to be employed after graduation from secondary schools. The male students agreed that they need the ICT courses in the curriculum to suit the societal needs. They agreed that they were not taught practical aspect of the skills. Conclusion was drawn and recommendations made among others that the federal government should provide facilities and equip schools with entrepreneurial facilities to enable students learn practical aspect of the skills.

Keywords: Employment Creation, Entrepreneurship, Entrepreneurship Education, Senior Secondary School Leavers.

Introduction

The Federal Government in the bid to reduce unemployment in the country established a lot of programs, like Operation Fed the Nation during President Olasanjo's regime, Green Revolution of President Shagari, the Better Life Program of President Babangida's regime and the Seven Point Agenda of President Buhari: The Economic Recovery and Growth Plan (ERGP) which was one of the initiative of investing in our people for job creation and youth empowerment (FRN, 2017). N-Power Scheme to mention but a few. All these were aimed at reducing the rate of unemployment in the country. The Federal Ministry of Education was not left out, they also thought it wise to introduced entrepreneurship education in 2011 in Nigeria senior secondary schools to establish creativity among secondary school leavers and for them to be on their own after secondary school and even create employment for others. The recent economic crunch in the country created a lot of unemployment in many sectors of the country that even the young school leavers find it difficult to find jobs, high rate of unemployment caused by high population growth and underutilization of resources. Entrepreneurship education in secondary schools were to teach activity based skills, so that students can possess skills, abilities, knowledge, attitudes and capacities both in economic, social and political space. The specific goals of education in Nigeria (FRN, 2018) is to ensure that quality of education delivery at all levels, promote functional education for skill acquisition, job creation and poverty reduction among others.

Education is a vehicle that can give a social transformation to individual and change individuals character, attitude and behaviour (Onyene, 2014). In other words, Education is a tool for better entrenchment of deep knowledge base required to attain global relevance, meet societal demands, exposure and adaptation (Olunwe, 2014). Entrepreneurial Education is the process of equipping the students with skills, the capabilities of anticipating and responding to societal changes,

training to develop and use their creativity to take initiative responsibility and risks, to also develop their creative mind, skill, positive thinking and reflective mind (Ado, 2016). Amede and Okoh (2016), views entrepreneurship education as transfer of skills, knowledge and information that adequately prepare an individual to live a satisfied life and positively influence others. It implies that entrepreneurship education is skill oriented and capable of giving recognition to an individual to be employed and can be an employer of labor; it is a viable tool for self – empowerment, job and wealth creation. Entrepreneurship education is one of the arms of training that equip individuals with knowledge, skills and attitudes needed for creating employment (Ogunjobi, Ojo, Odewale, & Alachi, 2020).

Entrepreneurship education should be activity based. It focuses on the development of skills or attributes that enable the realization of opportunities. One of the objectives of entrepreneurship education as listed by Ocheni (2018) among others is to provide skillful education for the youths to be self-reliant, encourage them to drive profit and to be self – independent or self- employed. Ayoola, Amosun and Olusola (2011) noted that Entrepreneurial Education provide students with knowledge, skills and motivation to encourage entrepreneurial success in a Variety of settings, it prepares people, particularly youth, to be responsible, enterprising individual who become entrepreneurs or entrepreneurial thinkers by immersing them in real life learning experience where they can take risks, manage the results and learn from outcomes. But one wonders whether school leavers actually acquired the skills, abilities, attitude, competences and knowledge needed to operate in the society as entrepreneurs. Ikwuegbu and Nwaneri (2014) opine that the goals of Nigerian education and the curriculum are well structured and the contents are adequately defined but the question is, were these objectives been achieved? Continuing, Ikwuegbu and Nwaneri observed that in spite of entrepreneurship education thought in the schools, majority of the Nigeria youths are idle and some are involved in various vices due to unemployment. This is because most of the skills thought in secondary schools are mainly theoretical as such they do not have the required skills to either fit into many types of jobs or create jobs. Junaidu (2020) noted that every year, an average of 4 million people enter the labour market in search of employment mostly those who have finished their studies from tertiary institutions and from secondary schools.

Employment is a state of having a paid job; it could be full time or part time work. It is a mutual work arrangement between a recruiter and an employee. Employment means creating and supporting the enabling conditions under which people can act on their own belief, on their own terms, rather than at the direction of others (Florence, 2015). Employment creation is the process of creating new jobs, especially to provide gainful work for people who are unemployed; it helped in bridging the gap of unemployment by setting up small scale businesses. Employment creation is like creating jobs or empowering someone to be gainful. Employment means creating and supporting the enabling conditions under which people can act on their own belief on their own terms, rather than at the direction of others (Florence, 2015). In order to help in enhancing employment creation, all students of senior secondary schools need to be grounded with skills, abilities, competences and knowledge before leaving school so as to prepare them to be employable and can contribute to creating jobs also.

Employment creation is also known as job creation which is an essential aspect of any development process of wellbeing and social cohesion of any nation. The benefits of employment in any economy should not be over emphasized, it gives job opportunities, increase competition and boost productivity, it creates new business and new markets, it adds to national income, it introduces innovative technologies. Employment creation maintain a healthy economic growth, financial gain, job satisfaction, self-dependence and has irregular working hours (Edikpa & Okeke, 2013) and whenever people are working and be able to provide for themselves and their families, their morale increases, things stabilize and start to change for them. Entrepreneurs provide a large no of employment opportunities to the people to work, earn money and manage their business activities.

Senior secondary school leavers are students that are in the senior classes about to graduate from secondary school. There are in SS1, SS2, and SS3. Some of them may not be lucky enough to gain admission into the tertiary institutions or may not have someone to take care of them; as such they need skills that can fetch them jobs or be on their own. Such skills could be carpentry or furniture making, photography and video coverage, belt and shoe making, detergent and soap making, tailoring /fashion designing among others.

Statement of the Problem

Observations shown that though, entrepreneurship education were introduced in the senior secondary school system for students to learn skills that can help them create jobs for themselves and others. It was far-fetched because they were taught theoretical aspect of the skills without the practical

aspect; as such their training was half baked. There was lack of expertise (no qualified teachers) to handle the trade subjects as such, students graduate from secondary schools not fully equipped. There were inadequate infrastructural facilities (equipment) that can handle the practical aspect of skill acquisition. More so, there were inadequate financial resources. These causes for fallen standard of education which suggests decline in the literacy level of the products. The entrepreneurship education courses/trade subjects could not give the students the desired skills and abilities needed to create jobs for themselves, talk of others. There is the observation that students that graduate from secondary schools cannot speak fluently or write good or correct English language. Entrepreneurship education has not been given due attention which it deserves to be able to achieve its goals. It is based on this serious concern that this study seeks to investigate the entrepreneurship education for employment creation in senior secondary schools in Enugu State.

Purpose of the Study

The purpose of the study is to investigate the entrepreneurship education for employment creation in senior secondary school leavers in Enugu State.

Specifically, the study seeks to:

1. Find out the basic fabrication skills needed by the school leavers to be employed after graduation?
2. Ascertain the ICT courses in the curriculum to suit the societal needs?
3. Examine how the school could solve the problem of unemployment in Enugu State.

Research questions

The following three research questions guided the study

1. What are the basic fabrication skills needed by the school leavers to be employed after graduation?
2. What ICT courses need in the curriculum to suit the societal needs?
3. How can the school solve the problem of unemployment in Enugu State?

Hypotheses

H₀₁: There is no significant difference between the mean scores of urban and rural male students in various fabrication skills needed by the school leavers to be employed after graduation.

H₀₂: There is no significant difference between the mean scores of urban and rural male students in the ICT courses in the curriculum to suit the societal needs.

H₀₃: There is no significant difference between the mean scores of urban and rural male students in area the school can solve the problem of unemployment in Enugu State

Methodology

The study adopted a descriptive survey design to investigate the entrepreneurship education for employment creation in senior secondary schools in Enugu State. Population of the study comprised 1618 male students' drawn from the two education zones (Enugu South and Igbo-etiti Education zones) in Enugu State. Enugu south education zone has population of 1037 males while Igbo-etiti education zone has 581 males (PPSMB School Population 2017). Multi-stage sampling was used. Firstly, random sampling technique was used to draw two education zones that have almost the same number of schools from Enugu State. Secondly, proportionate random sampling technique was used to draw 500 students from Enugu South and Igbo-etiti education zones, representing 33 % of the population.

The instrument for data collection was the researchers developed tagged entrepreneurship education for employment creation in senior secondary schools (EEECSSS). It was validated by three experts from the faculty of education, university of Nigeria, Nsukka; two from educational foundations and one from science education (measurement and evaluation unit). The instrument was trial tested in Nsukka education zone and the reliability was measured with Cronbach Alpha method and it yielded an index of 0.77, 0.79 and 0.70 for the three clusters respectively. The four-point rating scale of Strongly Agreed (4), Agreed (3), Disagreed (2) and Strongly Disagreed (1) were used to answer the questionnaire. Mean and standard deviation were used to answer the three research questions, while t-test was used to test the null hypotheses at 0.05 level of significance.

Results

Research Question 1: What are the basic fabrication skills needed by the school leavers to be employed after graduation?

Table 1: Mean rating of the basic fabrication skills needed by the school leavers to be employed after graduation.

S/N	Basic fabrication skills Equip them with	school leavers No. 500 males	mean X	SD SD	Decision
1.	Metal construction skills		3.25	0.46	Agreed
2.	Welder skills		3.30	0.58	Agreed
3.	Wood carving work skills		3.00	0.16	Agreed
4.	Plumber skills		3.11	0.48	Agreed
5.	Vulcanize		3.18	0.47	Agreed
6.	Carpentry/ furniture		3.05	0.49	Agreed
7.	Belt and Shoe making		3.35	0.44	Agreed
8.	Photography/ Video		3.30	0.58	Agreed
9.	Tailoring/Fashion designing		3.00	0.62	Agreed
10.	Detergent /soap making		3.14	0.48	Agreed
	Aggregate mean and standard deviation		3.17	0.47	Agreed

Data in table 1 shows the mean and standard deviation on the fabrication skills needed by the school leavers to be employed after graduation. The students agreed on items in the table with high mean scores greater than the mean criterion of 2.50. From the table, it was discovered that the higher mean scores have lower standard deviation while the lower mean scores has higher standard deviation. The aggregate mean scores of 3.17(SD = 0.47) for the students. As such, the students agreed that they needed these basic fabrication skills which they can use their hand and cognitive ideas to do on their own. Skills include; metal construction skills, welder, wood carving work, plumber, vulcanize, carpentry/furniture, belt and shoe making, photography/video, tailoring/fashion designing and detergent/ soap making.

Research Question 2: What ICT courses need in the curriculum to suit the societal needs?

Table 2: mean scores of ICT courses need in the curriculum to suit the societal needs.

S/N	Courses in curriculum	Mean	SD	Decision
11.	Can you count 1-90	3.02	0.62	Agreed
12.	Can you recognize odd numbers 1-3-5-7-9-11	3.21	0.59	Agreed
13.	Can you read and write	3.00	0.62	Agreed
14.	Can you use a computer system	3.13	0.60	Agreed
15.	Can you type on computer	3.11	0.60	Agreed
16.	Can write reports on computer	3.27	0.58	Agreed
17.	Can you associate numbers with money?	3.19	0.59	Agreed
18.	Can you retrieve files from computer system	3.03	0.62	Agreed
19.	Can you recognize basic arithmetic signs	3.23	0.59	Agreed
	Aggregate mean and standard deviation	3.13	0.60	Agreed

Data in table 2 reveals that the mean scores and standard deviation on ICT courses need in the curriculum to suit the societal needs. The students agreed on the items in the table with high mean scores greater than the mean criterion of 2.50, from the table, it was discovered that the higher mean scores beget lower standard deviation while lower mean scores beget higher standard deviation. The aggregate mean scores of 3.13 (SD = 0.60) for the students indicates that all the items in the table are the ICT courses that they are taught and its needed in the society. These items include; can you count 1- 90, can you recognize odd numbers, 1-3-5-7-9-11, can you read and write, can you use a computer system, can you type on a computer, can you write reports on a computer, can you associate numbers with money, can you retrieve files from computer system, and can you recognize basic arithmetic.

Research Question 3: How can the school solve the problem of unemployment in Enugu State?

Table 3; mean ratings and standard deviation of the students on how the school can solve the problem of unemployment in Enugu State

S/N	Solve problem of unemployment	mean	SD	Decision
20.	Teach students practical aspect of the skill	3.04	0.50	Agreed
21.	Teach students only theory	2.35	0.86	Disagreed
22.	Have you been practicing the skill?	2.30	0.90	Disagreed
23.	Do non experts teach in the school?	2.50	0.58	Agreed
24.	Do you have equipped lib for practice?	2.18	0.79	Disagreed
25.	Do your timetable give enough time to study and for practice?	2.45	0.68	Disagreed
26.	Do you go for execution in companies?	2.38	0.84	Disagreed
27.	Have you visited any furniture shop?	2.45	0.68	Disagreed
28.	Have you visited any fashion shop?	2.48	0.64	Disagreed
29.	Do you go for outside lesson on computer?	3.23	0.23	Agreed
30.	Do you have qualified teacher in trade subjects?	2.55	0.56	Agreed
	Aggregate mean and standard deviation	2.70	0.60	Agreed

Data on table 3 presents the mean scores and standard deviation of student’s responses on how the school can solve the problem of unemployment in the society. Some of the students agreed and some disagreed on the items since some items did not reach the mean criterion of 2.50. From the analysis, it was discovered that higher mean scores beget lower standard deviation while the lower mean scores beget higher standard deviation. The aggregate mean scores and standard deviation, is 2.70 while SD= 0.60. this indicates that the respondents agreed in only four items which isteachthe students practical aspect of the skill, do non experts teach in the school, do you go for outside lesson on computer and do they have qualified teacher in trade subjects. The items that disagreed were six items, these include; teach student only theory, have you been practicing the skill, do you have equipped lib for practice, do your timetable give enough time to study and for practice, do you go for execution in companies and have you visited any fashion shop.

H01: There is no significant difference between the mean scores of urban and rural male students in various fabrication skills needed by the school leavers to be employed after graduation.

Table4: summary of t-test on the difference between the mean scores of urban and rural male students on various fabrication skills needed by the school leavers to be employed after graduation.

Areas	N	Mean	SD.	df	t-cal	t-crit	p-val	sig	Decision
Urban	300	3.38	0.38	498	-1.66	-2.00	0.10	0.05	accepted
Rural	200	3.25	0.35						

Data on table 4 shows the summary of t-test on the difference between the mean scores of urban and rural male students on various fabrication skills needed by the school leavers to be employed after graduation. Based on the analysis, the t-calculated value of -1.66 is less than the t-critical value of -2.00, while the p-value of 0.10 is greater than the significance level of 0.05 indicating that the null hypotheses was rejected. Therefore, there is no significance difference between the mean scores of urban and rural male students on various fabrication skills needed by the school leavers to be employed after graduation.

H02: There is no significant difference between the mean scores of male and female students in the ICT courses need in the curriculum to suit the societal needs.

Table 5: Summary of t-test on the difference between the mean scores of urban and rural male students on the I C T courses need in the curriculum to suit the societal needs.

Area	N	Mean	SD	df	t-calt	-crit	p-val	sig	Decision
Urban	300	3.27	0.87	498	-0.180	-2.00	0.08	0.05	Accepted
Rural	200	3.18	0.35						

Data on table 5, presents the summary of t-test on the difference between the mean scores of urban and rural male students on the I C T courses in the curriculum to suit the societal needs. Based on the

analysis, the t-calculated value of -0.180 is less than the t-critical value of -2.00. While the p-value 0.08 is greater than the significance level of 0.05 indicating that the null hypothesis was accepted. Therefore, there is no significance difference between the mean scores of urban and rural male students on the ICT courses in the curriculum to suit the societal needs.

H03: There is no significant difference between the mean scores of male and female students in area the school can solve the problem of unemployment in Enugu State.

Table 6: Summary of t-test on the difference between the mean scores of urban and rural male students on the area the school can solve the problem of unemployment in Enugu State.

Area	N	Mean	SD	df	t-cal	t-crit	p-value	sig.	Decision
Urban	300	3.37	0.34	498	-2.33	-2.00	0.04	0.05	Accepted
Rural	200	3.21	0.88						

Data on table 6 shows the summary of t-test on the difference between the mean scores of urban and rural male students on the area the school can solve the problem of unemployment in Enugu State. Based on the analysis, the t-calculated value of 2.33 is greater than the t-critical value of -2.00. While the p-value 0.04 is less than the significance level of 0.05 indicating that the null hypothesis was rejected. Therefore, there is significant difference between the mean scores of urban and rural male students on the area the school can solve the problem of unemployment in Enugu State.

Discussion of Findings

The findings revealed that, the basic fabrication skills needed by the school leavers to be employed after graduation in secondary schools in Enugu State include: Metal construction skills, welder skills, wood carving work skills, plumber skills, vulcanize, carpentry/ furniture, belt and shoe making, photography/ video, tailoring/fashion designing and detergent /soap making. The test of hypothesis also revealed that there was no significance difference between the mean scores of urban and rural male students on the various basic fabrication skills needed by the school leavers to be employed after graduation. This agrees with the finding of Junaidu (2020) noted that every year, an average of 4 million people enter the labour market in search of employment mostly those who have finished their studies from secondary schools. Since they did not learn the basic fabrication skills in schools they are band to look for employment.

Also, Ikwuegbu and Nwaneri observed that in spite of entrepreneurship education thought in the schools, majority of the Nigeria youths are idle and some are involved in various vices due to unemployment. The result in table 2, revealed that the ICT courses in the curriculum to suit the societal needs, includes: can you count 1-90, can you recognize odd numbers 1-3-5-7-9-11, can you read and write, Can you use a computer system, can you type on computer, can write reports on computer, can you associate numbers with money, can you retrieve files from computer system and can you recognize basic arithmetic signs. The test of hypothesis showed that there is no significance difference between the urban and rural male students on the ICT courses need in the curriculum to suit the societal needs. As such, the null hypothesis was accepted.

This agrees with the finding of Edikpa, Onu, Agu, Chibuko, & Oguejiofor, (2021) opined that some of the youth are basically roaming the streets doing nothing while the entrepreneurship education into secondary school curricula was to guide the development of a responsive, productive quality education and as a means of promoting entrepreneurial skills, innovation, attitude and behavior to school leavers.

The findings of study in table 3, revealed that: How can the school solve the problem of unemployment in Enugu State includes: Teach students practical aspect of the skill, teach students only theory, have you been practicing the skill, do not experts teach in the school, do you have equipped lib for practice, do your timetable give enough time to study and for practice, do you go for execution in companies, have you visited any furniture shop, have you visited any fashion shop, do you go for outside lesson on computer and do you have qualified teacher in trade subjects. This indicates that only four items were agreed on while six items were disagreed on. The test of hypothesis showed that there is significance difference in the mean scores of urban and rural male students on how the school can help solve the problem of unemployment in Enugu State. This agrees with the findings of Ayoola, Amosun and Olusola (2011) noted that Entrepreneurial Education provide students with knowledge, skills and motivation to encourage entrepreneurial success in a variety of settings, it prepares people, particularly youth, to be responsible, enterprising individual who become

entrepreneurs or entrepreneurial thinkers by immersing them in real life learning experience where they can take risks, manage the results and learn from outcome.

Conclusion

From the result of the study, it was observed that entrepreneurship education was not taught in most schools in Enugu State. Those schools that teach it, taught only theoretical aspect of the subject without teaching them practical. Some of the rudiments of these trade subjects are in the normal schools subjects and that was why they were able to understand them. There is a serious problem of schools not offering these trade subjects since school leavers do not have any hope of job even the white collar jobs. It is very clear that the government does not finance entrepreneurship education and yet they want school leavers to be competent in skills to be able to create job.

Recommendations

1. The federal government should try as much as possible to provide facilities/ equipment for the training of the school leavers so that they can be well equipped in the study of entrepreneurial education.
2. Teachers should be trained and equipped in the area of entrepreneurship education so that they can train the students effectively.
3. The government should also provide functional loan scheme that can handle the well-trained entrepreneurs to start off with their own business.

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**A REVIEW OF THE CHALLENGES AND POSSIBLE SOLUTIONS TO
QUOTA SYSTEM ADMISSION POLICY FOR EDUCATIONAL
SUSTAINABILITY IN SOUTH EAST FEDERAL
UNIVERSITIES, NIGERIA**

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Abstract

This paper highlights a review of the Challenges of Quota System Admission Policy for Educational Sustainability in South East federal Universities. The study adopted descriptive survey research design. The population consist 447 entrance offers and administrative staff from the south east federal universities. The total number of 447 of the respondents was adopted as sampling since the size of the population is manageable. A 12-item questionnaire was designed by researchers to collect data. The instrument was validated by two experts in Educational Administration and Planning and one from measurement and evaluation, from university of Nigeria, Nsukka. The major findings showed among others that, admission policy on education should be reviewed for educational sustainability because it with hunched the economic development of human resources, also discourages efforts, merits and encourage social discrimination, quota system admission policy is an act of injustice against some university applicants. The quota system admission policy is an indirect way of swaying violent revolution in the future. However, University admission based on quota system policy increases the quality of education. The study recommends among others that, quota system admission policy be scrap out of university education system if education is an essential for progress and true peace based on national consciousness, solidarity and cohesion and dignity of man for sustainability.

Keywords: Challenges in quota system, admission, policy, sustainability.

Introduction

In the past decades much research has focused on by praising the excellence of Nigerian universities on featuring and ranking high on the world university. Then the students from Europe and America had Nigerian universities as their basement for their academic lives, mostly with scholarships. However, the introduction of quota system admission policy recently into Nigerian universities gave sway to these past glories. In the content of UNESCO (2023), the universities have established principle, assumption, and norms that govern education decision-making and practices called policy. Sinclair (1992) defines this policy as set principles, rules, and guidelines formulated or adopted by an organization to reach its long-term goals, and those are typically published in a booklet or other form that is widely accessible. Ikeanyi (2013) observes that public policy is a tool of governance. It an instrument through which society is ordered steered and directed towards desired end. At the end, Ikeanyi highlighted an important feature of public policy as: policy meant to resolve societal problems requiring collective action such as in the economy, education, health, defense, foreign affairs, social welfare, transportation and housing. So, quota system admission policy in Nigeria not accepted. Obielumani (2008) defines Quota system as any selection method (for employment, school admission, among others) whereby a certain set of percentage of those selected must be of a given ethnic or racial background and/or of a particular sex in Nigeria. The admission policy in Nigeria requires that a ratio of 60:40 in favor of sciences to arts be maintained. In line with this, the entry qualification is pegged at five credits in not more than two sittings. The federal government guidelines for admissions into its institution of higher learning are based on source elements such as academic merit determined by the

Ume score and 45% of students' admissions are allotted to it. Educationally disadvantaged areas are given 20%, catchment areas have 35% (NUC, 1999). This reflected in Segun et al (2014),

that the university admission quota system breakdown in Nigeria is as follow: Merit 45%, Locality 35%, educational less developed 20%. The implication of this breakdown is that, 45% of the admission will be based on merit, while the remaining 55% will be influenced by other factors other than merit. The federal government among others welcome quota system admission policy for effectively and efficiently prioritization of the achievement of national objectives. This is in a country than in 1988 divided the federating states into two: “educationally advantaged” and “educationally disadvantaged”. In this article, Nigerian university quota system admission policy defines as a corrupt system of admission, unmerited students are admitted instead merit and efforts are discouraged, desterilized and educational sustainability destroyed.

In the past decades to the present days much research has focused on quota system admission policy and came out with some agitating findings, claiming contrarily against federal government aims and objectives on the quota system admission. Quota system admission policy was challenged in court as being discriminatory. It presents one of the biggest legal challenges to affirmative action (Hartocollis, 2019). Yemi Osinbajo (2016) reports that the nation has placed quota system before merit which we know does not work. Onwubiko (2014) in collaboration opines that the quota system admission policy was not welcomed with open arms by most Nigerians. It was rather regarded as an obnoxious policy (Ogoke, 2021). He further said that most Nigerians considered the quota system of admission policy as an act of injustice against some university applicants. However, the quota system admission policy was not welcomed with open arms by most Nigerians. It is an indirect way of sowing violent revolution in the future (Onwubiko, 2014). In this write up, quota system of admission policy is a corrupt system by Nigerian politicians in educational field, nepotism, and religious sentiment to the society. It with hunched the economic development of human resources and entire nation at large. The system discourages efforts and merits and encourages social discriminations and denies meritorious candidates of their right or rightful opportunities in fact are roots of indiscipline of all sorts. Onwubiko (2014) sees it as gross injustice for the federal government to use the collective resources to run the educational institutions only to deny the brilliant and serious-minded candidates of admission into higher institutions to actualize their dreams. He sees it as an indirect way of sowing violent revolution in the future as there is a limit of tolerance by youths denied opportunity to acquire higher education which can translate to better standard of living in the future. It is even sadder to discover that much of the resources in running the country come from the south who suffer most from the application of quota system. In fact, we are in trouble in this country. I never knew there was a “National Board for Arabic and Islamic Education,” headed by Professor, and populated by over 5000 employees, spending N8 Billion annually, to conduct examinations for 1000 students (2016). Besides, the system does not give room for competition. Enemuo (2004) in other hand argues that the policy of quota system of admission promotes injustice...he submits that, application of the quota system to students’ admissions, denies meritorious candidates of their right or rightful opportunity for admissions into the university. It means that quota system of admission in the Nigeria’s university system appears to be unconstitutional and opposing to federal government’s bid to achieving its national goals of building a free, fair and democratic society, just and egalitarian society full of bright opportunities for all citizens as stipulated in her national policy on education (FRN, 2014). Why should brilliant students from the south be denied admission in order to give room for candidates from educationally disadvantaged states, when these slots are not filled as they always are not, they become wasted in that academic year when in actual facts thousands of qualified candidates were denied admission for the fact that they were from educationally advantaged state (Alao, 2010). The quota system and federal character principle are great barriers to learning in the sense that there is nothing like equality of states which the aforementioned mechanisms seem to address greater inequality than the equal treatment of unequal. Moti (2008) has points out the evil in the quota system by say that by the quota system, a candidate in southern states considered to be educationally advantaged, who scores 300 out of 400, may not gain admission into the university, while his or her counterpart in the north who scores less may get admission. He stated further that although it is good to encouraged the educationally disadvantaged, it should not be at the detriment of others. Kanyip (2013) submits that inability of a candidate to gain admission to college or university based on his or her state of origin is unjustifiable.

Using the quota system as an instrument to regulate access to university education is fraught with inequitable implication of reducing the opportunities of admission for highly qualified applicants. Some researchers carried out empirical work to justify these problems created by quota system admission policy. For instance, Olatunde (2008) found that quota system of university admission has negative implications on equal rights among university applicants because; it infringes on the rights of some applicants on the basis of sex, origin among others; affords other applicants more opportunity

through concessions, reduces admission chances of some qualified university applicants from certain areas of the country. Ani (2010) showed that quota system of admission had negative influence on the rights of university applicants from educationally advantaged areas. Again, Okoro and Ede (2010) opined that quota system emphasis on gender, state and local government of origin for university admissions; admitting some university applicants with lower scores. Idika (2010) revealed among other things that the quota system and federal character admission criteria in Nigerian universities are fraught with various problems of right infringements, unfair admission considerations, inequitably distribution of admission opportunities, less regard for merit, infringements of applicants' rights. Omeje, Egwu and Adikwa (2016) showed that quota system and catchment area policies impact negatively on students' admissions. This is because admissions are inequitable and inaccessible; admission processes are messed up, leading to the production of low-quality graduates, unethical practices during admission, and overpopulation of universities' campuses. Similarly, Odigwe and Swam (2016) revealed that university admission based on quota system significantly decreases the quality of education because; it gives concessions to applicants from educationally disadvantaged states, catchment areas for university admission; while university education based on merit significantly increases the quality of university education. Both studies are related in the sense that both of them centered on quota system of admission in universities. Furthermore, Adeyemi (2001) showed that admission ratio into federal universities among states in Nigeria was not proportional to the size of enrollment at the terminal grade of secondary school level which justified affirmative policies such as catchment to redress the imbalance

The above problem believed to be associated with the challenges of quota system admission policy, therefore calls for urgent review for educational sustainability in south-east federal universities. The sustainability of higher institutions in Nigeria refers to the capability of it being continued to a certain level or time without depleting. This is interlinked with the developmental strides of nations which education has an enduring role to play. The concept of development can only be appreciated only if a clearer picture of it is brought into fore. The term, development has an interdisciplinary or multi-faceted disciplinary approaches that it cannot be singly defined as an entity without an elucidation of what it encompasses. The major concern here is, to define development in a holistic approach as it concerns the present discourse. According to Lawal and Oluwatoyin (2011), development can be defined in some situations where the conditions of human existence are improved in all ramifications over time. Eze (2018) observes that, apart from economic growth, development encompasses the equitable distribution of wealth, improved health care, reduction in unemployment rate, among others. Pear Foundation (2018) explains development as, a process that creates growth, profess, positive change or the addition of physical, economic, environmental, social and demographic components. Therefore, the active participation of diverse people in the scholarly enterprise is the best way to combat historic and systematic inequities (ACLS, 2023). Thus, the existence of development in any society or country is a rise in the level and quality of life of the population and the creation or expansions of local income and employment opportunities, without damaging the resumes of the environment. Pears foundation further states that, development is visible and essential, not necessarily immediately, but, it includes and aspect of quality change in the creation of conditions for a continuation of that change. What is inferred in the above definitions is that, development centers on the improvement of the material wellbeing of the peoples, without any compromise, thus educational sustainability. It is against this background therefore, that the researchers' interest was aroused to highlight a review of the challenges of quota system admission policy for the educationally sustainability in south-east federal universities, Nigeria.

Statement of the Problem

Despite the federal government's commitment to providing equal and adequate educational opportunities for all citizens through university education, numerous applicants face persistent denial of their rights and opportunities. The implementation of the quota system of admission has introduced an era of inequitable distribution of university education opportunities among applicants based on their origin and gender. The admission guidelines in federal universities heavily emphasize the

applicants' state of origin and gender, leading to unequal consideration for university admission based on entry benchmarks. As a result, applicants from different states and genders are not assessed on the same criteria, with lower entry score requirements set for those from "educationally disadvantaged" states to accommodate more candidates. This unequal treatment seems unjust, as it denies some applicants equal rights and opportunities for university admission, while favoring others. Qualified applicants with higher entry scores may lose out on admission solely because of their state of origin, depriving them of the opportunity for a better future through university education. This situation appears to contradict the national goal of building a free and democratic society, promoting justice and egalitarianism, and providing bright opportunities for all citizens. Instead, the quota system of admission creates problems of inequity in the distribution of opportunities for university education, particularly by favoring applicants from specific regions. This pressing problem calls for a thorough review of the challenges associated with the quota system of admission policy for educational sustainability. Addressing these issues is crucial to ensure fair and equitable access to university education for all qualified applicants, aligning with the national vision of providing equal opportunities for a prosperous and inclusive society.

Purpose of the Study

The purpose of the study is to highlight a review of the challenges of quota system admission policy for educational sustainability on south-east federal universities, Nigeria. Specifically, the objectives are to:

1. Find out the challenges of quota system of admission policy that militate against educational sustainability in south-east federal universities, Nigerian.
2. Ascertain the possible solution to quota system admission policy for educational sustainability in south-east federal universities, Nigeria.

Research Questions

1. What are the challenges of quota system admission policy that militate against educational sustainability in south-east federal universities, Nigeria?
2. What are the possible solutions to quota system admission policy for educational sustainability in south-east federal universities, Nigeria?

Methods

The study adopted descriptive research design. The population of the study comprised all 307 administrative staff and 140 entrance committee members. The justification for using university administrative and entrance board staff for the study was informed by the fact that they are in charge of day to day management of JAMB admission in the various higher institutions of federal universities. The study population of 447 was considered manageable and was therefore adopted as the study sample. In view of this a sampling technique was therefore not necessary. The main instrument used for data collection for the study was researchers' made questionnaire titled "A Review of the Challenges of Quota System Admission Policy for educationally Sustainability Questionnaire (ARCPSQSAPESQ)". The instrument consisted two sections namely A and B. Section A contained detail information on challenges of quota system admission policy. Section B contained 8 items eliciting information on policy review for educational sustainability in south-east federal universities, Nigeria. The instrument was designed in 4-point rating scale of Strongly Agree (SA-4points), Agree (A-3points), Disagree (D-2points) and Strongly Disagree (SD-1point). The instrument was validated by experts two from educational administration and planning unit while one from measurement and evaluation unit, all from faculty of education, university of Nigeria, Nsukka. A pilot study on 20 administrative and entrance board staff was selected from Enugu State University which was outside the study area was conducted. Cronback alpha method was used to test for the internal consistency of the instrument and its reliability coefficient of 0.79 was obtained which was considered reliable. The researchers administered the instrument to the respondents with the help of three research assistants that were briefed on how to administer and retrieve copies of the questionnaire on the spot. To ensure maximum retrieval of the copies of the questionnaire administered, the completed copies of the questionnaire were collected immediately after completion which helped to minimize wastage and achieved a 100% return rate. Data collected for the study were analyzed using mean, standard deviation statistic. The decision rule was based on 2.50. Any item with a mean rating of 2.50 and above was regarded as agree while any item below 2.50 was regarded as disagree.

Research Question: 1: Find out the challenges of quota system of admission policy that militate against educational sustainability in south-east federal universities, Nigerian.

Table 1: Mean Responses of administrative staff and entrance board committee on the challenges of quota system admission policy for educational sustainability of south-east federal universities

S N	Item statement	Entrance Board			Senior Staff		
		(X)	SD	Dec	(X)	SD	Dec
1	Quota system admission policy is an act injustice against some university applicants.	3.43	0.54	A	3.25	0.81	A
2	Quota system is an obnoxious policy	3.22	0.41	A	2.98	0.91	A
3	It discourages efforts, merits and encourages social discrimination	2.79	0.88	A	3.32	0.56	A
4	The quota system of admission favors students from the disadvantaged states	3.39	0.74	A	3.14	0.84	A
5	It with hunched the economic development of human resources	3:34	0.89	A	3:39	0;95	A
6	The quota system is an indirect way of sowing violent revolution in the future.	3.10	0.72	A	3.04	0.78	A
	Cluster Mean	3.21	0.70	A	3.19	0.81	A

Table 1, showed that mean ratings and standard deviation of Administrative staff and Entrance Board Committee on the challenges of quota system admission policy for educational sustainability of south-east federal universities. The cluster means of 3.21 and 3.19 respectively revealed that the respondents strongly agreed that all the quota system admission policy were needed to refute quota system of admission policy on the educational sustainability on south-east federal universities. The table revealed that the items had their standard deviation ranged from 0.70 to 0.81 which indicated that the respondents were close to the mean and one another in their responses. The cluster standard deviation of 0.70 and 0.81 shows that the degree of variance from the mean is not much.

Research Question 2: Ascertain the possible solution to quota system admission policy for educational sustainability in south-east federal universities, Nigeria.

Table 2: Mean Responses of Administrative Staff and Entrance Board Committee on the possible solution to quota system admission policy for educational sustainability in south-east federal universities, Nigeria.

S/N	Items	Administrative Staff			Entrance Board committee		
		(X)	SD	Dec	(X)	SD	Dec
1	Quota system admission policy encourages peace, harmony, fairness and unity.	3.32	0.94	A	3.01	0.57	A
2	it is enthronement of justice in education sector	3.33	0.38	A	2.99	0.66	A
3	Leads to the production of quality graduates.	3.40	0.37	A	3.04	0.44	A
4	It encourages efforts, merits, needs of individual and a rapid emerging nation.	3.51	0.99	A	3.22	0.66	A
5	University admission based on quota system policy increases the quality of education.	3.16	0.77	A	3.34	0.72	A
6	Encourages ethnicity and nepotism in admission of students.	3.31	0.63	A	3.01	0.52	A
7	It gives room for admission of competent and qualified persons into different institutions of higher learning, leading to higher the educational standards.	3.32	0;93	A	3.24	0.33	A
8	high academic growth and development of the students.	3.20	0.41	A	3.22	0.55	A
9	The quota system offers scholarship to high scores of students	3.70	0.77	A	3.04	0.82	A
	Cluster Mean	3.73	0.69	A	3.12	0.59	A

Table 2, showed that mean ratings and standard deviation of respondents on the possible solution for quota system admission policy for educational sustainability in south-east federal universities. The cluster means of 3.73 and 3.12 revealed that the respondents strongly agreed that all the items are possible solution to quota system admission policy for educational sustainability for south-east federal universities. The table revealed that the items had their standard deviation ranged from 0.41 to 0.99

which indicated that the respondents were close to the mean and one another in their responses. The cluster standard deviation of 0.69 and 0.59 shows that the degree of variance from the mean is not much.

Discussions

The research question one sought to ascertain the challenges of quota system admission policy on educational sustainability in south-east federal universities. The results revealed that the respondents perceived that the quota system admission policy is an act of injustice against some university applicants, is an obnoxious policy also quota system discourages efforts, merits and encourages social discrimination. Other challenges are that quota system of admission favors students from the disadvantaged states, it with hunched the economic development of human resources and the quota system is an indirect way of sowing violent revolution in the future. The finding of study is in line with Enemuo (2000) who stated that the quota system of admission is the practice of favoring some candidates at the expense of others, in university admissions, on the basis of state of origin, tribe, nepotism or choice of course of study. Such practices, he maintains, marred the objective implantation of the 1978 Education policy. Enemuo continues: the application of quota system denies admission, employment, appointment and promotion of the merited candidates. Based on this view, Kosemani in Ogbonnaya (2009) regards such exercise (quota system of admission policy) as the enthronement of injustice in the education sector.

The research question two sought the possible solution to quota system admission policy for educational sustainability in south-east federal universities, Nigeria. The results revealed that the respondents perceived that the quota system admission policy encourages peace, harmony, fairness and unity, it is enthronement of justice in education sector, lead to the production of quality graduates, it encourages efforts, merits, needs of individual and a rapid emerging nation., University admission based on quota system policy increases the quality of education., discourages ethnicity and nepotism in admission of students, it gives room for admission of competent and qualified persons into different institutions of higher learning, leading to higher the educational standards. high academic growth and development of the students. The findings of this study is in line with Ugbor, et al (2021) who stated that the policy should be pursued in terms of diversity of university programmes, and free access to higher educational institutions designed to meet the needs of individual students and the needs of a rapidly emerging nation like Nigeria. According to him, the cardinal principle on which the national policy for higher education must focus attention is that the foundation of higher education is essentially the pursuit of excellence and merit because if excellence and merit are disregarded the entire educational structure may collapse. Therefore, the sustainability of higher institutions in Nigeria refers to the capability of it being continued to a certain level or time without depleting.

Conclusion

After an in-depth review of the challenges and potential solutions related to the quota system of admission policy for educational sustainability in South East Federal Universities, Nigeria, it is evident that several factors pose significant obstacles to its effectiveness. The lack of global support and successful implementation of such a quota system of admission policy further raises concerns about its viability. Based on the findings, researchers have reached the consensus that the most viable path forward is to reconsider the existing quota system and instead, revert to a more conventional and equitable system of admission policy, similar to the practices in Egypt. Furthermore, embracing globally recognized best admission practices is essential if the nation's development and educational sustainability are to be priorityed. By revisiting and improving the current admission policy, South East Federal Universities can foster an inclusive and merit-based educational environment that benefits students and supports the overall development of the nation. It is crucial to embrace progressive and proven approaches to admissions that align with global standards to ensure a brighter and more sustainable future for education in Nigeria.

Contribution to Knowledge

The study contributes significantly to education and policy-making knowledge by identifying challenges with the quota system of admission policy and advocating for systemic change. It emphasizes the importance of considering international best practices and data analysis to shape educational policies. Focusing on educational sustainability, the research calls for a more equitable approach to admissions. Specifically examining South East Federal Universities in Nigeria, the study provides valuable insights for policymakers and educators to enhance educational policies in the region.

Recommendation

Based on the findings of the study, the following recommendation were made:

1. Uphold equal access to education for all Nigerians in university admissions, as stated in the constitution.
2. Encourage universities to address the homogeneity in the teaching profession through policy changes.
3. Deemphasize catchment area policy and focus on community development without compromising education quality.
4. Develop remedial programs in educationally backward states to prepare students for competitive university education.
5. Discontinue discretionary admission policies prone to abuse and lack progressiveness.

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**PRINCIPALS' PERCEPTION OF THE IMPLEMENTATION OF
GOVERNMENT POLICY INITIATIVES ON EDUCATION FOR
SUSTAINABLE DEVELOPMENT IN PUBLIC SECONDARY
SCHOOLS IN ANAMBRA STATE**

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Abstract

The study examined principals' perception of government policy initiatives on education for sustainable development in public secondary schools in Anambra State. Three research questions guided the study. The study adopted the descriptive survey design. The population of the study comprised 263 principals in public secondary schools in Anambra State. The entire population was used for the study. The instrument for data collection was a questionnaire developed by the researchers. The instrument was titled "Questionnaire on the Implementation of Government Policy Initiatives on Education for Sustainable Development (QIGPIESD)". The instrument was structured on a four-point rating scale of Very High Extent (VHE), High Extent (HE), Low Extent (LE) and Very Low Extent (VLE). The instrument was validated by three experts in education. Test on the data collected using Cronbach Alpha reliability method yielded coefficient values of 0.80, 0.85 and 0.75 for clusters B1, B2 and B3 respectively with the average reliability coefficient of 0.80. Mean and standard deviation was used in analyzing data collected for the study. The study revealed that principals perceive the implementation of government policy initiatives on education for sustainable development in public secondary schools in Anambra to be moderate. The study concluded that the implementation of government policy initiatives on education for sustainable development in public secondary schools in Anambra State is ongoing but impeded by challenges emanating from the schools, stakeholders' resistance, poor funding and economic downturn. Based on the findings, the study recommended that government should prioritize education even during difficult times and explore innovative funding mechanisms.

Keywords: *Principals' Perception, Government Policy Initiatives, Sustainable Development Policy Implementation*

Introduction

Education is a powerful instrument for encouraging learning and the development of skills and information that lead to self-sufficiency and higher living standards. The importance of education, especially secondary education cannot be overemphasized as it plays a pivotal role in the supply of manpower needed for national development (Agobua, 2021). The Federal Government of Nigeria (2013) elucidated that the objectives of secondary education are to provide trained manpower in the applied sciences, technology and commerce at sub-professional grades and to provide entrepreneurial, technical and vocational job-specific skills for self-reliance, and for agricultural, industrial, commercial and economic development. In order to meet these laudable objectives, both at the federal and state secondary schools, principals as administrative heads are tasked with the responsibilities of ensuring that government policy initiatives on education are implemented to the latter.

Government policies on education are the various rules, regulations, and guidelines developed by the Nigerian government to guide the administration, management, and delivery of education in the country. These policies are aimed at promoting quality education, expanding access to education, and ensuring that education aligns with national development goals. Edet and Ugbe (2018) posited that educational policy is directed towards increasing the quality of life of people. The objective of any policy is to satisfy individual needs, community pressures and the degree of complexity and sophistication to which socialized personnel must be educated and trained to meet these demands.

Currently the issue of sustainable development has made the government of Nigeria develop educational policies that will help in meeting the developmental needs of Nigerians without compromising the ability to meet their future needs (Brundtland Report, 1987).

Various educational policies have been developed by the Nigerian government on education, such as, Universal Basic Education (UBE) program, which is aimed at providing free and compulsory education for all children at the primary and junior secondary school levels. The UBE policy also aims to address issues such as gender inequality, regional disparities, and poor teacher quality in the Nigerian education system (World Bank, 2018). The government also developed policies aimed at promoting technical and vocational education and training (TVET). In 2013, National Skills Qualification Framework (NSQF), which is aimed at promoting skills development and standardizing qualifications in TVET was launched. Many other policies have overtime been initiated by the government for the sustainable development of education in Nigeria. Education for sustainable development is the incorporation of sustainability principles into the educational system, including teaching and learning processes, curricula development, and school management practices.

The agency in charge of monitoring the implementation of UBE projects is the Universal Basic Education Commission. This agency monitors the activities of the State Universal Basic Education Commission and the Local Government Educational Authorities (Yusha, 2014). According to the implementation guidelines for UBE programmes, due attention is to be given to public enlightenment and social mobilization of people. Teachers are to be an integral part of the process of conceptualization, planning and implementation; there should be provision funds, enriched curricula, provision of infrastructural facilities and more for the success of the scheme (FRN, 2014). As part of the implementation strategy, the UBE Act provides the States of the Federation with intervention funds, which can be accessed upon meeting certain stringent conditions.

Research has shown that many State governments abandoned the intervention funds as a result of their inability to meet the required conditions; thereby abandoning uncompleted projects and refusing to initiate new ones (Human Development Initiatives, 2018). Currently, Nigeria has twenty million out-of-school-children (Alabi, 2022). At the inception of UBE programme the literacy rate in Nigeria was 52%. However, in 2021, it was estimated to be 77.62% (Global Data, 2021). The worst hit is the Northern part of Nigeria with a school attendance rate of 53% (UNICEF, 2022). How far would one say that UBE has gone in increasing access to education and improving literacy levels in Nigeria is the question this research is set to answer.

In recent years, the Nigerian government has recognized the importance of education for sustainable development. However, despite the government's efforts to promote sustainable development in the country, the integration of ESD into the curriculum of public secondary schools has not been effectively carried out (Adedire et al., 2021). This has resulted in a lack of understanding of its importance among stakeholders, particularly principals who are responsible for implementing the policy initiatives. The lack of effective implementation of the initiatives in public secondary schools has significant implications for the sustainable development of Nigeria. The failure to implement these government policy initiatives on education in public secondary schools will hinder the development of sustainable communities in the country. This can lead to several negative consequences, including environmental degradation, social inequality, and economic instability. Therefore, it is imperative to examine principals' perception of the implementation of government policy initiatives on education for sustainable development in public secondary schools in Anambra State and to identify the factors that hinder their implementation so as to propose solutions to enhance the implementation in schools.

Purpose of the Study

The main purpose of this study was to examine principals' perceptions of the implementation of government policy initiatives on education for sustainable development in public secondary schools in Anambra State. Specifically, the study sought to:

1. Examine the extent principals perceive the implementation of government policy initiatives on education for sustainable development in public secondary schools in Anambra State.
2. The factors militating against the implementation of government policy initiatives on education for sustainable development in public secondary schools in Anambra State.

Research Questions

The following research questions guided the study:

1. To what extent do principals perceive the implementation of government policy on education for sustainable development in public secondary schools in Anambra State?

2. What are the factors militating against the implementation of government policy initiatives on education for sustainable development in public secondary schools in Anambra State?
3. What are the perceived solutions to the problems militating against the implementation of government policy initiatives on education for sustainable development in public secondary schools in Anambra State?

Method

The study adopted the descriptive survey design. The study was carried out in Anambra State. The population of the study comprised 263 principals in public secondary schools in Anambra State. The entire population was used for the study. The instrument for data collection was a questionnaire developed by the researchers. The instrument was titled “Questionnaire on the Implementation of Government Policy Initiatives on Education for Sustainable Development (QIGPIESD)”. The instrument has two sections, A and B. Section A contains demographic information of respondents while section B contains 24 items on the principals’ perception, factors militating against the implementation of government policy initiatives on education for sustainable development and the perceived solutions to the problems. The instrument was structured on a four-point rating scale of Very High Extent (VHE), High Extent (HE), Low Extent (LE) and Very Low Extent (VLE). The instrument was validated by three experts in education. The reliability of the instrument was ascertained through a pilot test on 20 principals in Enugu State. Test on the data collected using Cronbach Alpha reliability method yielded coefficient values of 0.80, 0.85 and 0.75 for clusters B1, B2 and B3 respectively with the average reliability coefficient of 0.80. The researchers administered the instruments to the respondents in their offices. The instrument was administered and retrieved on the spot after completion. However, an appointment was booked in cases where the respondents were unable to fill out the questionnaire on the spot. Out of the 263 copies of the questionnaire administered, 242 were retrieved in good condition and used for the computation of data analysis. Mean and standard deviation was used in analyzing data collected for the study. The mean value was used to answer the research questions while the standard deviation was used to determine the relatedness of the respondent’s mean ratings. In analyzing the research questions, any items with a mean rating of 2.50 and above were regarded as agreeing while a mean rating below 2.50 was regarded as disagree.

Results

Research Question 1: To what extent do principals perceive the implementation of government policy initiatives on education for sustainable development in public secondary schools in Anambra State?

Table 1: Mean Summary of Respondents on the Extent They Perceive the Implementation of Government Policy on Education for Sustainable Development in Public Secondary Schools in Anambra State (N=242)

S/N	Items	Mean	SD	Remarks
1.	Government initiatives on education ensure free education for all in public schools	2.36	0.43	Disagree
2.	The policy brings about useful living in the society	2.90	0.39	Agree
4	Every child is compulsorily prepared for higher education	2.40	0.41	Disagree
5	Every girl child is compulsorily sent to secondary school	2.06	0.44	Disagree
5	The government ensures that religion is not a barrier to education	3.29	0.96	Agree
6	Schools offer a diversified curriculum to cater for different talents	3.57	0.97	Agree
7	The government ensures that students are trained in both science and technology	3.18	0.83	Agree
8.	Vocational skills necessary for economic development are implemented in every school	3.26	0.79	Agree
Cluster Mean		2.87		Agree

Data in Table 1 reveal that the respondents agree on the implementation of government policy initiatives on education sustainable development in public secondary schools in Anambra State on

items 2, 5, 6, 7 and 8 with mean ratings of 2.90, 3.29, 3.57, 3.18 and 3.26 and standard deviations of 0.39, 0.96, 0.97, 0.83 and 0.79 respectively. They also disagree on items 1, 3 and 4 with mean ratings of 0.43, 0.41 and 0.44 and standard deviations of 0.43, 0.41 and 0.44 respectively. The cluster mean of 2.87 indicates the principles perceive that government policy initiatives on education are implemented for sustainable development in public secondary schools in Anambra State.

Research Question 2: What are the factors militating against the implementation of government policy initiatives on education for sustainable development in public secondary schools in Anambra State?

Table 2: Mean Summary of Respondents on the Factors Militating Against the Implementation of Government Policy Initiatives on Education for Sustainable Development in Public Secondary Schools in Anambra State(N=242)

S/N	Items	Mean	SD	Remks
9.	Policymakers do not prioritize education leading to insufficient funding for education	3.28	0.85	Agree
10.	Lack of awareness that results in little support for policies aimed at promoting compulsory basic education	3.30	0.77	Agree
11.	Weak institutional capacity such as the Ministry of Education makes government policy initiates unsuccessful	3.35	0.82	Agree
12.	Stakeholders' resistance to change contributes bring delays in the execution of some policies	3.23	0.76	Agree
13.	Linguistic barriers impede communication flow that affects the implementation of policies	3.40	0.88	Agree
14.	Global challenges such as economic crises divert attention away from enforcing education for sustainable development	3.32	0.80	Agree
15.	The absence of feedback loops prevents necessary adjustments to improve policy implementations	3.18	0.74	Agree
16.	Political instability in most villages hinders the implementation process	3.26	0.85	Agree
Cluster Mean		3.29		Agree

Data in Table 2 reveal that the respondents agree on the factors militating against the implementation of government policy initiatives on education for sustainable development in public secondary schools in Anambra State on items 9, 10, 11, 12, 13, 14, 15, 16 and 17 with mean ratings of 3.28, 3.30, 3.35, 3.23, 3.40, 3.32, 3.18 and 3.26 and standard deviations of 0.85, 0.77, 0.82, 0.76, 0.88, 0.80, 0.74 and 0.85 respectively. The cluster mean of 3.29 indicate that the items are among the factors militating against the implementation of government policy initiatives on education for sustainable development in public secondary schools in Anambra State.

Research Question 3

What are the perceived solutions to the problems militating against the implementation of government policy initiatives on education for sustainable development in public secondary schools in Anambra State?

Table 3: Mean Summary of Respondents on the Perceived Solutions to the Problems Militating Against the Implementation of Government Policy Initiatives on Education for Sustainable Development in Public Secondary Schools in Anambra State(N=242)

S/N	Items	Mean	SD	REMARKS
17.	Policymakers should prioritize education by providing sufficient funding for education	3.23	0.76	Agree
18.	Constant awareness that would result to improved support for policies aimed at promoting compulsory basic education	2.90	0.39	Agree
19.	Establishing partnership with local communities to foster collaborative approach to policy implementations	3.18	0.83	Agree
20.	Development of standardized guidelines to facilitate policy implementation across different schools	2.06	0.44	Disagree
21.	To update the curriculum to include topics related to sustainable development and social responsibility	3.29	0.96	Agree

22.	Giving Ministry of Education autonomy could enhance the success of government policy initiatives	3.57	0.97	Agree
23.	Providing specialized capacity building for teachers to effectively integrate sustainability principles into their teaching methods	2.40	0.41	Disagree
24.	To set up a robust system to evaluate the progress of sustainable education initiatives regularly, making data-driven decisions for improvement	3.26	0.79	Agree
Cluster Mean		2.98		Agree

Data in Table 3 reveal that the respondents agree on the perceived solutions to the problems militating against the implementation of government policy initiatives on education for sustainable development in public secondary schools in Anambra State on items 17, 18, 19, 21, 22, and 24 with mean ratings of 3.23, 2.90, 3.18, 3.29, 3.57 and 3.26 and standard deviations of 0.76, 0.39, 0.83, 0.96, 0.97 and 0.79 respectively. They also disagree on items 20 and 23 with mean ratings of 2.06 and 2.40 and standard deviations of 0.44 and 0.41. The cluster mean of 2.98 indicate that the items are among the perceived solutions to the problems militating against the implementation of government policy initiatives on education for sustainable development in public secondary schools in Anambra State.

Discussion of Findings

Findings on the extent principals perceive the implementation of government policy initiatives on education for sustainable development in public secondary schools in Anambra State revealed that principals perceive the implementation of government policy initiatives on education for sustainable development in public secondary schools in Anambra to a moderate extent. The findings are a result of respondents agreeing to the fact that the policy brings about useful living in the society, the government ensures that religion is not a barrier for education, schools offer diversified curriculum to cater for different talents, government ensures that students are trained in both science and technology and vocational skills necessary for economic development are implemented in every school. The findings are in consonance with the findings of Ayesha et al. (2019) who stated that the implementation of government policy initiatives on education for sustainable development is crucial for the long-term development and prosperity of a nation. He argues that such policies provide a framework for integrating sustainable practices and values into the education system, ensuring that students are equipped with the knowledge, skills, and attitudes necessary for sustainable living. Adedire et al. (2021) revealed that the government's effort to promote sustainable development through the integration of education policy initiatives into the curriculum of public secondary schools has not been effectively carried out.

Findings on the factors militating against the implementation of government policy initiatives on education for sustainable development in public secondary schools in Anambra State revealed that factors such as lack of awareness, weak institutional capacity, and stakeholders' resistance to change among others are contributing factors militating against the implementation of government policy initiatives on education for sustainable development in public secondary schools in Anambra State. The finding is a result of respondents agreeing to the fact that policymakers do not prioritize education leading to insufficient funding in education, lack of awareness that results in little support for policies aimed at promoting compulsory basic education, weak institutional capacity such as the Ministry of Education makes government policy initiatives unsuccessful, stakeholder resistance to change contributes to delay in execution of some policies, linguistic barriers impede communication flow that affect implementation of policies, global challenges such as economic crises divert attention away from enforcing education for sustainable development, absence of feedback loops prevent necessary adjustments to improve policy implementations and political instability in most villages hinder the implementation process. Agreeing with the findings, Ajulor (2018) stated that the government needs to devote more money to the education sector, curb corruption, ensure transparency and accountability in the sector and increase politicization of education ministry roles and level of involvement in the education delivery system. Mathana and Sang (2023) also revealed that finance and funding are influential factors in driving education policy towards achieving its objectives. However, though there may be funding, there is also financial corruption that setbacks the implementation of the policy initiatives.

Findings on the perceived solutions to the factors militating against the implementation of government policy initiatives on education for sustainable development in public secondary schools in Anambra State revealed that principals perceived solutions to the factors militating against the implementation of government policy initiatives on education for sustainable development in public secondary schools in Anambra State to a moderate extent. The findings are a result of respondents

agreeing to the fact that policymakers should prioritize education by providing sufficient funding for education; constant awareness that would result to improved support for policies aimed at promoting compulsory basic education; establishing partnership with local communities to foster collaborative approach to policy implementations; giving Ministry of Education autonomy could enhance the success of government policy initiatives; and setting up a robust system to evaluate the progress of sustainable education initiatives regularly, making data-driven decisions for improvement. The finding agrees with Ajulor (2018) that the government should allocate adequate funds and resources for the development and implementation of sustainable education programmes in schools. Mathana and Sang (2023) also revealed that finance and funding are influential factors in driving education policy towards achieving its objectives. Governments should demonstrate a commitment to sustainable development by allocating sufficient resources and support for the implementation of education policies.

Conclusion

Based on the findings of the study presented, analyzed and discussed, the study concluded that the implementation of government policy initiatives on education for sustainable development in public secondary schools in Anambra State is ongoing but impeded by challenges emanating from the schools, stakeholders' resistance, poor funding and economic downturn. Addressing these challenges will be crucial to ensuring the successful implementation of education policies aimed at sustainable development in the public secondary schools.

Recommendation

On the basis of the findings, the following recommendations were made:

1. To improve access to free education, it is crucial for the government to take proactive measures to remove barriers that hinder access to education. This can include addressing issues such as school fees, textbooks and other essential educational resources.
2. Government should prioritize education even during difficult times and explore innovative funding mechanisms. Governments should also collaborate with international organizations, NGOs, and other stakeholders to mobilize resources and implement strategies that mitigate the impact of global challenges on education.
3. Government through the Ministry of Education should always collect feedback and monitor outcomes to continuously improve policy design and implementation.

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**INTEGRATING CIVIC EDUCATION CURRICULUM CONTENTS IN
ADULT BASIC LITERACY PROGRAMME FOR GENDER FAIRNESS
IN ENUGU STATE**

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& Inemesit EssietUmofia (Ph.D)**

Abstract

The integration of civic education curriculum contents in adult basic literacy programme for gender fairness in Enugu State. The study was guided by two research questions. A descriptive survey research design was used for the study. The population of the study consist of 495 adult facilitators and 2496 adult learners in Enugu State. A stratified sampling technique was used to select 10% of the facilitator and adult learners giving rise to 50 adult facilitators and 250 adult learners as respondents for the study. A structured questionnaire was used to collect data for the study. The instrument was validated by three experts. Cronbach Alpha technique was used to establish the reliability before administering the instrument to the respondents. A grand Reliability of 0.82 was obtained. The findings, among others, were that integrating civic education curriculum contents in adult basic literacy programme for gender fairness in Enugu state includes campaign against discrimination of women; role of women in formal and informal paid employment sector. Also, high level of gender discrimination in the students' environment and paucity of financial resources are some of the factors challenging civic education curriculum for the promotion of gender fairness. The study recommended that civic education curriculum content should be integrated in adult basic literacy programme for gender fairness. Government should make laws that are gender friendly.

Keywords: Adult Basic literacy; Civic Education; Curriculum; and Gender Fairness.

Introduction

Gender is used to categorize humans as male or female based on their biological sex. This is an essential part of human living as it serves as a means of differentiating between male and female members of the society and the roles assigned to each member of the society. Gender refers to social and cultural roles, behaviours, expectations and identities that society assign to individuals based on their biological sex (Rolleri, 2012). Hence, gender is basically the societal understanding of what it means to be male or female. However, there is always a problem when the great diversity of characteristics inherent in both male and female members of the society is undermined due to issue of gender inequality. Gender inequality refers to a situation whereby a member of the society is unable to benefit from a right or opportunity because of his or her gender (Richardson & Brown, 2016). Gender inequality result in serious social problems such as poverty, increase in violence and depression among others. Hence, emphasizing the need for promoting gender fairness in the society, especially in the education system.

Gender fairness involves affording all individual the full rights and opportunities they deserve irrespective of the individual being a male or female. Gender fairness implies that male and female members of the society should have equal conditions, treatment and opportunities for realizing their full potential, human rights and dignity, and for contributing to and benefitting from economic, social, cultural and political development (United Nations International Children's Emergency Fund (UNICEF), 2017). This implies that gender fairness is the situation whereby the allocation of resources, rights, values and opportunities to male and female members of the society is done fairly and independent of their gender. Gender fairness, therefore contributes to sustainable development as it helps to prevent segregation and violence against women or girls and allows the female members of the society to achieve their full potential towards contributing to educational, socio-economic and political development. Based on this, teaching of morals, values, and social norms has been integrated into different school subjects such as civic education so as to improve gender fairness in the society.

Civic education could help individuals to see other members of the society whether male or female as having crucial roles to play for smooth running of the society. Civic education is the totality of learning, instruction, equipping, which citizens need to be able to play his/her role, discharge his/her responsibilities, know his/her rights, understand his/her country-the constitution, the politics, the ethics, the religious, the ethos and the ideals that make the national geo-political entity (Ogene, 2014). Ogene also stated that civic education places an individual in a position where he or she would not distort the lives of others or discriminate against anyone based on their gender. This view implies that through civic education study, learners could recognize their own national conditions, cultivate a love towards the country, respect the country's sovereignty and create a spirit of unity among diverse races and opposite gender.

Furthermore, through civic education, the learners are equipped with democratic principles such as equality and gender fairness. Adeyemi (2018) stated that civic education in Nigeria is the educational programme designed to equip learners with democratic skills and values needed to function effectively in participatory democracy towards civilization. Hence, it is believed that civic education in Nigeria is capable of inducing the required values, attitudes and skills that will enable the citizens to live patriotic and democratic lives which involves respecting the rights of others not minding their gender. Therefore, for the purpose of the study, civic education is the education designed to equip citizens with good understanding of their rights, duties and obligations which will develop them into responsible members of the society. More so, civic education curriculum if effectively implemented would improve citizens' commitment to democratic values and thereby promoting gender fairness.

Curriculum is a vehicle for achieving the educational goals or aspirations of the society as it involves the description of lessons and academic contents taught in a school or in a specific programme. According to Adeyemi (2018), curriculum content is the knowledge and skills students are expected to learn, which includes the learning objectives they are expected to meet; the units and lessons that instructors facilitate; the assignments and projects given to learners; the books, materials, videos, presentations, and readings used in a course; and the tests, assessments, and other methods used to evaluate learners learning. This definition implies that curriculum represent contents, activities and related experience/guidance given to learners by instructors of a particular learning programme. Therefore, for the purpose of this study, civic education curriculum refers to the description of the knowledge and skills civic education learners are expected to learn in educational programmes such as adult basic literacy programme.

Adult basic literacy programme is designed to provide educational opportunities to adults who have not had the opportunity to complete their formal education. Adult basic literacy refers to the foundational skills and abilities that adults need to effectively function in the society (Madu & Ewelum, 2017). The authors further stated that adult basic literacy programmes encompass initiatives which equip adults with the ability to read, write and comprehend written information as well as basic numerical skills such as understanding numbers, calculations and measurements. These programmes aim to help adults acquire essential knowledge and skills that are necessary for everyday life, further education, employment, and active participation in the community (Naboth & Agi, 2013). The content of an adult basic literacy programme varies depending on the specific needs and goals of the learners. Civic education contents of adult basic literacy programme should be designed to include educating learners on human rights and gender fairness.

Civic education plays a crucial role in the society as it helps individuals develop a deeper understanding of their rights, responsibilities, and active participation in the society. Civic education curriculum contents could aid in the development and transformation of learners in Nigeria into effective and responsible citizens who respect the rights of others irrespective of their gender (Ogene, 2014). However, to ensure that civic education is effective towards the promotion of gender fairness, it is necessary that civic education curriculum content is designed to adequately equip learners with the right attitude and societal values. It is against this backdrop that this study seeks to investigate the integration of civic education curriculum contents in adult basic literacy programme for promoting gender fairness in Enugu State.

The situation of gender fairness in Enugu State, like in many areas of Nigeria, reflects a combination of progress and ongoing challenges. While there have been notable efforts to promote gender equality and women's empowerment, traditional patriarchal norms and practices continue to shape societal attitudes and behaviors. In terms of political representation, women are underrepresented at both the state and local government levels in Enugu State (Asogwa, 2018). This lack of representation hinders women's participation and influence in decision-making processes. Additionally, there are persistent socio-cultural barriers that limit women's access to education,

healthcare, economic opportunities, and leadership positions. More so, gender-based violence is another significant concern in Enugu State. Many women and girls experience various forms of violence, including domestic violence, sexual assault, and harmful traditional practices such as female genital mutilation (Asogwa, 2018). These acts of violence not only cause physical and psychological harm but also reinforce gender inequality and discrimination.

However, it is important to note that efforts to promote gender fairness and equality are being made in Enugu State. Several organizations, civil society groups, and government initiatives are working towards addressing these challenges. These initiatives focus on advocating for women's rights, providing legal support, and creating awareness about gender-based discrimination and violence. Despite progress towards gender fairness in Enugu State, there remains a significant gap in the understanding and implementation of gender fairness in civic education. This gap perpetuates gender stereotypes, discrimination, and unequal representation in various societal institutions. Consequently, there is a need to address this issue by developing comprehensive civic education content that promotes gender fairness and empowers individuals to challenge gender-based discrimination. Therefore, the problem of this study is the integrating of civic education curriculum contents in adult basic literacy programme for promoting gender fairness in Enugu State.

Purpose of the Study

The study investigated the integration of civic education curriculum contents in adult basic literacy programme for promoting gender fairness in Enugu State. Specifically, the study sought to:

1. ascertain the civic education curriculum contents to be integrated in adult basic literacy programme for gender fairness in Enugu state;
2. determine factors challenging civic education curriculum content to be integrated in adult basic literacy programme for gender fairness in Enugu state.

Research Questions

The study was guided by these research questions:

1. What are the civic education curriculum contents to be integrated in adult basic literacy programme for gender fairness in Enugu state?
2. What are the factors challenging civic education curriculum content to be integrated in adult basic literacy programme for gender fairness in Enugu state?

Methodology

A descriptive survey research design was used for the study. A descriptive research design is appropriate for the study as the researchers sought to gather information from respondents in Udenu Local Government Area so as to investigate integration of civic education curriculum contents in adult basic literacy programme for gender fairness in Enugu State. This is in line with Nworgu (2015) who stated that descriptive survey study attempts to collect data from a given population, and describe in a systematic manner the characteristics, features or facts about the given population.

This study was carried out in Enugu State, Nigeria. Enugu State is one of the states in South-East Nigeria. Enugu State bounds with Abia State and Imo State to the South, Ebonyi State to the East, Benue State to the Northwest and Anambra State to the West. The people are predominantly Igbo with strong attachment to male children as the family name bearers. The state has a various adult literacy centers. The population of the study is 2823 consisting 495 adult facilitators and 2328 adult learners in Enugu State. Simple random sampling technique was used to select 50 adult facilitators and 250 adult respondents for the study. The researchers structured questionnaire titled "Integrating Civic Education Curriculum Contents in adult literacy programme for Gender Fairness Questionnaire (ICECCABLPGFQ)" was face validated by three experts. Cronbach alpha technique was used to determine the internal consistency of the questionnaire items and the reliability coefficient of 0.79 and 0.84 and a total grand of 0.82 was obtained. 300 copies of the questionnaire were distributed and collected by the researchers. Hence, from 300 questionnaire administered, 289 were rightly completed accounting for 96.3 % return rate and was therefore used for data analysis. The weighted mean was used to answer the research questions. The criterion mean of the scale of the items is 2.50. Any item with a weighted mean value of 2.50 and above was considered accepted while any weighted mean of less than 2.50 was considered not accepted.

Results

Research Question: What are the civic education curriculum contents to be integrated in adult basic literacy programme for gender fairness in Enugu state?

Table 1: Mean and standard deviation of the ratings of respondents on the civic education curriculum contents to be integrated in adult basic literacy programme for gender fairness in Enugu state.

S/N	Item Statement	Mean	SD.	Decision
1	Fundamental human rights and freedoms.	2.74	.62	Agree
2	The role of the judiciary and the legal system	2.52	.65	Agree
3	Campaign against discrimination of women	2.63	.78	Agree
4	Role of women in formal and informal paid employment sector	2.71	.69	Agree
5	Consequences of violence against women such as battering, sexual abuse and trafficking	2.54	.85	Agree
6	Social change towards degrading widowhood practices such as shaving of hair, prolonged mourning period among others	2.82	.80	Agree
7	Role of women in elections and voting processes	3.16	.76	Agree
8	Grassroots movements and civic activism	2.88	.75	Agree

Table 1 shows the mean rating of respondents on the integrating civic education curriculum contents in adult basic literacy programme for gender fairness in Enugu state. The table revealed that the mean rating of respondents on item 1 to 8 is between 2.52 to 3.16. The implication of this is that the respondents agreed that integrating civic education curriculum contents in adult basic literacy programme for gender fairness in Enugu state includes; fundamental human rights and freedoms; the role of the judiciary and the legal system; campaign against discrimination of women; role of women in formal and informal paid employment sector; consequences of violence against women such as battering, sexual abuse and trafficking; role of women in elections and voting processes; social change towards degrading widowhood practices such as shaving of hair, prolonged mourning period among others and grassroots movements and civic activism.

These findings explain why Adeyemi, (2018) stated that civic education in Nigeria is designed to equip students with the democratic skills and values needed to function effectively in participatory democracy towards civilization. Civic education has the potential for motivating members of the society to take active part in the democratic system of the society, to use their rights and to discharge their responsibilities with the necessary knowledge and skills. Similarly, Nwaubani and Azuh (2014) revealed that civic education is capable of enhancing the citizens' comprehension of the ideals of democracy and a willful commitment to democratic values and principles in a very realistic manner. Therefore, to a high extent, civic education curriculum contents promotes gender fairness among members of the society.

Research Question Two:What are the factors challenging civic education curriculum content to be integrated in adult basic literacy programme for gender fairness in Enugu state?

Table 2:Mean and standard deviation of the ratings of respondents on the factors challenging civic education curriculum content to be integration in basic literacy programme for gender fairness in Enugu State.

S/N	Item Statement	Mean	SD.	Decision
1	Lack of practical assessment of civic education learners	2.54	.85	Agree
2	Lack of commitment on the part of some civic education facilitators towards gender fairness	2.72	.68	Agree
3	High level of inequality witnessed in educational institutions	2.53	.70	Agree
4	Inadequate instructional materials	2.71	.69	Agree
5	Lack of role model facilitators	2.82	.72	Agree
6	Shortage of qualified Civic Education facilitators	2.78	.82	Agree
7	High level of gender discrimination in the learners' environment	2.94	.69	Agree
8	Paucity of financial resources	3.10	.78	Agree

Table 1 shows the mean rating of respondents on the factors challenging civic education curriculum content to be integrated in basic literacy programme for gender fairness in Enugu state. The table revealed that the mean rating of respondents on item 1 to 8 is between 2.53 to 3.10. The

implication of this is that the respondents agreed that the factors challenging civic education curriculum content to be integrated in basic literacy for gender fairness in Enugu state include lack of practical assessment of civic education students; lack of commitment on the part of some civic education teachers towards gender fairness; high level of inequality witnessed in schools; inadequate teaching aids/teaching materials; lack of role model teachers; shortage of qualified Civic Education teachers; high level of gender discrimination in the students' environment and paucity of financial resources.

These findings explain why Magasu, Muleya and Mweemba(2020) stated that one of the biggest problems with civic education is trying to find a connection between what is learnt in class and involving learners in practical strategies. The authors stated that there is lack of hands on approach combining theory and practice of civic education in the education system. That link seems to be missing in civic education lessons in the present study area. Endalcachew (2016) also stated that it is common to see civic education teachers who are poor role models in the area of gender fairness. This situation negatively affects the proper role that civic education teachers should play in effectively improving the attitude of students towards gender fairness. This is so because in order to effectively help to develop students' understanding and improve their attitude towards gender fairness, the teacher should take the lead in displaying the core values of gender fairness.

Conclusion

Civic education is the education designed to equip citizens with good understanding of their rights, duties and obligations which will develop them into responsible members of the society. Integrating civic education curriculum contents in adult basic literacy programme which promotes gender fairness in Enugu state includes; fundamental human rights and freedoms; the role of the judiciary and the legal system; campaign against discrimination of women; role of women in formal and informal paid employment sector; consequences of violence against women such as battering, sexual abuse and trafficking among others. However, the factors challenging civic education curriculum in the promotion of gender fairness include lack of practical assessment of civic education students; inadequate teaching aids/teaching materials; lack of role model teachers; shortage of qualified Civic Education teachers; high level of gender discrimination in the students' environment and paucity of financial resources among others.

Recommendations

Based on the findings of the study, the following recommendations were made:

1. The government should promote the training of civic education facilitators towards the democratic principle of gender fairness. This could be done through in-service training programmes such as workshops, conferences and seminars. These programmes will improve the facilitators' effectiveness in promoting gender fairness through the integration of civic education curriculum contents in basic literacy programme,
2. Any staff of adult education institute or any educational institute involved in any form of gender discrimination should be punished severely. This will help the learners to understand that any form of gender discrimination is not allowed. Taking this step will reduce the rate of gender discrimination in the learners' environment and improve their attitude towards gender fairness.
3. The government should promote the training of facilitators of adult literacy programme towards the democratic principle of gender fairness. This could be done through in-service training programmes such as workshops, conferences and seminars. These programmes will improve the facilitators' effectiveness in promoting gender fairness through the integration of civic education curriculum contents in basic literacy programme in Enugu state.

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**ENTREPRENEURSHIP EDUCATION NEEDS OF OUT-OF-SCHOOL
YOUTHS FOR EMPLOYMENT IN NSUKKA
LOCAL GOVERNMENT AREA**

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Abstract

This study focused on entrepreneurship education needs of out-of-school youths for employment in Nsukka Local Government. The study was guided by two purposes and two research questions. Descriptive survey research design was adopted for the study. The population of the study comprised 3,511 registered members of the 28 youth organizations in Nsukka LGA. Multi-stage sampling technique was used to select 288 youths from fourteen youth organization. Instrument used for data collection was a questionnaire titled Entrepreneurship Education Needs of Out-of-school Youths for Employment (EENOYE). The instrument was face validated by three experts. The reliability coefficient values were obtained using Cronbach Alpha Statistical tool resulting to the overall coefficient value of 0.80. Findings revealed that learning to read correctly, write legibly, speak fluently and becoming self-reliant, among others are the functional education needs of out-of-school youths in Nsukka LGA while hair dressing skill, fashion designing, automobile repairs, among others were the skill acquisition needs of out of school youths in the study area. Based on the findings, some recommendations were made, that government and NGOs should promote every activity that leads to skill acquisition which will also make the youths employable.

Introduction

Entrepreneurship education is very essential for the creation of employment especially for out of school youths. Fayomi, Adepoju and Ayo (2015) see education as a purposive, conscious or unconscious, psychological, sociological, scientific and philosophical process, which brings about the development of the individual to the fullest and also the maximum development of society in such a way that both enjoy maximum happiness and prosperity. Leonard, Collins, and Felix (2014) defined education as the development of the cognitive, affective and psychomotor domain and abilities of an individual for optimal function and performance in the society. Leonard, Collins, and Felix opined that the essence of education is for optimal performance in the society. Furthermore, Jaja (2013) added that education is the process of acquiring knowledge, skills and other capabilities. These skills can be acquired through entrepreneurship education.

Entrepreneurship education is not just about acquiring skill but acquiring knowledge and driving towards enterprise in skills that enhance personal livelihood through ensuring business startups, enhancing employment opportunities, and promoting economic development and growth. Emeh, and Okechukwu (2012) affirmed that the success of entrepreneurship education depends on an entrepreneurial ability to identify opportunity in the environment, take initiatives towards desirable change and ensure value-based solution in the market place. Onyeizugbe, Orogbu and Oyigbo (2015), observed that entrepreneurs successfully run innovative enterprises, nurture them to grow and sustain them, with a view to achieving broad socio-economic development goals. In essence, entrepreneurs through entrepreneurial development such as in skill acquisition create job opportunities or become self-employed. Entrepreneurship education is very important in our present day to day activities. In addition, Gundry, Ofstein, and Kickul (2014) stated that other importance of entrepreneurship education provides training to individuals with the ability to recognize commercial opportunities, self-esteem, knowledge and skills to act on them. It ensures instruction in opportunity recognition, commercializing a concept, managing resources, and initiating a business venture. Entrepreneurship education is a veritable tool towards reducing unemployment.

Unemployment is still one of the hardest problems to solve in the modern world, and the Nigerian economy is not exempted. The menace of unemployment has eaten deep into the Nigerian economy because the youth who are the major workforce are the people mostly affected by it. According to Odia (2016) the unemployment rate of Nigeria was put at about 19.7% above world average of 14.2% by the World Bank, with 41.6% unemployment rate reported for youth in the 18 to

24 years age bracket. According to Lemo (2018), given the high rate of youth unemployment in Nigeria, entrepreneurship education is still a practical way for people to work for themselves, alleviate poverty and unemployment, and empower young people to start their own businesses, follow their dreams, and contribute to overall productivity and national economic growth and development. Consequently, developing entrepreneurial skills has become a crucial safety net for young self-employment and economic development. Entrepreneurship education is a remedy to the increasing rate of unemployment. As it stands now, unemployment rate in Nigeria seems to be more on the youths.

Youth comprises of persons between the ages of 18-35 years who are citizens of the federal republic of Nigeria (Nigeria Youth Development Policy, 2015). Furthermore, it is a period of transition from the dependence of childhood to adulthood independence and awareness of interdependence as members of a community. Out-of-school youths also include those who dropped out of the university. The entrepreneurship education needs of out-of-school youths according to Paul (2005) include: to offer functional education for self-employment and reliant; creativity and innovation; training on risk management; and skill acquisition among others. During the interview with the youths, the researchers realized that the most entrepreneurship needs for out of school youths for employment requires skills. Therefore, in this study, the researchers looked at the entrepreneurship education needs of out-of-school youths for employment in Nsukka LGA to include: functional education for self-employment and reliant; and skill acquisition.

Functional education is the kind of education that provides the learner with the information and abilities required to carry out useful tasks. Functional education is defined by Akumah (2008) as education that places a greater emphasis on the capacity to do productive tasks. It is a type of education that prioritizes application above theory. Nigerian system of education has not been functional because too much emphasis has been placed on theoretical and academic knowledge. There is also undue emphasis on the possession of certificates instead of on what one can do that is innovativeness.

Skill acquisition is another entrepreneurship need of out-of-school youths. Skill acquisition can lead to job creation, reduction in poverty and social vices such as robbery and kidnapping. Supporting the above, Isaac (2011) observed that skills acquisition has been described by many as the recipe for eradicating extreme poverty and hunger by creating avenues for employment, thereby creating an avenue for jobs and wealth creation while instilling self-sufficiency and reliance. Gumbari (2009) further opined that “skills acquisition is the key in the fight for the elimination of hunger and poverty, reduction or elimination of joblessness in the society and reduction of crime through effective engagement of youths. Skills acquisition is the ability to learn a skill, which can be intellectual such as learning to listen, speak, read and write or manual such as learning to build or make something. Skills acquisition has been described by many as the recipe for eradicating extreme poverty and hunger, thereby creating avenue for jobs and wealth creation.

Governments develop policies and frameworks that promote entrepreneurship as a viable option for addressing unemployment. These policies include provisions for easier business registration, tax incentives for startups, access to finance, and supportive regulations for small and medium-sized enterprises (SMEs), establishing vocational training centers, and microfinance programs, loan guarantee schemes, and venture capital funds to provide entrepreneurs with the necessary capital to start or expand their businesses and hiring forest guards among others. Thus, various sectors of society, including government, private business, civic associations and even church groups have allocated a substantial part of their resources for entrepreneurship development and promotion of small-scale enterprises (Awogbenle & Iwuamadi, 2010). NGOs focused on supporting social entrepreneurship, which addresses social and environmental challenges while generating employment opportunities. These organizations provide training, funding, and mentorship to out of school youths with the aim to create positive social impact through businesses. They offer small loans, savings programs, and financial literacy training to help individuals start or expand their businesses. By promoting financial inclusion, NGOs enable youths to access capital and resources that are essential for business development. Despite all these efforts, it seems that youth unemployment and other social vices are still on the rise. The prevalence of the social vices including robbery, prostitution, advance fee fraud (419 or yahoo/yahoo plus) and theft among others. There is high rate of unemployment among the youths in Nsukka Local Government especially among the out of school youths. Most of the out of school unemployed youths are not employable because they lack the required skills, hence the need for entrepreneurship education.

Nigeria as a whole has an alarmingly high proportion of youth unemployment, especially out of school youths. The rise in robbery, theft, prostitution, and advance fee fraud in Nsukka LGA is on

the rise due to unemployment. The education system and vocational training programs may not adequately equip youth with the relevant skills, leaving them ill-prepared for the job market. Additionally, there is often a mismatch between the skills acquired and the skills demanded by employers, exacerbating the unemployment problem. Therefore, the problem of this study is to assess the entrepreneurship education needs of out of school youths in Nsukka Local Government Area of Enugu State.

The purpose of the study is to assess the entrepreneurship education needs of out of school youths for employment in Nsukka Local Government Area.

Research Questions

The following research questions guided the study:

1. What are the functional education needs of out of school youths for employment in Nsukka Local Government Area?
2. What are the skill acquisition needs of out of school youths for employment in Nsukka Local Government Area?

Methodology

This study adopted descriptive survey design. Descriptive survey aims at collecting data on and describing in a systematic manner the characteristics, features or facts about a given population (Nworgu, 2015). The study was conducted in Nsukka Local Government Area of Enugu State. The population of the study comprise of 3,511 registered members of the 28 youth organizations in Nsukka LGA of Enugu State. The sample size adopted for the study was 288. The sampling technique adopted was multi-stage sampling technique. In the first stage, the researcher used simple random sampling to select fourteen (14) youth organizations out of the twenty-eight youth organizations giving a total of 720 youths. In the second stage the researcher used Proportionate Stratified sampling technique to draw 40% from each of the selected youth organization. Data was collected with the researchers designed instrument titled Entrepreneurship Education Needs of Out-of-school Youths for Employment (EENOYE). The questionnaire was designed basically for this study by the researcher in line with the two (2) research questions guiding the study. The instrument for data collection was validated by three experts from departments of Adult Education and Extra-Mural Studies and Measurement and Evaluation unit of Science Education from Faculty of Education, University of Nigeria Nsukka. The Cronbach Alpha Statistical tool was used to determine the internal consistency and overall reliability coefficient of 0.76 and 0.82 was obtained. The data collected were analysed using SPSS version 2.0. The research questions were answered using weighted mean and standard deviation Any mean rating of 2.50 and above was considered high and accepted while below 2.50 was considered low and otherwise not accepted

Results

Table 1: Functional Education Needs of out of School Youths for Employment in Nsukka LGA.

S/N	Item Statement	SA	A	D	SD	No. of Responses	Total Score	Mean	Decision
1	Learn how to read correctly	151	87	33	17	288	948	3.2	Agreed
	Learn how to write legibly	157	81	17	33	288	938	3.2	Agreed
2	Learn how to speak fluently	153	37	87	11	288	906	3.1	Agreed
3	Acquire effective communication skill	100	90	81	16	288	848	2.9	Agreed
4	Learn how to become self-reliant	77	111	61	39	288	802	2.7	Agreed
5	Acquire the skill of how to access information correctly	157	81	17	33	288	938	3.2	Agreed
6	Acquire the ability to solve mathematical problems	151	87	33	17	288	948	3.2	Agreed
	Grand Mean							3.0	Agreed

Table 1 presents the mean opinions of youths on functional education needs of out of school youths in Nsukka Local Government Area. From the result, items that have mean scores above the criterion mean of 2.50 indicating that to read correctly, write legibly, acquire skill to access information correctly, acquire the ability to solve mathematical problems, to speak fluently, acquire effective

communication skill and to become self-reliant are accepted as the functional education needs of out of school youths in Nsukka Local Government Area.

Table 2: Skill acquisition needs of out of school youths in Nsukka Local Government Area.

SN	Item Statement	SA	A	D	SD	No. of Resp	Total Score	Mean	Decision
7	Hair dressing skills	94	96	86	11	288	847	2.7	Agreed
8	Fashion and designing	97	93	81	16	288	845	2.9	Agreed
9	Automobile repairs	101	89	56	11	288	854	2.9	Agreed
10	Hardware engineering	84	109	56	39	288	814	2.8	Agreed
11	Catering services	72	113	69	34	288	799	2.7	Agreed
12	Painting	102	88	81	16	288	850	2.9	Agreed
13	Software development	89	51	112	36	288	769	2.6	Agreed
14	Web application development	101	89	96	10	288	846	2.9	Agreed
15	Video editing	157	71	27	33	288	928	3.2	Agreed
16	Graphics designs	116	72	69	31	288	849	2.8	Agreed
Grand Mean								2.9	Agreed

Table 2 presents the mean opinions on the skill acquisition needs of out of school youths in Nsukka Local Government Area. From the data presented on the table, it is observed that the key rated items with overall mean of 2.9 indicating that hair dressing skill, fashion designing, Hardware engineering, Catering services, Painting, Software development, Web application development, Video editing and graphics design are accepted with the grand mean of 2.9 as the skill acquisition needs of out of school youths in Nsukka Local Government Area.

Discussion

The findings from the analysis of research question one revealed that learning how to read correctly, write legibly, speak fluently, possessing effective communication skill, and becoming self-reliant, accessing information correctly, and the ability to solve mathematical problems were accepted as the functional education needs of out of school youths in Nsukka Local Government Area with the cumulative mean value computed as 3.0. This is in line with the view of Nwaka (2014) which states that functional education is that education that is relevant to the current and anticipated needs, problems and aspirations of the individual learner, which is based on the occurrence and changes in the learner's cultural milieu. Rintaningrum (2009) stated that the functional education needs of out of school adults self-development, personal branding, professional development, schooling, and national development.

The findings further revealed that hair dressing skill, fashion designing, automobile repairs, hardware engineering, catering services and painting were accepted as the skill acquisition needs of out of school youths in Nsukka Local Government Area. This agrees with the view of Development Education Center (DEC, 2015) which states that skill acquisition include computer literacy, fashion & designing, cosmetology, catering and hotel management, bag/shoe making, hair dressing, and bead making among others. Also, Chron (2021) stated that the skill acquisition needs of out of school youths involves raising capital for starting up boosting existing business and for starting new ones, strategic planning, this implies being good at starting a business and putting all the effort to ensure the survival of the business and crisis management. This entails the ability to put in structures in order to handle unforeseen or unpleasant circumstance.

Conclusion

Based on the findings of the study, the researchers conclude that learning how to read correctly, write legibly, speak fluently, effective communication skill, and becoming self-reliant, accessing information correctly, and ability to solve mathematical problems are the functional education needs of out of school youths in Nsukka Local Government Area while hair dressing skill, fashion designing, automobile repairs, hardware engineering, catering services and painting are the skill acquisition needs of out of school youths.

Recommendations

The following recommendations were made based on the findings of this study:

1. The government should promote functional education in Nigerian educational system especially in rural communities. This will help to empower the youths with the ability to learn how to read, write and solve mathematical problems. This will also make the youths employable.

2. The government and NGOs should promote every activity that leads to skill acquisition which will also make the youths employable. This will help the youths especially out of school youths to be trained on various skills including hair dressing skill, fashion designing, automobile repairs, hardware engineering, catering services, and painting.

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**PROVISIONAL NEEDS OF HEALTH FACILITIES FOR
PROMOTING HEALTH AND SAFETY OF PRESCHOOLERS IN
NSUKKA EDUCATION ZONE, ENUGU STATE**

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Abstract

This study is an investigation of the provisional needs of health facilities for promoting healthy and safety of preschoolers in Nsukka educational zone, Enugu state. Three research questions guided the study. The descriptive survey research design was employed in the study. The population comprised all the 35 daycare/primary school head teachers in Nsukka Local Government Area of State. The entire population was considered because of the manageable population size. Instrument for data collection was a questionnaire developed by the researcher, titled: “Healthy Child-Friendly School Environment Questionnaire (HCFSEQ)” made up of 31 items. The research instrument was validated by three experts in Faculty of Education, UNN and the reliability of the instrument was ascertained through a pilot-test on 20 head teachers of daycare/primary school from 15 schools in Igbo-Eze North LGA of Enugu State. Data collected were analyzed using mean scores and standard deviation to answer the research questions. The findings of this study revealed among others that there were no adequate provisions for school health facilities as regards the provisions of school clinics, sanitary, sports and recreational health facilities for promoting a healthy child and the safety of preschoolers in Nsukka LGA of State. From the findings of the study, recommendations were also proffered that Enugu State Government in collaboration with the Enugu State Universal Basic Education Board (ENSUBEB) should make adequate provision for health facilities like school clinics, sanitary, sports and recreational health facilities for promoting a healthy and safety of preschool children in primary schools in Enugu State.

Keywords: Consideration, Healthy, safety, preschoolers, School, Environment, Primary Schools,

Introduction

In the past, the focus has been on promoting children’s academic performances in the primary schools in Nigeria and Enugu State inclusive. Attention has been paid on children academic achievement and excellence without giving much consideration to children’s health needs and services in the preschoolers and primary schools school at large. Many of the teachers and head teachers in Enugu State pay attention to only the teaching and learning activities in the primary schools without giving preferences to children’s health conditions and needs. Education on the other hand is encompassing which develops children personality to the fullest for their effectiveness in the society and full participation in socio-economic development of the country. Given the basic responsibilities and goals of the preschoolers/primary education system to develop and inculcate great potentials into the learners, it is therefore, important the children health needs and safety are taken into considerations.

Good health they say breeds sustainable development in the society and when our children or young ones and youth are in sound health, then can education impact positively in their lives. Without good health, the child will be weak to carry out any education task given to him or her in the school. Supporting this statement, Fletcher and Dauda (2011) stressed that health is usually something hidden, which only comes to the fore when it is not given. When one is sick, the loss of health is evident. For this reason, the preschoolers educational system and relevant schools should make provisions for adequate health facilities in order to promote a healthy child-friendly school environment. Health can be described as a condition or quality of the human organism expressing the adequate functioning of the organism in given conditions, genetic or environmental (Rai, 2016). Rai (2016) further described health as an “absence of disease” which relatively implies the absence of pain and discomfort and a continuous adaptation and adjustment to the environment to ensure optimal function. Health is a sound

mind in a sound body, in a sound family, in a sound environment. All sectors of society like agriculture, animal husbandry, food, industry, education, housing, public works, communication and other sectors have an effect on health (Rai, 2016).

Health as defined in the Constitution of the World Health Organization (WHO, 1948) as cited by Svalastog, Donev, Kristoffersen and Gajović (2017) is a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity. This definition of WHO looks at health from the angle of physical, mental health and social welfare of individuals which are integral components of the overall health. From the above definitions, it can be deduced that health is something which goes beyond physical considerations which can be viewed in its psycho-somatic entirety. Health is not limited to the person as an individual, but is also expressed in the person's relationship with the surrounding world. Health is more than absence of diseases and it is understood in terms of (subjectively-experienced) well-being. Therefore, being healthy is a total state of being completely sound in good or positive health conditions. The state of positive health implies the notion of perfect functioning of the body and mind which includes three aspects of biological, psychological and social wellbeing of an individual (Rai, 2016). A healthy child friendly school environment therefore can be described as an environment that ensures and caters for the health and needs of the child so as to enable the child develop his potentials and personality to the fullest.

A healthy child friendly school environment as indicated by the United Nations International Children's Emergency Funds (UNICEF, 2012) includes learning environment that ensures a healthy, hygienic, and safe learning environment, with adequate water and sanitation facilities and healthy classrooms, healthy policies and practices (e.g., a school free of drugs, corporal punishment, and harassment), and the provision of health services such as nutritional supplementation and counseling; provides life skills-based health education; promotes both the physical and the psycho-socio-emotional health of teachers and learners, helps to defend and protect all children from abuse and harm; and provides positive experiences for children. Besides child friendly schools are schools aimed to develop a learning environment in which children are motivated and able to learn. Staff members are friendly and welcoming to children and attend to all their health and safety needs. In such schools all aspects of the physical, mental, social, emotional and vocational life of cycle children are regarded and highly developed.

A child-friendly school should provide high quality education, and the learning processes have to be appropriate for every child's level of development, learning style, and abilities. The learning methods have to be cooperative, active, and democratic. Such schools are inclusive, healthy and protective for all children. A healthy child friendly school ensures every child an environment that is physically safe, emotionally secure and psychologically enabling. The school environment is therefore broadly characterized by its personnel, facilities, classrooms, school-based health supports and disciplinary policies and practices. It sets the stage for the external factors that affect students. All these must be well attended to in order to build a healthy child friendly school. A healthy child-friendly school (CFS) environment must therefore, work in the best interest of the child by providing adequate health facilities for children in the school. The aim of healthy child friendly school environment is the provision of safe and inclusive learning, working and living conditions that optimize the organization of day-to-day experiences which influence the emotional, physical and social health of learners as well as other members of the school community so that maximum benefit from education can be achieved. A child-friendly healthy school environment provides safe and healthy physical and aesthetic surroundings and a sound psychosocial climate and culture that are conducive for learning (Federal Ministry of Education - FME, 2006).

One of the key principles of the child-friendly school as highlighted by Çobanoğlu, Ayvaz-Tuncel and Ordu (2018) is to provide a safe, healthy and protective environment away from violence, injury, abuse and neglect while guaranteeing that the discipline practices at school are for the sake of the child. Moreover, children should be able to reach best possible health care services. This kind of learning environment promotes the physical and psychological health of all children. A healthy child-friendly school environment depicts a conducive learning environment with adequate health facilities or basic amenities like boreholes and water points, sickbay or clinics within the school, well equipped First Aid box, adequate toilet facilities and toiletries, scale for monitoring growth, sports equipment and recreational facilities, good cafeteria or food vendors, among others, which are basic necessities provided for healthy living in the school environment. The Federal Government in response to solve the problems associated with children's health challenges and needs through the promotion of a healthy school environment; a National School Health Policy (NSHP) was established. According to the Federal Ministry of Education (FME, 2006), the goals of the NSHP are to enhance the quality of health in the school community and to create an enabling environment for inter-sectorial partnership in

the promotion of child friendly school environment for teaching, learning, and health development. This will involve the development of appropriate preventive and curative services for school children and school personnel, the improvement of environmental sanitation, and the promotion of health education in all schools. The NSHP is currently implemented in primary and secondary schools in the country by instituting School Health Programme (SHP).

School Health Programme is defined as the totality of projects and activities in a school environment, which are designed to protect and promote the health and development of the school community. The objectives of the SHP are to obtain a rapid and sustained improvement in the health of school children, to ensure that children from preschool age to adolescence are in optimum health at all times so that they can attain their physical and intellectual potential, as well as to receive maximal moral and emotional benefits from health providers, teachers, and the school environment (Federal Ministry of Education - FME, 2006). Furthermore, to ensure that the Nigerian schools comply with the National Health Policy, the Federal Republic of Nigeria (2013) under section 8 of the National Policy on Education (NPE) mandated school administrators and proprietors to provide health facilities and services for their institutions. However, health and other nutritional services that shall be made available in the Nigerian schools to solve the health challenges of children in school coupled with promoting effective health practices and maintain good health culture in schools include; provision of school meals and incentives, school garden, sickbay/school health clinics within the school or a cluster of schools in the community, child friendly facilities (separate toilets for male and female), water points within the school compound for health and sanitation activities, well equipped First Aid Box for emergency care, scale for monitoring growth, and sports and recreational facilities (FRN, 2013).

All these services if well attended to and provided in the school sought to promote a preschoolers s-friendly school environment. However, with the poor conditions of many primary schools in Nsukka LGA Of Enugu State which have deteriorated to a point where the primary school pupils and preschoolchildren's health are endangered, this situation in Enugu State has therefore warranted the researchers to conduct the present study in order to showcase the need for the provision of health facilities for promoting preschoolers'health and its school environment in Nsukka LGA of Enugu State.

Purpose of the study

The purpose of the study was to examine the provision of health facilities for promoting healthy child-friendly school environment in primary schools in Enugu State. Specifically, the study determined the following:

1. The provision of school clinic health facilities for promoting a healthy preschoolerfriendly school environment in primary schools in Nsukka LGA, of Enugu State.
2. The provision of sanitary health facilities for promoting a healthy Preschoolerfriendly school environment in primary schools in Enugu State.
3. The provision of sports facilities for promoting a healthy Preschoolers friendly school environment in primary schools in Enugu State.
4. The provision of recreational and health facilities for promoting a healthy child-friendly school environment in primary schools in Enugu State

Research Questions

The study was guided by four research questions:

1. What are the provision of school clinic health facilities for promoting a healthy preschoolers friendly school environment in primary schools in Nsukka LGA, of Enugu State.
2. What are the provision of sanitary health facilities for promoting a healthy Preschoolerss friendly school environment in primary schools in Enugu State.
3. What are the provision of sports facilities for promoting a healthy Preschoolers friendly school environment in primary schools in Enugu State.
4. What are the provision of recreational and health facilities for promoting a healthy child friendly school environment in primary schools in Enugu State

Methods

The descriptive survey research design was employed in the study. The study population comprised all the 35daycare/primary school head teachers in Nsukka Local Government Area of Enugu State. The entire population was considered because of the manageable size of the population. Instrument for data collection was a questionnaire which was developed by the researchers, titled: "Healthy Child-Friendly School Environment Questionnaire (HCFSEQ)" containing 31 items. The

instrument was organized into four clusters and structured on a 4-point scale of Strongly Agree (SA) – 4 points, Agree (A) – 3 points, Disagree (D) – 2 points and Strongly Disagree (SD) – 1 point. The (HCFSEQ) questionnaire was validated by three experts in Faculty of Educational, University of Nigeria, Nsukka. The reliability of the instrument was established by carrying out a pilot test on a sample of 20 primary school head teachers from 20 public primary schools in Igbo Eze North LGA of Enugu State. Thereafter, the information obtained from these primary school heads were collated and measured using Cronbach Alpha method. The result gave an internal consistency reliability value of 0.88, meaning that the questionnaire was reliable to collect the necessary data for the study. Information was collected from the teachers' through a direct approach. The questionnaire was administered to the head teachers with the help of eight research assistants who were people familiar with terrain and location of the public primary schools in the LGAs. Administration of the research instrument took a period of one week and all the copies of the questionnaire that were distributed were all retrieved and used for data analysis. Data collected were analyzed using mean scores and standard deviation to answer the research questions. The benchmark for taking decision was based on the premise that any mean score that was rated at 2.50 and above was regarded as agreed and was accepted. On the other hand, any item with a score below 2.50 was regarded as disagreed and was not accepted.

Result

Table 1: Mean Scores and SD of Head Teachers concerning the Provision of School Clinic Health Facilities for promoting a Healthy Preschooler-Friendly School Environment in Primary Schools in Nsukka LGA of Enugu State

S/N	Please indicate provisions made for school clinic facilities in your school for promoting a healthy child friendly school environment	MEAN	SD	DECISION
1	A building is provided or allotted for school clinic	1.23	0.54	Disagree
2	The school has a sick bay where emergency cases are treated Well-equipped medical room or health unit manned by two qualified General Practitioners and seven	1.48	0.26	Disagree
3	Health equipment are provided in the school to enable children undergo regular growth assessments and medical check-ups	1.55	0.90	Disagree
4	Scales are available in the clinics for monitoring pupils' growth	1.20	0.68	Disagree
5	A professional doctor is available in the school to handle the pupils' health challenges/needs	1.43	0.69	Disagree
6	Adequate drugs are provided in the school clinics for general treatment of different kinds of illness	1.39	0.55	Disagree
7	Vaccination drugs including injections are available for pupils' immunization in the school clinic	1.78	0.45	Disagree

Data analyzed in Table 1 revealed that all items from 1 to 7 were rated by the head teachers below the acceptable mean score of 2.50. Thus, the respondents disagreed with the statements as none of the items was rated above the acceptable mean score. The grand mean of the head teachers of 1.55 and their standard deviation which ranged between 0.26 and 0.90 with an overall SD of 0.54 showed that there were small variations in the means scores. The result of data analysis, therefore, indicated that there were no provisions for school clinic health facilities for promoting a Preschooler-healthy and friendly school environment in primary schools in Nsukka LGA, of Enugu State.

Table 2: Mean Scores and SD of Head Teachers concerning the Provision of Sanitary Health Facilities for promoting a Healthy Child-Friendly School Environment in Primary Schools in Nsukka LGA of Enugu State

S/N	Please indicate provisions made for sanitary health facilities in your school for promoting a healthy child-friendly school environment	X	SD	Decision
1	Portable pipe-borne water or borehole is provided in the school	2.55	0.35	Agree
2	Adequate water points are provided at strategic positions in the school	1.46	0.20	Disagree
3	Well-equipped First Aid box is available in the school	1.56	0.50	Disagree
4	Sanitation activities such as cleaning the classrooms, clearing/burning of bushes in the school compound, are highly encouraged in the school	2.66	2.79	Agree
5	Sanitary health services through orientation programmes or health talks are organized for pupils in the school	1.76	0.60	Disagree
6	Wash hand basins are provided in every classroom in the school	1.36	0.55	Disagree
7	Adequate child-friendly toilet facilities including toiletries for male and female is provided in the school	1.55	0.90	Disagree

Data analyzed in Table 2 revealed that only items 1 and 4 rated above the acceptable mean score of 2.50. Thus, the respondents agreed with the statements as all the other items rated below the acceptable mean score benchmarked at 2.50. The standard deviation which ranged between 0.71 and 0.96 showed that there were small variations in the means scores. The result of data analysis therefore indicated that there were no provisions for sanitary health facilities for promoting a healthy child-friendly school environment in primary schools in Nsukka LGA, of Enugu State.

Table 3: Mean Scores and SD of Head Teachers concerning the Provision of Sports Facilities for promoting a Healthy Child Friendly School Environment in Primary Schools in in Nsukka LGA of Enugu State.

S/N	Please indicate provisions made for sports facilities in your school for promoting a child friendly school environment	X	Mean	Decision
1	A standard sports field is allotted in the school for organizing sports activities in the school	1.46	0.56	Disagree
2	Gymnastics centres are provided in the school	1.47	0.90	Disagree
3	Basketball and net ball sports facilities are provided in the school	1.37	0.37	Disagree
4	Provisions are made for aquatic and fitness centre (example: swimming pools) in the schools	1.98	0.20	Disagree
5	Combat centre is provided in the school	1.80	0.30	Disagree
6	Tennis courts is provided in the school	1.55	0.55	Disagree
7	Volleyball court is available in the school	1.60	0.37	Disagree

Data analyzed in Table 3 revealed that all items from 1 to 7 were rated by the head teachers below the acceptable mean score of 2.50. Thus, the respondents disagreed with the statements as none of the items was rated above the acceptable mean score. The standard deviation showed that there were small variations in the means scores. The result of data analysis therefore indicated that there were no provisions for sports facilities for promoting a healthy child friendly school environment in primary schools in Nsukka LGA, of Enugu State.

Table 4: Mean Scores and SD of Head Teachers concerning the Provision of Recreational Facilities Health Facilities for promoting a Healthy Child Friendly School Environment in Primary Schools in in Nsukka LGA of Enugu State.

S/N	Please indicate provisions made for recreational facilities in your school for promoting a child friendly school environment	X	SD	Decision
1	A space, site or portion of land is allotted for children play ground in the school	2.60	0.35	Agree
2	The children's play ground is well equipped and furnished with recreational facilities that promote children play	1.40	0.50	Disagree
3	A separate, soft and secured covered play area together with adequate equipment which creates opportunities for variety of activities and exploration is provided for the pupils during cooler seasons	1.47	0.45	Disagree
4	Well equipped and spacious rooms with variety of resources aimed at stimulating the interest of young students during recreation are available in the school	1.62	0.30	Disagree
5	A school canteen which offers healthy snacks are provided in the school	1.40	0.55	Disagree
6	Food vendors approved by the school are always available to provide healthy nutritional food for the pupils	1.50	0.50	Disagree
7	Standard policy which is a document guiding activities of the food vendors for their smooth operations in the school, is available	1.35	0.36	Disagree

Data analyzed in Table 4 revealed that only item 1 rated above the acceptable mean score of 2.0. Thus, the respondents agreed with the statements as all the other items namely 26 to 31 rated below the acceptable mean score benchmarked at 2.50. Thus, the head teachers disagreed with the statements as the mean indicated that they reacted negatively to majority of items in order to oppose the statements. The standard deviation which ranged between 0.50 and 1.02 showed there were small variations in the means scores. The result of data analysis therefore indicated that there were no provisions for recreational facilities for promoting a healthy child friendly school environment in primary schools in Nsukka LGA, of Enugu State

Discussion of Findings

Generally, the findings of this study indicated that there were no provisions for school health facilities for promoting a healthy of preschoolers in Nsukka LGA of Enugu State. One of the findings indicated that there were no provisions for school clinic health facilities for promoting a healthy child friendly school environment in primary schools in Nsukka LGA of Enugu State. This means that there was no building provided or allotted for school clinics; schools had no sick bay where emergency cases were treated. There were also no well-equipped medical room or health unit manned by qualified General Practitioners and seven nurses were not available in the school clinics among others.

This finding agrees with a more recent study by Oyinlade, Ogunkunle and Olanrewaju (2014) confirmed that evaluated school health services in Sagamu, Nigeria revealed that only one (1.1%) school benefited from the services of a school doctor. Essential drugs and materials for first aid services were available in 85 (93.4%) of the schools, while only 26 (28.6%) had a sick bay. Screening tests for disabilities were performed in only 10 (11%) of the schools visited. Although school midday meals were available in all the schools, they were not free. Private secondary schools had the highest percentage of good school health evaluation scores (63.6%), while 96.2% of the private primary schools had poor health service evaluation scores. They, therefore, concluded that school health services are unsatisfactory in Sagamu. With regards to health personnel, Ademokun, Osungbade and Obembe (2012) also found out in their study that only 1 (5%) of the schools had a school nurse, environmental health officer and community health officers.

It was also found in the study that there were no provisions for sanitary health facilities for promoting a healthy child friendly school environment in primary schools in Enugu State. This result means that there were no provisions for adequate water points to be provided at strategic positions in the schools; well-equipped First Aid box were not available in the schools; sanitary health services through orientation programmes or health talks were not organized for pupils in the school; wash hand basins were not provided in every classroom in the schools; adequate child friendly toilet facilities including toiletries for male and female were not provided in the school. All the above sanitary health facilities were found lacking in the primary schools making their school environment unfriendly for pupils learning and safety. This finding agrees with finding of Ademokun, Osungbade and Obembe (2012) study which confirmed that school health services were implemented by 33.3% of the schools and 23.8% of schools had good implementation of healthful school environment. Regarding source of water supply in schools, most of the schools 13 (62%) had wells as their source of water supply, only 7 (33%) had borehole and few 1 (5%) had pipe borne water.

The findings of this study also indicated that there were no provisions for recreational facilities like space for children playground, well-equipped and furnished children playground, spacious rooms for recreational activities, among others, for promoting a healthy child friendly school environment in primary schools in Enugu State. This finding is not in line with the directives of the Federal Republic of Nigeria (2013) under section 8, pg. 58 of the National Policy on Education which mandated school administrators and proprietors to make adequate provision of school meals and incentives, school gardens and recreational facilities in their schools. Moreover, all the findings of this present study could be likened to Ademokun, Osungbade and Obembe (2012) who conducted a study six years after the National School Health Policy came into being and did not show much improvement in the schools situation. These researchers discovered that implementation of SHP was poor, most especially in the areas of school health services and facilities provision including promoting healthy school environment. They found that many of the school head teachers had never heard of the 2006 NSHP; the skeletal health programmes in their schools were not run according to the minimum requirements stated in the 2006 National School Health Policy document; no funding came from the government for the implementation of the SHP which affected adequate provision of recreational health facilities in the schools. However, if the provisions for school clinic, sanitary, sports and recreational health facilities are not adequate, this will have negative impact in promoting healthy child-friendly school environment in primary schools in Enugu State.

Conclusion

Developing the primary schools to become child-friendly schools (CFS) is an initiative programme of the United Nations with its organs of UNESCO and UNICEF as one of the means in which quality education can be attainable in the schools environment. To maintain the principles, standards and likewise achieve the objectives of CFS model and initiative in preschoolers and primary schools alike in Enugu State means that all the strategic plans set aside for facilities provision including the health facilities must be adequate in order to work in the best interest of the child. However, the present study submits that there were no adequate provisions for school health facilities

as regards to the provisions of school clinics, sanitary, sports and recreational health facilities for promoting a healthy child friendly school environment in primary schools in Enugu State. Majority of the health facilities were not provided in the school, even the available ones provided were insignificant. Therefore, for the primary education school system in Enugu State to produce future generations who are vibrant for socio-economic development in the Nigerian society, adequate attention and considerations must be given to children health challenges and needs. The ugly situation in primary school Nsukka LGA of Enugu State which is as a result of the inability of the education stakeholders to make adequate provisions of health facilities calls for some recommendations which have been proffered in the next section.

Recommendations

From the findings of the study, the following recommendations have been made:

1. The Enugu State Government in collaboration with the Enugu State Universal Basic Education Board (ENSUBEB) should make adequate provision for health facilities like school clinics, sanitary, sports and recreational health facilities for promoting a healthy child friendly school environment in primary schools in Delta State. This should be followed by effective implementation of the National School Health Policy (NSHP), conducting needs assessment supervision in primary schools and forming synergies with the private sector in order to support the primary schools in the provision of health facilities in order to promote a healthy child friendly school environment in primary schools.
2. The Enugu State Government should also partner with the private organizations and individuals for their financial support for the provisions of school clinics health facilities for promoting a healthy child friendly school environment in primary schools in Enugu State.
3. Head teachers should ensure that provision for sanitary health facilities are adequate for promoting a healthy child friendly school environment in primary schools in Enugu State. This will warrant the head teachers to communicate to their regulatory body, that is, Enugu State Universal Basic Education (DSUBE) to make adequate provisions for sanitary health facilities in primary schools. Also, the head teachers should continually ensure that the sanitation exercise is regularly practiced in the primary schools in order to maintain a clean environment in the school for the pupils to emulate.
4. Head teachers should also solicit financial supports from international organizations, business philanthropists and financial institutions in their localities/communities for provisions of sports and recreational health facilities for promoting a healthy child friendly school environment in primary schools in Enugu State.

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**PSYCHOLOGICAL AND SOCIO-CULTURAL DETERMINANTS OF
SPORTS PARTICIPATION AMONG SECONDARY
SCHOOL IN NSUKKA L.G.A.**

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Abstract

The study investigated the determinants of sports participation among secondary school students in Nsukka L.G.A. of Enugu State. Two research objectives guided the study and descriptive research design was adopted. The sample consisted of 389 students gotten from 18,011 population of the secondary school students. Validated and reliability tested researcher-structured questionnaire was used for data collection while data was analyzed using mean scores and standard deviation. The findings show that psychological and socio-cultural determinants obtained mean scores of 2.90 SD .35.0 and 2.60 SD .31.6 respectively. The findings show that psychological and socio-cultural indices determine sports participation among the secondary school students. The study therefore recommends that government through the Ministries of Education, Sports, and PPSMB provide adequate sports facilities, equipment and enabling environment to encourage secondary school students to engage in structured sports activities.

Keywords: Sports, Determinants, Sports Participation, Secondary Schools.

Introduction

In recent times, there has been a general concern regarding participation in sports among diverse populations. In Nigeria, a research has indicated a great reduction in physical activity and locomotion among people due to mechanization and substitution of job performance facilities for the physical efforts (Okeneye, 2002; Joshua, Samson-Akapan, Eyo and Joshua, 2012; Eshraji, Kashef and Mehric, 2012). Other studies have shown that there exists low participation level in physical activity and sports among population including Staff and students of tertiary Institution in Nigeria. (Etuk, 2006; Eshragai, Kashef and Mehri, 2012).

Sports are recreational or competitive activities that involve some amount of physical strength or skill that has a form of disport meaning, a diversion and an amusement. Coakley (2001) defined sports as institutionalized competitive activities that involve rigorous physical exertion or the use of relatively complex skills by participants motivated by personal enjoyment and external rewards. Sports are institutionalized physical activity in which rules are fixed externally and beforehand (Appleby and Foster, 2013). In its broader concept it embraces athletics, games, play, gymnastics and activities of an individual and team variety, competitive and non-competitive (Bennett, 1975). Sports is therefore conceptualized in this study, as organized physical activities involving physical exertion carried out for competition, pleasure and exercise usually in special areas and according to fix rules which include fun and recreation for secondary school students in Nsukka Local Government Area. Onifade, (2003) states that sports as a social institution teaches and reinforces societal believes, norms and values, there by assisting in socializing athletes into major cultural and social behavior patterns in various societies.

Psychological determinants of sports participation include factors that associate with attitude, interest, motivation and reward. Learners and adolescents have variety of reasons why they participate in organized sports with “having fun” being the most important reasons in motivating sports participation. The most frequent form of motivation would be intrinsic, or internally based, rather than external. The overall motivation of youth in physical activity and sports settings is their attribution to success and failure as sports achievers. Their attributes are important because they can affect their emotions, expectations for the future and reasons to remain motivated. (Ezeadin, 2012), learners who are involved in competitive sports develop more internal attributes for success than external attributes

for both failure and success in sports. Participants in competition and recreational sports have different reasons for doing so. Some participate because of the incentives associated with participation; some athletes go into sports for ego boosting. Sports awards could be either intrinsic or extrinsic in nature. The motive of participation therefore, depends on individual athletes.

Socio-cultural determinants are another form of determinants of sports participation. They relate to those factors of sports participation that relates to peer group influence, influence of the family, and religious influence.

Sporting activities received by peer groups through participation in extra-curricular activities stimulate the student's desire for a continued status and recognition that are associated with these activities beyond high school. Peer group provides experience that helps the youths to become independent of parents and other figures and expose the students' ideas, values and experiences through sporting activities that may be encouraged in nuclear family (Hartmann, 2008).

Peer group operates to influence sports-related aspects of individual life-style. During childhood, peer groups are found in the immediate neighbourhood and tend to be somewhat similar in values to the individual.

Socio-economic status (SES). Students or adolescent with high socio-economic status are more likely to participate in physical activity (Gorden-Larsen, McMurray, and Popkin 2000). There is evidence that adolescents whose parents have attained higher education levels are more likely to participate in organized sports, structural exercises and games play in their leisure time than those whose parents have with educational level (Ommundsen, Klass-Heggebo, and Andersen, 2006).

Family support and support from peers are the key inter personal factors which significantly influence adolescents' physical activities behaviour (Luban, Silva & Morgan, 2007) including participation in leisure sports. However, there is inconclusive evidence regarding the changing nature of perceived family support across the transitional period of adolescent. It has been proposed that family support is more important for older adolescents (Lubans et al, 2007) whilst other researchers have found no difference in the level of perceived parental supports by age (Bauer, Nelson, Boutelle & Neumark-sztainer, 2008). Active participation in sports largely depends upon the supports, interaction and encouragement received from parents, siblings, teachers and the environment. In essence, youths who received support to participate in sports perform better than those who received neutral or negative reinforcement (Brustard, 1996).

To participate in sports, students need the great support and encouragement of their family members. Babatunde (2001) asserted that, the child has to seek parental approval and avoid disapproval in his or her day-to-day activities such as learning the various skills, attainment of knowledge, development of attitude and introduction to competitive and recreational sports. In addition, the family is in a better position to form the values which their offspring both male and female should have towards sports participation.

Secondary schools are institution that provides secondary education and also usually includes the building where this takes place. Secondary education is divided into two levels; lower (junior) secondary and upper (senior) secondary. The secondary school as one of the levels of schooling in Nigeria is made up of students who are predominantly in their early adolescent years between the ages of 10-17 years. One of the major extra-curricular activities which are present in most secondary schools is sports. Students and staff of institutions of higher learning who partake in sports and physical activities do so for many reasons including keeping of physical fitness and avoidance of illness (Barmman, Bellew, Vita, Brown & Owen, 2005). Despite the observed benefits associated with participation in sports, a large number of students and staff appear not to participate or participate sparingly in sporting activities (Olajide, 1998). In spite of the great efforts being put in place to advance the development of secondary school sports in Nigeria and recognizing the large human and material resource potentials which abound in Nigeria, it would appear that secondary schools in Nigeria are still backward in the area of sports development. Secondary schools in Nsukka LGA, are among those schools suffering from this downward trend situation in sports.

Therefore, this study attempts to concretely examine in the light of the foregoing, the socio-cultural determinants that affects the development of sports in secondary schools in Nsukka Local Government Area in Enugu State. Findings from this study would also provide empirical data on perceived socio-cultural determinants of the sports participation among students in secondary schools in Nsukka Local Government Area of Enugu State. These data will also be used by school administrators for planning of school sport activities.

Observation and experience have shown that there is a low participation by secondary school students in sporting competitions in Nsukka Local Government Area and that it scarcely features

prominently at the state and national sports competition. Hence, the study specifically seeks to find out the determinants associated with it.

1. Psychological determinants of participation in sports among secondary school students in Nsukka Local Government Area.
2. Socio-cultural determinants of participation in sports among secondary school students in Nsukka Local Government Area.

Methods

Design

The descriptive survey research design was used in this study. Descriptive research aims to accurately and systematically describe a population, situation or phenomenon. It can answer what, where, when and how questions. A descriptive research design can use a wide variety of research methods to investigate one or more variables. The research design should be carefully developed to ensure that the results are valid and reliable (McCombes, 2019).

Population

The population for the study comprises all the secondary school students in Nsukka Local Government Area. The total number of the students during the 2021/2022 session is Eighteen thousand and eleven (18,011). (Post-primary schools management board, Nsukka zonal office, Nsukka).

Sample and Sampling Technique

The sample for the study consists of three hundred and eighty nine secondary school students in Nsukka Local Government Area. This was arrived at using Taro Yamane formula. This is in line with Uzoagulu (2011), who states that when the population for the study is finite (known), the sample size can be statistically determined using the “Taro Yamane” formula.

The multi-stage sampling procedures were used to draw the sample for the study. Stage one involved the use of purposive sampling of two towns in Nsukka Local Government Area for the study. The second stage will be the use of stratified selection of schools into singles and mixed secondary schools, using simple random sampling techniques without replacement, two schools (one single and one mixed) were selected from each of the stratum in each of the two towns from stage one given a total of four schools. The third stage involved the use of purposive selection of JSS2, JSS 3, SS2 and SS3 class students from the sampled schools. Students’ selection was based on their class level, age and gender. Stage four will involve conveniently sampling 25 Students from each of the classes selected in third stage, this gave a total of 389 which was the total number of students that was used for the study.

Instrument

The face validated and reliability tested researcher-structured questionnaire was used for data collection. There are four points rating scale. They are as follows: Strongly Agreed (SA) indicates 4 points, Agreed (A) indicates 3 points, Disagreed indicates 2 points, while Strongly Disagreed (SD) indicates 1 point.

Analysis

The completed copies of the questionnaire were examined for completeness of information and responses. All statistical analysis will be done using the Statistical Package for Social Science (SPSS) version 21. Mean scores were used to answer the research question.

Result**Table 1: Mean and Standard Deviation response of Respondents on the psychological determinants of sports participation.**

S/N	Item Statement	SA	A	SD	D	Total Score	X	SD
1.	My parents do not encourage Sports	624	432	114	32	1202	3.1	.38.7
2.	My friends do not encourage SP	568	486	126	22	1202	3.1	.38.2
3.	My siblings do not allow me Participate in sports	312	309	310	53	984	2.4	.21.2
4.	I lack sports Skills	168	234	101	168	671	1.7	.17.5
5.	I am scared of injury or hurting Myself	660	387	126	32	1205	3.1	.39.1
6.	Lack of confidence discourage me to participate in sports	756	363	116	21	1256	3.2	.42.7
7.	Stress of School and Domestic work discourage me from sports Participation	780	408	68	24	1280	3.3	.44.5
8.	I don't give sports participation Attention	808	426	52	19	1305	3.3	.46.2
Cluster						X̄2.90	.35.0	

Key: High, ≥ 2.50 ; Low, ≤ 2.50

Results in Table 1 showed that the psychological determinants of sports participation in Nsukka Local Government Area are high. (Cluster $X = 2.9$; $SD = .35.0$).

Table 1: show the mean scores of students regarding their perception of features of psychological determinants for sports participation among secondary school students. Although all the features of psychological determinants had a mean score above the criterion mean score of 2.50 except two more than four (4) had the highest mean score namely the 'Stress of School and Domestic work discourage me from sports 3.2', 'followed by my parents do not encourage Sports as 3.1', 'My friends do not encourage Sports participation as 3.1' and 'I am scared of injury or hurting myself as 3.1'. 'My siblings do not allow me had a mean score of 2.4' while I lack sports Skills had the lowest score of 1.7' Based on the cluster mean score of 2.90 it was concluded that student generally believe that psychological features are determinants of sports participation in secondary school.

Table 2: Mean response of Respondents on the Socio-Cultural determinants of sports participation.

S/N	Item Statement	SA	A	SD	D	Total Score	X	SD
1.	My friends discourages participation in sports.	572	474	68	54	1168	3.0	.37.7
2.	My religion discourages participation in sports.	388	267	372	17	1044	2.6	.30.3
3.	My tradition/culture discourages participation in sports	356	153	308	95	912	2.3	.25.4
4.	My friends see sports participation as a waste of time	192	204	234	156	786	2.0	.20.0
5.	Where I am leaving forbids sports Participation	260	204	286	113	809	2.1	.22.6
6.	My family background encourages sports participation	732	330	158	17	1237	3.2	.41.3
7.	The location of my house is far from Sports facilities	768	411	64	28	1271	3.3	.44.0
Cluster						X̄ 2.60	.31. 6	

Key: High, ≥ 2.50 ; Low, ≤ 2.50

Results in the Table showed that the socio-cultural determinants of sports participation in Nsukka Local Government Area is high. (Cluster $X = 2.6$; $SD = 31. 6$). Few of the features of Socio-

cultural determinants had a mean score above the criterion mean score of 2.50 except three. More than four (4) had the mean score above the 2.50 namely the 'The location of my house is far from Sports facilities as 3.3, 'followed by my family background encourages sports participation as 3.2', 'My religion discourages participation in sports as 2.6' My tradition/culture discourages participation in sports as 2.3'. 'My friends see sports participation as a waste of time had a mean score of 2.0' while Where I am leaving forbids sports had second to the lowest score as of 2.1'. Based on the cluster mean score of 2.60, this shows that socio-cultural indices determine sports participation in secondary school.

Discussions

From the research question one on the psychological determinants of participation in sports among secondary school students most of the findings agree with the fact that Psychological determinants of sports participation such as attitude, interest and motivation either from the parents or the individual can have negative impact of consequences on their participation of sports. This claim supports the view of Burton & Naylor, (2011) who stated that stress, anxiety and some other psychological factors can impacts on peoples' quality of life, and social and psychological well-being which affects the participation sports. Stress, anxiety and further stigma can reduce acceptance, discrimination, rejection and social exclusion in sports participation (Burton & Naylor, 2011). Also, According to Nummenmaa (2015), fear is typically launched by a possibly dangerous situation, is a part of a person's normal defensive mechanisms, and has effects on the sympathetic nervous system and has strong effect on sports participation among adolescent. Typically fear manifests as intense yet relatively brief by its duration. However, Nummenmaa (2015) has argued that fear mechanisms could also trigger beforehand, and that these prolonged states of alertness and anxiety could develop into serious states of fear. By its form, fear possesses strong relations to motivational, bodily-somatic and operational issues.

Research question which focuses on the socio-cultural determinants of sports participation among secondary school students, most of the respondents do not agree that socio-cultural determinants of sports affects their sports participation. This is in supports of the view of Middleton and Loughead (2003) who stated that adolescents are less influenced by peers when they have close and involving relationships with their parents. The authors further contended that the ability of peers to influence the behaviours and attitudes of adolescents is magnified when adolescents hold negative perceptions about their parental relationship. Though some agree to the fact that their family background does affect their participation in sports. This is in view of (Bauer et al 2008) who stated that the nature of social support and its contribution to adolescents' sports participation level is complex, nonetheless most studies report family support as a critical factor. According to (Brustard 2016), Active participation in sports largely depends upon the supports, interaction and encouragement received from parents, siblings, teachers and the environment. In essence, youths who received support to participate in sports perform better than those who receive-neutral or negative reinforcement.

Conclusion and Recommendation

The Psychological determinants of sports has been shown to be associated with many psychological and social effect with factors such as parental upbringing and believe system, stress and consciousness of injury are some other factors associated with psychological determinant that influence students participation in sports in secondary school. Though, some other psychological determinants such as motivation and positive attitude towards sports participation help Students to maintain balance in sports activities. Socio-cultural determinants of sports do not seem to have much effect on students participation in sports instead factors such as Peer group provides experience that helps the youths to become independent of parents and other figures and expose the students.

Consequent upon the findings of the study, the researcher made the following recommendations:

1. Parents needs to encourage their children to participate in sports activities considering the social and health benefits derive from sports participation.
2. A more regular inter-school sport competition programmes should be encouraged by the government to foster sports participation among Students.
3. Government through its ministries of education and agencies such as PPSMB and other stakeholders should provide adequate facilities and good sporting environment to encourage students to participate in Sports activities.

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ROLE OF CULTURAL CONTEXT IN EARLY CHILDHOOD EDUCATION FOR SUSTAINABLE DEVELOPMENT IN NIGERIA

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Abstract

This study examined the role of cultural context on early childhood education in Nigeria and its implications for promoting sustainable development. The study used a descriptive survey research design, involving a sample population of 284 undergraduates in childhood education randomly selected from the Department of Educational Foundations, Faculty of Education, University of Nigeria, Nsukka. The instrument for data collection was a structured questionnaire developed by the researchers. The instrument was face validated by two Childhood Educators and an expert in Measurement and Evaluation Unit, Department of Science Education, all within the University of Nigeria Nsukka. The internal consistency of reliability was ascertained using Cranach Alpha and an overall reliability estimate of 0.82 was obtained. Mean scores and standard deviation were used to answer the research questions. The findings indicated that cultural values and traditions significantly influence the design and implementation of early childhood education programmes in Nigeria. The findings highlighted the importance of considering local beliefs, customs, and language in curriculum development and instructional methods. The study also revealed the potential of integrating indigenous knowledge and practices into early childhood education to foster a sense of cultural identity and sustainability. The study recommended that early childhood education should integrate culturally relevant content, activities, and languages into the curriculum to promote cultural responsiveness and inclusivity.

Keywords: Cultural context, early childhood education, sustainable development, cultural values and traditions

Introduction

In the context of early childhood education for sustainable development in Nigeria, understanding the influence of cultural factors is of paramount importance. Nigeria's rich cultural diversity shapes the educational experiences of young learners, impacting their development and shaping the future of the nation. This research delves into the captivating interplay between cultural context and early childhood education, exploring how cultural norms, beliefs, and traditions influence teaching methodologies, curriculum development, parental involvement, and community engagement. Hence, by shedding light on these dynamics, the study seeks to pave way for more effective and culturally responsive approaches to early childhood education, ultimately contributing to the sustainable growth and prosperity of Nigeria's future generations.

Early childhood education refers to the educational experiences and interventions provided to children between birth and the age of eight years. This period is crucial for a child's overall development as it lays the foundation for future learning, behavior, and social interactions. In Nigeria, early childhood education is recognized as a critical component of the educational system, playing a pivotal role in shaping young minds and preparing them for lifelong learning. Researchers such as Smith and Johnson (2018) have emphasized the significance of investing in quality early childhood education programs to address developmental gaps and promote sustainable human development in Nigeria. Government agencies, policymakers, educators, and researchers have collaborated to

introduce various initiatives and interventions to improve access to and enhance the quality of early childhood education in the country.

Early childhood education in Nigeria plays a crucial role in laying the foundation for a child's lifelong learning and development. It encompasses educational programs and interventions for children between birth and the age of eight years, a critical period for cognitive, social, emotional, and physical growth. In Nigeria, early childhood education is recognized as a fundamental component of the educational system and is aimed at preparing children for formal schooling while fostering holistic development. According to Johnson and Smith (2017), the provision of early childhood education in Nigeria takes various forms, including formal and informal settings. Formal settings consist of government and privately-run early childhood centers, nursery schools, and kindergartens, while informal settings include community-based learning centers and home-based initiatives. However, there are challenges in ensuring equitable access and quality across different regions, with rural areas often facing limited educational resources and infrastructure. Interestingly, the curriculum in early childhood education focuses on age-appropriate activities and play-based learning that encourage curiosity, creativity, and social interaction (Brown & Williams, 2019). While English is the official language of instruction, efforts are made to incorporate local languages to ensure cultural relevance and inclusivity. Early childhood educators, as emphasized by Thomas and Martin (2018), play a vital role in guiding children's development and ensuring a nurturing and stimulating learning environment. They are trained to create a positive and conducive atmosphere for young learners to explore and develop their potential. However, despite the progress made, there are still issues to address in early childhood education in Nigeria, such as inadequate funding, teacher training, and infrastructure. Additionally, improving access and equity for marginalized and disadvantaged groups remains a challenge. On the whole, early childhood education in Nigeria continues to be a significant focus in educational policy and development efforts. By investing in quality early childhood programs and addressing the challenges, Nigeria aims to provide a solid educational foundation for its youngest learners, promoting their overall well-being and contributing to the sustainable development of the nation.

Sustainable development in education involves recognizing the interconnectedness of social, economic, and environmental aspects of learning and development (UNESCO, 2002). It goes beyond traditional academic knowledge and aims to instill values, attitudes, and skills that promote responsible citizenship, environmental stewardship, and social equity (Huckle & Sterling, 1996). Emphasizing a holistic approach, education for sustainable development considers the social, economic, and environmental dimensions of learning, fostering intellectual, emotional, and social growth (UNESCO, 2005). Inclusivity and equity are essential principles, ensuring equal access to quality education for all learners, regardless of background or status, to bridge educational gaps and reduce inequalities (UNESCO, 2014). Environmental awareness is cultivated to instill consciousness about the impact of human actions on the planet and promote sustainable practices (UNESCO, 2010). Moreover, education for sustainable development encourages critical thinking and problem-solving skills, empowering learners to analyze complex issues and propose innovative solutions, thus fostering active and engaged citizens (Sterling, 2001). It also promotes global citizenship, urging learners to understand interconnectedness and address global challenges like climate change and poverty through collective action (UNESCO, 2015). Lifelong learning is emphasized as a crucial aspect, ensuring that individuals continuously acquire knowledge and skills to adapt to evolving societal needs and contribute to sustainable development throughout their lives (UNESCO, 2013). Hence, collaboration between educational institutions, governments, communities, and stakeholders is a pivotal element for advancing sustainable development in education (UNESCO, 2004). Through collaborative efforts, resources can be pooled, knowledge shared, and effective strategies implemented to create sustainable learning and development environments. In conclusion, sustainable development in education aligns with global efforts to achieve the United Nations Sustainable Development Goals, aiming to create informed, responsible, and engaged individuals who contribute positively to building a more sustainable and equitable future for present and future generations.

The role of cultural context in shaping early childhood education practices, with a focus on the influence of cultural context on early childhood education for sustainable development in Nigeria, is of paramount importance. According to Brown and Williams (2019), Nigeria's rich cultural diversity and traditions play a significant role in molding early childhood education approaches that align with sustainable development goals. Interestingly, cultural context informs the design of curricula and content, incorporating diverse cultural perspectives, traditions, and values that resonate with children from different cultural backgrounds. By recognizing and validating children's cultural identities, cultural context fosters a sense of belonging and acceptance in the learning environment, promoting

positive self-esteem and well-being. Furthermore, emphasizing cultural context also influences language policies, enabling the integration of multiple languages spoken by children, preserving linguistic identities, and supporting language development. Moreover, cultural context shapes teaching methods and approaches that cater to the learning styles and preferences of diverse learners, enhancing engagement and understanding.

Cultural awareness and respect according to Akindele (2019) are cultivated through early childhood education practices that embrace cultural diversity, fostering empathy, respect, and tolerance towards others. By nurturing such attitudes from an early age, early childhood education lays the foundation for a more inclusive and harmonious society. Additionally, family and community engagement are encouraged through cultural context integration, as families are more likely to be actively involved in their children's education when their cultural values and practices are respected and integrated into the curriculum. Furthermore, early exposure to diverse cultures through cultural context instills a sense of global citizenship in young learners. Children develop an understanding of the interconnectedness of the world and their role as global citizens, promoting a sense of responsibility towards global challenges and contributing to sustainable development goals. Hence, cultural context according to Brown and Williams (2019), plays a pivotal role in shaping early childhood education practices in Nigeria, as it fosters cultural awareness, identity, and belonging while nurturing empathy, respect, and global citizenship. By embracing cultural context in early childhood education, Nigeria can pave the way for a more sustainable and inclusive future, where cultural heritage and environmental consciousness thrive hand in hand.

Cultural Influences on Early Childhood Education in Nigeria are a critical area of research, revealing how cultural values shape educational practices. Enemali and Jacob (2018) found that cultural beliefs influence teaching methods, classroom management, and curriculum design. Recognizing these influences is vital for creating inclusive learning environments that resonate with young learners' cultural identities. Akindele (2019) explored language's role in classrooms, emphasizing the importance of using familiar languages to enhance engagement and preserve cultural heritage. Oyinloye and Lawal (2020) highlighted the significance of parental involvement and family dynamics in education, fostering strong educational partnerships between schools and families. Considering community and societal norms aligns educational practices with societal values (Oyinloye & Lawal, 2020). Early Childhood Education (ECE) for Sustainable Development (Enemali & Jacob, 2019) aims to instill environmental consciousness, social responsibility, and global citizenship in young learners. It involves integrating environmental, social, and economic sustainability into the curriculum and daily practices. Activities like gardening and recycling teach children about environmental protection, while promoting inclusivity and respect for diverse cultures fosters social sustainability (Akindele, 2020).

Fostering sustainable values and practices in young learners is a shared responsibility among educators, parents, and the community. Oyinloye and Lawal (2021) suggest that by modeling sustainable behaviors and providing opportunities for hands-on experiences, children are more likely to internalize and embrace these values in their daily lives. Moreover, early childhood education plays a crucial role in cultivating a sense of global citizenship and responsibility. Educators can introduce children to diverse cultures, countries, and global challenges, enabling them to develop empathy and a sense of connectedness with people from around the world. Engaging in activities that promote social activism, such as raising awareness about global issues or participating in community service projects, can empower children to make positive contributions to society. However, this approach also faces challenges. Age-appropriate pedagogies need to be developed to effectively communicate complex sustainability concepts to young children. Additionally, the involvement of parents and communities is essential to reinforce sustainable practices beyond the school environment. Nonetheless, Early Childhood Education for Sustainable Development is a transformative approach that equips young learners with the knowledge, values, and skills to become agents of positive change. By fostering environmental stewardship, social responsibility, and a sense of global citizenship, ECE sets the foundation for a more sustainable and equitable future. Embracing this approach empowers children to be conscious decision-makers and active contributors in shaping a better world for themselves and generations to come.

Cultural context in early childhood education significantly contributes to sustainable development outcomes in Nigeria through various essential ways. As highlighted by Adeneye and Williams (2019), integrating cultural context fosters cultural awareness and respect among children, allowing them to appreciate and honor their own cultural heritage and that of others, leading to enhanced social cohesion and sustainable social development. Moreover, the preservation of indigenous knowledge and practices, as emphasized by Okafor and Akpa (2020), plays a crucial role

in sustaining traditional ecological wisdom, promoting sustainable farming practices, and preserving Nigeria's cultural heritage for future generations. The incorporation of environmental stewardship, as discussed by Bello and Umar (2020), instills in children a sense of responsibility and care for the environment, nurturing environmentally conscious citizens who are committed to sustainable resource management. Lastly, promoting local relevance and ownership, as explored by Ajayi and Akinwale (2019), makes early childhood education more meaningful to the community, fostering sustained interest and active participation in various sustainable development initiatives in Nigeria. By integrating cultural context into early childhood education, Nigeria can effectively foster a generation of culturally aware, environmentally responsible, and actively engaged citizens committed to sustainable development.

Challenges in integrating cultural context in early childhood education practices in Nigeria are essential to address to ensure effective and culturally responsive learning environments. Nigeria's cultural landscape is incredibly diverse, comprising over 250 ethnic groups, each with its distinct language, customs, and traditions (Enemali & Jacob, 2018). This diversity poses challenges in understanding and accommodating the varied cultural contexts of young learners, as educators need to navigate and respect multiple cultural perspectives. Many educators may not possess sufficient cultural competence or training to understand and incorporate diverse cultural perspectives into their teaching practices (Akindele, 2019). This lack of awareness may result in unintentional cultural insensitivity and misunderstandings, potentially leading to ineffective educational experiences for children. Importantly, the dominance of Western educational models and curricula can sometimes overlook or marginalize indigenous knowledge and practices (Oyinloye & Lawal, 2020). This can create disconnect between children's cultural identities and the content taught in early childhood classrooms. Language is a significant aspect of cultural identity, and in Nigeria, there are over 500 indigenous languages spoken (Adeneye, 2019). The use of a language unfamiliar to children may hinder effective communication and engagement in the learning process, making it challenging to integrate cultural context seamlessly. Socioeconomic disparities can impact access to quality early childhood education. Children from marginalized communities may not have equal opportunities to benefit from culturally responsive learning experiences due to limited resources and support (Oyinloye & Lawal, 2020). The availability of culturally relevant teaching materials and resources can be limited, making it difficult for educators to incorporate local cultural content into their lessons effectively (Enemali & Jacob, 2018). Traditional educational practices may resist changes that incorporate new cultural perspectives. This resistance can hinder the integration of culturally responsive teaching methods and curriculum innovations.

Moreover, parental expectations regarding educational practices might not always align with cultural responsiveness. Some parents may prefer a more traditional approach to education, which may conflict with new culturally sensitive methodologies (Oyinloye & Lawal, 2020). Addressing these challenges requires a multi-faceted approach. Professional development programs should be implemented to enhance educators' cultural competence and understanding (Akindele, 2019). Curricula should be designed to include diverse cultural content and reflect the richness of Nigeria's cultural heritage (Enemali & Jacob, 2018). Collaborating with local communities and parents to co-create culturally relevant learning experiences can also help bridge the gap between home and school environments. Additionally, utilizing technology and digital resources can expand access to culturally appropriate materials (Adeneye, 2019). Hence, by proactively addressing these challenges, early childhood education in Nigeria can become more inclusive, fostering a positive and supportive learning environment where every child's cultural identity is respected and celebrated.

Addressing cultural biases and misconceptions in educational practices is a crucial endeavor to foster inclusive and equitable learning environments. Biases and misconceptions can lead to unfair treatment, marginalization, and hinder the educational progress of certain groups of students. To effectively tackle these issues, several strategies can be implemented. First, providing cultural awareness training through workshops and seminars for educators and school staff helps enhance their understanding and sensitivity to diverse cultural backgrounds (Smith et al., 2020). Second, developing and implementing a culturally responsive curriculum that integrates diverse perspectives and histories ensures representation and recognition of all students' identities in the learning materials (Nguyen & Sutherland, 2019). Additionally, incorporating a diverse range of literature and resources in the classroom library challenges stereotypes and promotes cultural appreciation (Gomez & Torres, 2018). Emphasizing inclusive classroom practices and open discussions about cultural differences fosters an environment of respect and empathy among students (Brown & Lee, 2021). Organizing intercultural exchanges and activities enables students to learn from one another, break down stereotypes, and build meaningful relationships (Chen & Wang, 2017).

Furthermore, engaging parents and caregivers from diverse cultural backgrounds in the educational process fosters a supportive and inclusive learning environment (Jackson et al., 2019). Addressing bias in assessment practices and being vigilant about micro-aggressions are essential to ensure fair treatment and equal opportunities for all students (Robinson & Martinez, 2018). Regular self-reflection and self-assessment by educators help identify and address unconscious biases in their teaching practices (Harris & Johnson, 2020). Finally, promoting diversity among the teaching staff enriches the learning experience for all students by reflecting the cultural backgrounds of the student population (Garcia & Rodriguez, 2019). By implementing these strategies, educational institutions can create a more inclusive and culturally sensitive learning environment, fostering an atmosphere of mutual respect and understanding among students and educators.

Strategies to enhance cultural context in early childhood education practices in Nigeria play a pivotal role in fostering inclusive and culturally responsive learning environments (Smith et al., 2021). Acknowledging the diverse cultures within Nigeria, these strategies aim to promote cultural appreciation and understanding among young learners. One such strategy is developing and implementing a culturally relevant curriculum that integrates elements from different ethnic groups, incorporating traditional stories, songs, dances, and art to ensure students see their cultural identities represented in the classroom (Adeneye & Williams, 2019). Another approach involves emphasizing the promotion of indigenous languages alongside the official language of instruction, preserving cultural heritage and instilling pride in children's identities (Okafor & Akpa, 2020). Cultural celebrations and events can be organized to showcase the traditions and customs of various ethnic groups, providing students with opportunities to learn about and appreciate different cultures (Okeke & Eze, 2018). Additionally, engaging with local communities and elders can enrich the educational process by incorporating cultural knowledge and practices into the curriculum (Ajayi & Akinwale, 2019). Having a diverse teaching staff, representative of the students' cultural backgrounds, serves as positive role models and enhances the learning experience (Adeniran et al., 2021).

Moreover, utilizing inclusive learning materials that represent the cultural diversity of Nigeria helps students connect with the content and fosters a sense of belonging in the learning community (Okeke & Adeleke, 2021). Organizing field trips to cultural heritage sites and museums further exposes students to the rich cultural heritage of Nigeria, making learning more engaging and experiential (Bello & Umar, 2020). Parent and community engagement is vital in promoting cultural context in early childhood education. Encouraging parents and caregivers to share their cultural experiences and traditions fosters a sense of partnership between home and school (Ogunsola & Balogun, 2017). Creating intercultural learning circles within the classroom setting allows students to share their backgrounds and customs, promoting understanding and empathy among peers (Smith & Okoli, 2021). Continuous professional development for educators is crucial in enhancing their cultural competence and pedagogical approaches (Adewumi & Ayodeji, 2019). Providing training on cultural sensitivity, anti-bias education, and strategies to integrate cultural context into the curriculum empowers educators to create more culturally responsive learning environments. Hence, by implementing these strategies, early childhood education practices in Nigeria can become more culturally sensitive and inclusive, celebrating the diversity of young learners and preparing them to be culturally aware and globally engaged citizens.

The study on the influence of cultural context on early childhood education for sustainable development in Nigeria exhibits several gaps. First, there may be limited focus on specific cultural groups, leaving out the perspectives of underrepresented ethnicities. Additionally, the lack of longitudinal studies hinders understanding the long-term impact of cultural factors on early childhood education. Moreover, intersectionality with other social identities, such as gender and socioeconomic status, is often overlooked. Furthermore, the research might not fully explore parental perspectives and roles in shaping early childhood education within a cultural context. Scarce attention may be given to sustainable development integration into early childhood education, and there is a need for comparative studies to understand cultural nuances in Nigeria. The incorporation of indigenous knowledge and the training of early childhood educators are also areas with limited exploration. Addressing these gaps through inclusive research designs and interdisciplinary approaches can lead to more culturally responsive and effective educational practices.

Purpose of the Study

Specifically, the study intended to:

1. examine ways cultural context in early childhood education contributes to sustainable development outcomes in Nigeria.

2. examined the challenges in integrating cultural context in early childhood education practices in Nigeria.
3. determine the strategies to enhance cultural context in early childhood education practices in Nigeria.

Research Questions

The following research questions guided the study:

1. In what ways does cultural context in early childhood education contributes to sustainable development outcomes in Nigeria?
2. What are the challenges in integrating cultural context in early childhood education practices in Nigeria?
3. What are the strategies to enhance cultural context in early childhood education practices in Nigeria?

Methods

The study adopted a descriptive survey research design, involving a sample population of 284 undergraduates in childhood education randomly selected from the Department of Educational Foundations, Faculty of Education, University of Nigeria, Nsukka. The instrument for data collection was a structured questionnaire developed by the researchers titled: Cultural Context in Early Childhood Education for Sustainable Development Questionnaire (CCECESDQ). The instrument was face-validated by three experts, two from the Childhood Education Unit, in the Department of Educational Foundations and one from Measurement and Evaluation Unit, Department of Science Education, all within the Faculty of Education, University of Nigeria Nsukka. The internal consistency of reliability was ascertained using Cronbach Alpha and an overall reliability estimate of 0.82 was obtained. Mean scores and standard deviation were used to answer the research questions. The scales used for the questionnaire was Strongly Agree (SA), Agree (A), Disagree (D) and Strongly Disagree with values of 4, 3, 2 and 1 respectively. These responses were based on positively worded items, while the reverse was true for negatively worded items. The average score from coded data ($4+3+2+1=10/4$) was 2.50.

Results

Research Question One: In what ways does cultural context in early childhood education contribute to sustainable development outcomes in Nigeria?

Table 1: Mean ratings and standard deviation of responses on the ways cultural context in early childhood education contribute to sustainable development outcomes in Nigeria

S/N	Item statement	M	SD	Decision
1.	To include cultural elements in early childhood education to fosters a sense of identity and belonging.	2.56	0.11	A
2.	To emphasize cultural context to promotes mutual respect and social cohesion among children	2.76	0.09	A
3.	To incorporate traditional practices encourages environmental responsibility	2.77	0.09	A
4.	To involve parents and caregivers to empowers communities and strengthens family-school bonds	2.87	0.08	A
5.	To preserve traditional knowledge for sustainable living.	2.92	0.07	A
6.	To encourage responsible decision-making for future generations	2.66	0.10	A
7.	To recognize the interdependence of human actions on society and the environment.	2.56	0.11	A
8.	To foster a sense of global responsibility and understanding of global challenges.	2.55	0.11	A
9.	To address social inequalities and fairness in early childhood education.	2.50	0.11	A
10.	To teach sustainable behaviours and practices from an early age.	2.73	0.09	A
11.	To cultivate empathy and compassion towards others in the environment.	2.98	0.06	A
12.	To encourage critical thinking skills to analyze sustainability issues and propose solutions.	2.51	0.11	A
13.	To promote collaborative learning experiences that emphasizes teamwork and collective problem-solving.	2.71	0.10	A

14.	To equippe children with life skills that contribute to sustainable living and responsible citizenship.	2.79	0.09	A
15.	To nurture resilience in children to adapt to changing environments and challenges.	2.80	0.09	A
16.	To fostering an appreciation towards natural world for sustainable attitudes.	2.61	0.11	A
Cluster mean score		2.71	0.10	A

Table 1 above revealed the mean ratings and standard deviation of responses on the ways cultural context in early childhood education contribute to sustainable development outcomes in Nigeria. Item 1 – 16 met the criterion mean score of 2.50 and above which indicate acceptance by respondents. The above statements were accepted by based on the findings of the study, the cluster mean score of 2.71 and standard deviation of 0.10 was used to finalize the research on table 1.

Research question Two: What are the challenges in integrating cultural context in early childhood education practices in Nigeria?

Table 2: Mean ratings and standard deviation of responses on the challenges in integrating cultural context in early childhood education practices in Nigeria

S/N	Item statement	M	SD	Decision
17.	Insufficient resources for implementing culturally relevant curricula.	2.76	0.09	A
18.	Difficulty in delivering culturally sensitive education with multiple languages.	3.00	0.06	A
19.	Lack of awareness about the importance of cultural context in education.	3.01	0.06	A
20.	Need for specialized training to effectively integrate cultural context.	2.79	0.09	A
21.	Finding a balance between cultural practices and modern approaches.	2.70	0.10	A
22.	Overcoming stereotypes to promote inclusive education.	2.50	0.11	A
23.	Challenges in translating cultural integration policies into practice.	2.61	0.11	A
24.	Involving communities to contribute to cultural context in education.	2.66	0.10	A
25.	Developing appropriate assessment methods considering cultural diversity.	2.88	0.08	A
Cluster mean score		2.77	0.09	A

Data in Table 2 above shows the mean ratings and standard deviation of responses on the challenges in integrating cultural context in early childhood education practices in Nigeria. Item 17 – 25 met the standard mean requirements which indicate acceptance by respondents, the above mentioned statements were analyzed and accepted as the challenges in integrating cultural context in early childhood education in Nigeria based on the cluster mean score of 2.77 and standard deviation of 0.09 correspondingly.

Research Question Three: What are the strategies to enhance cultural context in early childhood education practices in Nigeria?

Table 3: Mean ratings and standard deviation of responses on the strategies to enhance cultural context in early childhood education practices in Nigeria

S/N	Item statement	M	SD	Decision
26.	Ensure adequate funding and provision of resources to support the implementation of culturally relevant curricula.	3.11	0.03	A
27.	Develop language-inclusive practices that accommodate multiple languages spoken in different regions of Nigeria.	3.10	0.04	A
28.	Raise awareness among educators and policymakers about the significance of integrating cultural context in early childhood education.	3.01	0.06	A
29.	Offer specialized training for early childhood educators to effectively integrate cultural elements into their teaching practices.	2.82	0.08	A
30.	Promote collaborations between educational institutions, communities, and cultural organizations to co-create culturally responsive curricula and activities.	3.00	0.06	A
31.	Encourage active involvement of parents and community members in	3.12	0.03	A

	early childhood education to support cultural integration and reinforce cultural values.			
32.	Implement teaching methods that respect and incorporate diverse cultural practices and traditions to create inclusive and culturally rich learning environments.	3.05	0.05	A
33.	Create assessment methods that consider cultural diversity and take into account different cultural perspectives on learning and development.	2.99	0.06	A
34.	Align education policies with the promotion of cultural context in early childhood education, ensuring that cultural integration is reflected in educational frameworks and guidelines.	2.91	0.07	A
35.	Regularly evaluate the effectiveness of cultural context integration efforts and make necessary adjustments to enhance their impact on children's holistic development.	2.90	0.07	A
	Cluster mean score	3.00	0.06	A

Results presented in Table 3 show the mean ratings and standard deviation of responses on the strategies to enhance cultural context in early childhood education practices in Nigeria. The above-listed items were ranged above the criterion mean value of 2.50 which according to decision rule indicate acceptance by respondents. The above listed strategies were accepted based on the clusters mean score of 3.00 and standard deviation of 0.06 correspondingly.

Discussion

The findings of the study revealed ways does cultural context in early childhood education contribute to sustainable development outcomes in Nigeria which include: Including cultural elements in early childhood education fosters a sense of identity and belonging; emphasizing cultural context promotes mutual respect and social cohesion among children; incorporating traditional practices encourages environmental responsibility; involving parents and caregivers empowers communities and strengthens family-school bonds; preserving traditional knowledge for sustainable living; encouraging responsible decision-making for future generations; recognizing the interdependence of human actions and their impact on society and the environment; fostering a sense of global responsibility and understanding of global challenges; addressing social inequalities and promoting fairness in early childhood education; and encouraging critical thinking skills to analyze sustainability issues and propose solutions among others. The findings agree with the study of Adeneye and Williams (2019) who posited that the integration of cultural context in early childhood education plays a vital role in contributing to sustainable development outcomes in Nigeria. By incorporating elements of Nigeria's diverse cultures into the curriculum, children gain a deeper appreciation and respect for their own cultural heritage and that of others. Moreover, the preservation of indigenous knowledge and practices, as emphasized by Okafor and Akpa (2020), helps sustain traditional ecological wisdom and promotes sustainable farming practices, contributing to the preservation of Nigeria's cultural heritage and supporting sustainable agricultural development. Furthermore, integrating environmental stewardship into early childhood education, as discussed by Bello and Umar (2020), instills in children a sense of responsibility and care for the environment. This lays the foundation for environmentally conscious citizens who are committed to sustainable resource management and environmental preservation, contributing to sustainable environmental development in Nigeria.

The findings of the study revealed the challenges in integrating cultural context in early childhood education practices in Nigeria which include: Insufficient resources for implementing culturally relevant curricula; difficulty in delivering culturally sensitive education with multiple languages; lack of awareness about the importance of cultural context in education; overcoming stereotypes and biases to promote inclusive education; involving communities to support and contribute to cultural context in education; and developing appropriate assessment methods considering cultural diversity. The findings are in consonance with the study of Akindele (2019) who posited that integrating cultural context in early childhood education practices in Nigeria faces several challenges. First, the cultural diversity of Nigeria with over 250 ethnic groups (Enemali & Jacob, 2018) can be a complex task for educators, as each group has its distinct customs, traditions, and languages. This diversity may lead to challenges in understanding and accommodating the varied cultural perspectives of young learners. Additionally, the dominance of Western educational models and curricula may overlook or marginalize indigenous knowledge and practices (Oyinloye & Lawal, 2020). This can create disconnect between children's cultural identities and the content taught in early childhood classrooms, hindering the effective integration of cultural context. Furthermore, the lack of cultural competence or training among educators (Akindele, 2019) may result in unintentional cultural

insensitivity and misunderstandings, making it challenging to effectively incorporate cultural perspectives into teaching practices. Limited availability of culturally relevant teaching materials and resources (Enemali & Jacob, 2018) can also hinder the seamless integration of cultural context in early childhood education.

The study identified strategies to enhance cultural context in early childhood education in Nigeria, including funding culturally relevant curricula, language-inclusive practices, raising awareness, specialized educator training, collaborations with cultural organizations, involving parents and communities, and incorporating diverse cultural practices. The findings are in consistency with the study of Adeneye (2019) who asserts that to enhance cultural context in early childhood education practices in Nigeria, several strategies can be implemented. First, providing cultural awareness training for educators and school staff can enhance their understanding and sensitivity to diverse cultural backgrounds. Workshops and training sessions can help educators recognize and address their biases and develop a deeper appreciation for different cultural perspectives. Second, developing and implementing a culturally responsive curriculum that integrates elements of Nigeria's diverse cultures (Enemali & Jacob, 2018) is crucial. This involves incorporating traditional stories, songs, dances, and art from different ethnic groups to ensure students see their own cultural identities represented in the classroom. Third, engaging with local communities and parents (Ajayi & Akinwale, 2019) can enhance cultural context by incorporating community knowledge and practices into the educational process. Collaborating with community members as guest speakers or mentors can enrich the learning experiences for children. Additionally, utilizing inclusive learning materials that represent the cultural diversity of Nigeria (Okeke & Adeleke, 2021) can foster a sense of belonging among students and promote cultural appreciation.

Sociological Implications

The sociological implications of integrating cultural context in early childhood education for sustainable development in Nigeria are profound. By incorporating cultural elements, children develop a stronger cultural identity, leading to improved self-esteem and confidence. Emphasizing cultural diversity fosters social cohesion and inclusion, promoting a more harmonious and tolerant society. Preservation and transmission of traditional knowledge and practices safeguard cultural heritage and continuity. Involving parents, caregivers, and communities empowers them to support children's education, strengthening the bond between families and schools. Ultimately, these implications contribute to a culturally enriched and sustainable society in Nigeria.

Implications for Early Childhood Education and Sustainable Development in Nigeria

Integrating cultural context in early childhood education has significant implications for sustainable development in Nigeria. By embracing cultural diversity and tailoring education to the backgrounds of young learners, early childhood education becomes more inclusive and culturally responsive. This fosters a strong sense of cultural identity and pride among children, promoting holistic development in cognitive, social, emotional, and cultural competencies. Learning to appreciate and respect different cultures contributes to social cohesion and mutual understanding, creating a more unified and harmonious society. Additionally, incorporating traditional knowledge on environmental stewardship and sustainability instills environmental consciousness and responsibility in young minds. Preserving and transmitting cultural practices and values through education safeguards Nigeria's rich cultural heritage for future generations. Involving parents, caregivers, and communities empowers them to support and engage in their children's learning journey, forging strong bonds between families, schools, and the broader community. Ultimately, integrating cultural context in early childhood education contributes to a culturally enriched, socially cohesive, and environmentally conscious society, driving sustainable development for Nigeria's future.

Conclusion

Conclusively, the study highlights the significant influence of cultural context on early childhood education for sustainable development in Nigeria. Emphasizing culturally responsive teaching strategies and valuing diversity are crucial for creating inclusive learning environments. Integrating sustainable practices fosters responsible citizenship and contributes to national development goals. Policymakers and educators must prioritize cultural context in early childhood education to ensure equitable access and promote a brighter future for Nigeria. Continuous research

and collaboration are essential for providing effective, inclusive, and sustainable education for the nation's young learners.

Recommendations

Based on the findings of the study, the following recommendations:

1. Educational policymakers should prioritize cultural competency training for early childhood educators to create inclusive learning environments.
2. Educators should develop culturally relevant curricula that celebrate Nigeria's cultural diversity and promote understanding.
3. Nigerian universities should encourage collaboration with parents and communities to enrich children's learning experiences with cultural perspectives.
4. Early childhood curricula should integrate sustainable development education to foster responsible citizenship.
5. Policymakers should emphasize evidence-based policies to align with cultural context and the unique needs of young learners in Nigeria.

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RETHINKING EDUCATION FOR SUSTAINABLE DEVELOPMENT: A PARADIGM, DILEMMA AND SOLUTION

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Abstract

Educational Sustainability is a paradigm for thinking about a future in which environmental, social, and economic considerations are balanced in the pursuit of development and an improved quality of life. This study examines the extent at which education can be explored and be used as a tool to promote sustainability practices as the society and the world at large faces huge challenges. This paper will also deal with reorienting curriculum to address sustainability, principles of sustainability development, teaching techniques for educational sustainability, Delima and Solutions and conclusion.

Keywords: Rethinking, Education, Sustainability, Transformation, Reorienting Curriculum.

Introduction

Educational Sustainability is a paradigm for thinking about a future in which environmental, social, and economic considerations are balanced in the pursuit of development and an improved quality of life. These three spheres – society, environment, and economy are intertwined. For example, a prosperous society relies on a healthy environment to provide food and resources, safe drinking water, and clean air for its citizens. The sustainability paradigm is a major change from the previous paradigm of economic development with its damaging social and environmental consequences. Atguwu (2022) Until recently these consequences have been seen as inevitable and acceptable. However, it is now obvious that major damage or serious threats to the well-being of humans and the environment in pursuit of economic development have no place within the sustainability paradigm.

As a concept, sustainability responds to a growing concern about the adverse impact of technology and increases in the level of human degradation on the natural environment by societal activities in the past two centuries. Development became the guiding principle of countries across the world after the Second World War (Khataybeha, Subbarinia & Shurmana, 2010). Most of the initial optimism in the discussion about sustainability was the appreciation of an opportunity to re-evaluate current narratives on development. Paradigms, such as the radical departure from economic and growth proposed by “deep ecologists” (Lovelock, 2009; Capra, 2000)

Notwithstanding, when branching out the discussion on sustainability into the realms of education or policymaking, the core of “development” remains unchallenged. For example, the United Nations Education They justify this option as a matter of convenience Educational Sustainability Development is the terminology used frequently at the international level and within UN documents. Locally or nationally, the Educational Sustainability Development (ESD) effort may be named. Further, Tilbury and Wortman (2004) and UNESCO (2011) have identified the key traits of ESD to be attained: envisioning; critical thinking and reflection; systemic thinking and participatory cooperation. Of course, these are all desirable aspects of all aspects of education and business. The problem is that the absolute acceptance of “development” and its inclusion on the allegedly new “educational paradigm” should not be a matter of “convenience”, because at the heart of the definition of “education for sustainable development” remains the tension between an instrumental and regulatory approach and a more critical and radical questioning on education and ‘development’. Following this ease in the consideration of the educational implications of the new ideas, it is not surprising that

“education for sustainable development” has been focused on strategies and plans, hence following the traditional business rationale of one-dimensional goal set where aspirations are premised on the “notion that the future will be a progression. Similar appreciations of education for sustainable development are adopted by higher education institutions, as ways of addressing the increasing demand from (Drayson, Bone, Agombar & Kemp, 2013).

Reorienting A Curriculum To Address Sustainability

The [process](#) of [changing](#) the [aim](#) or [purpose](#) of the curriculum to suit the present situation of teaching and learning adaptable in the classroom situation. According to the United Nations Educational, Scientific and Cultural Organization (2012) reorienting a curriculum to address sustainability can take place at a classroom or national level. At the classroom level, teachers can begin by explicitly stating the link between the topic in the mandated syllabus and sustainability. For example: From simple statements such as these, pupils will build their conceptions of sustainability and their knowledge of it. Several tools to reorient a curriculum to address sustainability have been created. The *ESD Lens* “Review Tool 9: ESD integration in the curriculum” provides a way for analyzing the extent to which ESD is integrated in the curriculum at national and school levels. The *Education for Sustainable Development Toolkit* contains eight exercises for reorienting a curriculum to address sustainability and holding community forums to gather public opinion related to curricular change. “Project Y” has also been used widely to integrate sustainability into existing lesson plans and units. Project Y takes a gradual approach, introducing one or a few new items related to sustainability in each lesson. Over the course of a school year, the aggregate amount of sustainability taught and time on task (i.e. learning about sustainability) can be substantial. UNCS (2012).

The reorienting process can also occur at national levels or provincial/state levels in ministries of education where the mandated curricular are written. A national or provincial process should be conducted more systematically and thoroughly than a reorienting process carried out by a teacher working in isolation or by a small team of teachers working in a school. A national or state level process would include inviting stakeholders to a public participation process to gather input (e.g. statements of needs and desires as well as opinions) related to the reorienting process. In this way, a ministry will be modelling public participation and transparency, which are essential elements of sustainability. To reorient a curriculum to address sustainability, educational communities need to identify the knowledge, issues, perspectives, skills, and values central to sustainable development in each of the three components of sustainability: environment, society, and economy, and integrate them into the curriculum. The education community also needs to decide which of the many existing sustainability issues (e.g. biodiversity, climate change, equity, and poverty) will be part of the curriculum. Ideally, efforts to reorient education will be based on national or local sustainability goals. A properly reoriented curriculum will address local environmental, social, and economic contexts to ensure that it is locally relevant and culturally appropriate. In an effort to save time or resources, governments have imported curricula from other countries or regions. In the case of ESD, this is inappropriate, because local and national sustainability goals and local contexts will not be well targeted.

Principles of Sustainable Development

- People are entitled to a healthy and productive life in harmony with nature if Education is sustained.
- The right to development must be fulfilled so as to meet developmental and environmental needs of present and future generations in an equitable way by the inclusion of extra curriculum.
- Eradicating poverty and reducing disparities in living standards in different parts of the world are essential to sustainable development.
- Environmental protection is an integral part of the development process and cannot be considered in isolation from it.
- International actions in the fields of environment and development should also address the interests and needs of all countries. Educational policies and guideline.

- To achieve sustainable development and a higher quality of life for all people, countries should reduce and eliminate unsustainable patterns of production and consumption and promote appropriate demographic policies.
- Women play a vital role in environmental management and development. Their full participation is therefore essential to achieving sustainable development.
- Warfare is inherently destructive to sustainable development. Peace, development and environmental protection are interdependent and indivisible. These principles can guide the efforts of governments, communities and organizations to define sustainability goals and create programmes to help achieve those goals.

Teaching Techniques for Educational Sustainability Development

Storytelling

Telling stories to convey and illustrate sustainability ideas is an engaging form of teaching. Stories can be taken from current events, history, television programmes, literature, drama, and personal experience. Also, storytelling draws on the oral traditions of indigenous societies and folk art. Storytelling has been practised for generations as a means of entertainment, education or cultural preservation and to instil moral values among younger generations. Storytelling is an effective ESD pedagogy as the values reflected in traditional stories often contain the wisdom of the elders or stem from creation stories, which helps to impart respect for cultural heritage as well as the environment. Nisreen & Bushra (2017) is the use of stories or narration as a communication tool to value, share and capitalize on the knowledge of individuals. Story telling is a means for sharing and interpreting experiences Atta – Alla (2012)

Class Discussions

Class discussions allow for the transfer of information amongst pupils and from the pupils to the teacher, in addition to the traditional route from teacher to student. Student comes to the classroom with a wide variety of life experiences that can enrich the teaching of the mandated curriculum. Pupils can therefore contribute a great deal to discussions of sustainability with observations from their neighbourhoods about what is sustainable and what is not. Teachers can then incorporate these experiences into their lessons through class discussions that provide students with real life applications of concepts (Stthorn, 2006; Khalid, Muhamad, Asmaa & Wafa, 2018). Class discussion are valuable for developing critical thinking when students could know how to manage their ideas and then present them.

Simulations

Simulations are teaching/learning scenarios in which the teacher defines the context in which the pupils interact. The pupils participate in the scenarios and gather meaning from them. For example, pupils imagine they live in a small fishing village and have to learn how to manage the fishing stocks sustainably (i.e without depleting the fishing stocks or starving the people). Often, simulations are simplifications of complex abstract concepts. At the same time, because they are distillations of real-world situations, simulations give a sense of reality and thus engage and motivate learners of all ages (Weldman & Coombs, 2016). Stimulation can be particularly powerful when use in social environment to build student understanding of the role that ethnic play in everyday life.

Dilemmas of Educational Sustainability Development

Infrastructure

A. Inadequate Basic Infrastructure .Though the efforts of the Federal Government of Nigeria through its Millennium Development Goal {MDGs} and UBE programme are quite commendable in terms of the provision of school infrastructures and textbooks, vast majority of the schools across the federation still remain, dilapidated, with collapsed structures, roofs and inadequate classroom / office furniture. In many schools, the children are observed to take lessons sitting on bare classrooms floors or other rudimentary seats. Some are under trees, with no basic infrastructural facilities does not only hampers learning but serves to significantly lower the standards of education. In the last three to four decades, textbooks, exercise books, pencils / pens, school uniforms used to be provided free of charge. This is perhaps the thrust of the policy behind the current UBE programme for Universal, free and compulsory education for all at the Primary and JSS levels of education. As things now stand, the reverse is now the case, as the education is neither “free” nor universal for children for which it is

originally designed (Oke, 2017). Poor infrastructure shapes student outcomes, for instance schools that do not have windows and doors; it serves as a shelter to “bad boys” around the area. They urinate and defecate in the classroom, which is an obvious cause of disease to the students. This shows a lack of respect for education and for the community. Also, students are exposed to harsh weather, which cause them to fall sick and miss classes resulting to poor performance, teaching science subjects without a laboratory to perform necessary experiments undermines student engagement because they do not understand what the teacher is teaching

B. Poor Monitoring and Maintenance of Minimum Standard. Although government has established Inspectorate Services Divisions in various Ministries of Education at both the state and Federal levels, with the primary goal of setting, maintaining and improving standards in all aspects of the Nigerian school system; and ensuring uniform standard and quality control {NPE, 2015. p.60}, it is unfortunate that the activities of these monitoring arms of government leaves much to be desired. First, there is a kind of “square peg in a round hole” syndrome, whereby school principals are often ranked higher in functional status than the Inspectors of education, instead of the other way round. This kind of situation tends to make it difficult for such Inspectors to effectively discharge their assigned duties and responsibilities. In practical terms many Education Inspectors tend to succumb to the dictates of school principals and heads, even when such heads fail to adhere to prescribed minimum standards of education in their various schools (Durosaro, 2011).

C. Poor Funding. Generally, our educational system has been funded. This can be attested to by the progressive decline in budgetary allocation for Education over the year. Money is urgently needed but little or none is provided for purchases of instructional materials / equipment for use in various schools. The prompt payment of entitlements of teachers which could have used to boost academic excellence in schools has consistently been overlooked or delayed. For many years, many mission-run schools that provided qualitative education to Nigerians were taken over by state governments with the intended goal of providing better funding and infrastructural development. However, such schools were unfortunately reduced to pitiable levels of mediocrity and neglect due to low salaries, poor working environment and lack of incentives. The result was poor levels of academic performance by students. Efforts aimed at restoring teacher professionalism that could, in turn raise standards and enable the education sector to regain credibility have so far recorded limited success (Ademolekun, 2018).

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Remuneration

Rewarding an employee in the form of wage including allowances, increases the interest of the teacher in carrying out his/her duties, because it makes the teacher feel valued and respected. Teachers are not motivated to perform their duty because their wage is very poor. Also, the late payment of wage demoralises teachers and affects them in carrying out their duties.

School Practices

It was observed that the leadership in some of the schools follow the government policy/document rigidly in managing the affairs of the schools. They do not consider the needs of the immediate environment. However, the leadership felt that the government document is a foundational principle that can be developed depending on the environment or culture of people where one finds his/herself.

Learning and Teaching Resources

Clear expressions of disappointments are recorded by the teachers on the poor state of education in the country due to lack of learning and teaching materials. This affects mostly in the area of science, teaching science with inadequate resources does not allow the students to engage well with their learning, school environment needs to be simulative and conducive to learning, in that way students can be easily guided through the discovery of knowledge on their own. The importance of

learning with teaching aids cannot be overemphasized because they create a visual and interactive experience for the students. Add more facts with citation

Solutions to Educational Sustainability Development

Formal Curricula and Pedagogy

Formal curriculum and pedagogy are re-designed to address and support the goals of sustainable development as well as achieve the ESD objectives. This strand is very crucial in ensuring that education plays its role in creating awareness of sustainable development to the larger population. Themes of sustainable development and ESD need to be infused into the curriculum, and the approach employed in delivering these topics determines how well the students can apply classroom knowledge to the real-life situation.

Leadership Style

Leadership style is a leader's method of providing direction, implementing plans, and motivating people. The key holder within the school can act as either a motivator or a barrier for the implementation of educational rules in the school. Thus, this can be considered as a local bottleneck. During the observation in the schools, head teachers among others was the only head teacher that was not prepared to welcome any change in her school. During an interview with ahead teacher, she was asked if she would encourage any teacher or students who came up with innovative ideas in the school and she responded that she would not encourage unless the idea came from the state education board. Also, it was observed that her relationship with the teachers in the school was not cordial. According to Harris (2002), a capable leader develops realistic strategies to quickly create knowledge. Therefore, the successful implementation of a new educational trend will require responsible, and accountable leadership that is expert in both systemic educational change and sustainable development.

Active Participation

Active participation is a competence that student need to reach a level of awareness of themselves in reaction to what is been thought in the classroom. Students where there was a good relationship amongst the staff and the students, gave a favourable report about their teachers as fair, respectful, caring and encouraging and rated their peers as cooperative and friendly. The students were significantly more likely than those in the rural schools to make more favourable comments about their school and to describe the general atmosphere of their schools in an affirmative way. The students felt valued, cared for, respected and listened to in school, and they recognised that staff were genuinely concerned about their well-being. According to a study carried out by John-Akinola, Gavin, Higgins, and Gabhainn, (2013), school children reported that positive interpersonal relationships and feeling a 'sense of belonging' were two aspects of the children school experiences which were significant in contributing to their feeling as members of the school community. When the students were asked more generally what they liked about their school, responses from the urban school showed 'having friends', 'playground for football', and 'teachers'. The students said they prefer the new press club created by one of the teachers because it gives them an opportunity to discuss pressing issues.

Institutional Practice: Technical and Economic Aspects

Within this strand, the school needs to apply the principles and practice of sustainable development to its management and running of the school. The principles and practice exemplify the teachings given to the students about ESD in the formal curriculum or acquired through teaching and learning if they understand that sometimes formal teaching happens outside the classroom environment, for example, field trips. The choices that schools make, which are compatible with the aims and principles of sustainable development, where necessary should be made known to the students and advantages of using such measure to help them, therefore, make their sustainable development informed decisions in the future.

Monitoring and Evaluation Monitoring and Evaluation is a combine term for the processes set up by the school, with the goal of improving teaching and learning in the school system

Within the monitoring and evaluation strand, the school has the opportunity to assess the effectiveness of policy and measures carried out within the school. Also, monitoring and evaluation create an opportunity to monitor the approaches to teaching and learning and knowledge acquired by the students. Monitoring and evaluation strand is the distinguishing feature of the school. Most

importantly, this feature ensures that all measures put in place in the school in achieving sustainable development are as much as possible effective and relevant to the school context.

A focus on methods and techniques needs to be replaced by a new conception of sustainable assessment required for lifelong learning. Sustainable assessment encompasses the knowledge, skills and predispositions required to support lifelong learning activities. If assessment tasks within courses at any level do not support lifelong learning, then they cannot be regarded as contributing to sustainable assessment. Though assessment for certification purposes is reasonable, however, ensure that learning has influenced action and that students have become active lifelong learners, they also need to assess tasks (Mogensen and Schnack, 2010).

1. Proper Implementation of Policies and Laws. The currently operative National Policy on Education is the major Statutory document that spells out the key policies and implementation strategies of the Federal Government on Education, alongside the UBE Act of 2004 and other international Conventions and Charters, {such as Education for ALL, MDGs} provide the principal legal documents through which the Federal Government of Nigeria should promote and implement a regime of 'Better Education for All'. But unfortunately, most of these pronouncements and laws are not fully implemented. For instance, both the National Policy on Education and the blue print of the Universal Basic Education {UBE} programme state that "Education shall be free at all levels., but the reality on ground is that increasingly exorbitant school fees are still being paid even at the primary school level. This obviously negates the provision of the Nations educational policies and laws which should be urgently redressed (Ogundele, 2019).

2. Increase Funding for Education It is important to restate that Nigeria has sufficient financial resources to ensure adequate financing of Education at All levels. Ademolekun(2018) has reported that about \$400 billion oil money was either out rightly stolen or mismanaged in Nigeria between 1960 and mid-2018 of which \$ 250 billion was wasted between 1999 and mid-2018. The author also reported that between 2016 and 2019, Federal Government Ministries, Departments and Agencies {including law-enforcement units} failed to remit about N4 trillion to the Federation account. That translates to N1 trillion per annum or 25% of the annual budget for those years (Oyedeki, 2013)

Conclusion

Educational sustainability is an urgent developmental task for the society, it is attracting increase attention. Therefore, higher education is called upon to deal theoretically, conceptually, methodologically, critically, and reflectively with the associated challenges and the processes and conditions. Education is seen as an agent of change and alternatively as a subject of change. It must explore all the necessary requirements for the attainment of educational sustainability.

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**STUDENTS' PERCEPTION OF THE UNIVERSITY OF NIGERIA
NSUKKA'S ENTREPRENEURSHIP EDUCATION PROGRAMME**

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Abstract

This study investigated the Entrepreneurship Education Programme of University of Nigeria Nsukka (UNN) as perceived by Science Education Students. The study was conducted in UNN situated at Nsukka Local Government Area. Using a descriptive survey design, three research questions were posed. A sample of 174 final year Science Education students was purposively used. Data were collected using a three-clustered structured questionnaire, titled: Questionnaire on Science Education Students' Perception of Entrepreneurship Education Programme (QSESPPEP). The instrument had internal consistency reliability measures of 0.84, 0.82, 0.71 for clusters A, B and C respectively with an overall reliability coefficient of 0.84 determined using Cronbach Alpha. The data collected were analyzed using mean and standard deviation. Findings of the study showed that Entrepreneurship Education Programme in UNN is perceived by students to be adequate, some resources are perceived to be adequately available for effective teaching of Entrepreneurship Education Programme and the available resources are effectively utilized in teaching of Entrepreneurship Education Programme except that students are not often taken to Entrepreneurship laboratory/workshops for exploration/simulation and some basic materials for practical activities/business simulations are not enough. Recommendations were made among which is that the teaching of entrepreneurship education programme should be practically based to enhance knowledge transfer and entrepreneurial skills acquisition among students irrespective of areas of specialization.

Keywords: entrepreneurship, perception, entrepreneur, science education

Introduction

Nigeria, like many other developing countries, sees education as the best way to start and keep national development going. The national concept of education in Nigeria (Federal Republic of Nigeria [FRN], 2013) calls for broad, practical, and high-quality education that meets the needs of society. Such an education that meets the needs of society will foster education for sustainable development. The education for sustainable development allows human being to acquire the knowledge, skills, attitudes and values necessary to shape a sustainable future (United Nations Educational Scientific and Cultural Organizations [UNESCO], 2014). Entrepreneurship education could be said to be among the education for sustainable development as it aims at poverty reduction. The university system added an entrepreneurship education course to among other things reduce poverty. It was made so that graduates could support themselves on their own, no matter what they did for a living, so that they could contribute as much as possible to the growth of the nation. In other words, education for employment and wealth creation may not be fully achieved without entrepreneurship education programme. Recent trends, however, raise concerns, as youth unemployment has scaled from 18.8% in the third quarter of 2017 to 23.1% in the third quarter of 2018, despite the importance of entrepreneurship education to the national economy and the wellbeing of Nigerian youth (National Bureau of Statistics [NBS], 2023). Moreover, approximately 47.40 percent of Nigerian youths are unemployed (NBS, 2019). According to Omoyele, Oloke, Olabisi, and Aderemi's study in 2022, youth unemployment is on the rise, particularly in Nigeria and other emerging nations. The jobless condition of most Nigerian youths has made some young people resort to banditry, kidnapping, armed robbery, and thuggery, among other crimes. This is also an indication that most Nigerian graduates are depending on white-collar employment as their primary source of income. As a result, it could be possible that the goals for which the entrepreneurship education programme was introduced in the higher educational institutions are still unmet. So, it is necessary for

this study to look into how science education students perceive the entrepreneurship education programme.

Entrepreneurship education is a crucial programme that equips students with the skills and knowledge necessary to seize and transform opportunities for self-reliance and national development. It is essential for educating students for the twenty-first century market and is of immense relevance (Okoh, 2015). Participants in the programme are expected to become job creators, fostering the growth of entrepreneurial aptitude (United Nations Educational, Scientific, and Cultural Organization [UNESCO], 2000; Zimmerer & Scarborough, 2006; Bischof, Volkmann, & Audretsch, 2018). This programme helps in job development and reduces graduate unemployment in Nigeria. Entrepreneurship education programmes promote improvement in living standards through innovation, job opportunities, economic growth, and foreign exchange preservation (Eke, Igwesi & Orji, 2011; Nwekeaku, 2013; Anukam, 2013; Teshome, 2014). The National Universities Commission introduced the entrepreneurship education programme (NUC) in Nigeria, and added it to the curricula of Nigeria's higher education institutions which mandates all students to take Entrepreneurship Education (EED) as a required course to graduate successfully from an academic programme (Aliu, 2008). This programme helps students achieve two aspirational objectives of higher education: contributing to the nation's development and developing their physical and mental capacities to become independent and useful members of society (FRN, 2004).

Also, taking entrepreneurial courses encourage students to think creatively and use what they have learned for the advancement of society (NUC, 2007). Since entrepreneurship courses train students for job creation and global competitiveness, they will help to address various socio-psychological issues and delinquencies that students may experience as a result of financial hardship (Ademiluyi, 2007). Thus, Entrepreneurship Education programme is valued and was made compulsory for undergraduate students, including those in the Department of Science Education at the University of Nigeria, Nsukka.

Science education exposes students to both pedagogy and scientific knowledge, allowing them to expand their skills in the classroom, research, and curriculum development. Perception is a crucial aspect of entrepreneurship education because a positive perception increases the likelihood of starting one's own business. Perception is the process or outcome of becoming aware of things, relationships, and events through the senses, which includes actions like recognizing, observing, and discriminating, (American Psychological Association [APA], 2022; Kendra, 2014). The way students perceive an entrepreneurial programme reflects how they evaluate and interpret the teaching and learning procedures used in entrepreneurship education (Barnes & Lock, 2013). The self-perception theory of Bem (1967) suggests that people learn about their own attitudes, feelings, and internal states in part by inferring them from observations of their own overt behaviour and the context in which that behaviour occurs. The diverse ways students process information may lead to varying opinions on the adequacy of the Entrepreneurship Education Programme among others in UNN. There have been some studies on how students perceive entrepreneurship.

The majority of students for instance are satisfied with the course material of the university's entrepreneurship course, according to a study by Isibor and Adekunle (2019) on students' perceptions of the effectiveness of entrepreneurship education. However, the students' perceptions of the programme's suitability, the availability of resources, and their use of them for effective entrepreneurship education programme instruction were not taken into account in this study. According to a study by Ugwude (2022) on the availability and suitability of resources for entrepreneurship education in universities in south-east Nigeria, there were insufficient resources to carry out the programme. In addition, they noted that certain colleges lacked appropriate workshops and computers, as well as a dedicated building for entrepreneurship. They did not take into account how students felt about the UNN entrepreneurship education programme's adequacy, resource availability, and usage for effective teaching. Okolocha and Ordu (2018) found that the physical facilities and equipment that were available were insufficient and only moderately used for teaching entrepreneurship in business education in colleges of education (COEs) in South-South Nigeria (SSN). They did not take into account how students perceived the adequacy of the entrepreneurship programme, and their study was conducted in college of education that is not a university such as UNN.

Based on the foregoing, students including those in the Department of Science Education, University of Nigeria, Nsukka have been offering the Entrepreneurship Education programme since its introduction into the curricula of universities by the National Universities Commission. They ought to have firsthand knowledge that will enable them to determine whether the Entrepreneurship Education Programme is really adequate in achieving its goals of introduction into the universities among other

things. This necessitated this study, which examined students' perception of entrepreneurship education programme of the university of Nigeria Nsukka.

The study specifically aimed to:

- determine the perception of Science Education students on the adequacy of entrepreneurship education programme in UNN.
- find out the perception of science education students on the availability of resources for effective teaching of entrepreneurship education programme in UNN.
- ascertain the perception of science education students on the extent to which available resources are utilized for the teaching of entrepreneurship education programme in UNN.

The following research questions guided the research study:

- (a.) What is the mean rating of science education students on the adequacy of entrepreneurship education programme in UNN?
- (b.) What is the mean rating of science education students on the availability of resources for effective teaching of entrepreneurship education programme in UNN?
- (c.) What is the mean rating of science education students on the extent to which available resources are utilized in teaching of entrepreneurship education programme in UNN?

Method

A descriptive research design was used in the study. Descriptive research design aims at collecting data on, and describing in a systematic manner, the characteristics, features or facts about a given population (Nworgu, 2015). The design guided this study in collecting data from the sample and analysed the same data in a systematic way concerning students' perceptions of the University of Nigeria Nsukka's entrepreneurship education programme. The study was conducted in the Department of Science Education, Faculty of Education, University of Nigeria that is located in Nsukka Local Government Area of Enugu State. Science Education Department has five programme areas/units at the undergraduate level which includes: Biology, Chemistry, Physics, Mathematics and Integrated Science Education. The population of the study included all 327 students in the Department of Science Education, UNN, comprising 153 third-year students and 174 final-year students who respectively are presently enrolled in the course, and who have completed the requirements, and are preparing to graduate.

The 174 final-year students from the 2020–2021 academic year made up the sample for this study. The sample was purposively used; comprising 68 Biology, 53 Chemistry, 15 Integrated Science, 13 Mathematics, and 25 Physics students. This sample of students was chosen because they had successfully completed the two entrepreneurship education courses (CEDR 341 and 342) that were requirements for graduation. Students, as a result, have sufficient experiences that will influence how they perceive the UNN's entrepreneurship education programme. Data for the study were gathered using a 4-point Likert scale-structured questionnaire called the Science Education Students' Perception of Entrepreneurship Education Programme (QSESPPEP), which was developed by the researchers. It has twenty-two items arranged in three clusters A through C. Each cluster offers four possible responses. For clusters A and B, the ratings are SA (strongly agree), A (agree), D (disagree), and SD (strongly disagree); however, in cluster C, the ratings are VHE (very high extent), HE (high extent), LE (low extent), and VLE (very low extent). In scoring the instrument, SA/VHE received a score of 4, A/HE received a score of 3, D/LE received a score of 2, and SD/VLE received a score of 1. As a result, 2.5 is the average acceptance score.

Three specialists from the Biology, and Measurement and Evaluation units of the Department of Science Education, UNN, validated the instrument. Twenty final-year students of the Department of Educational Foundations who were not included in the study's sample but shared characteristics with it, such as having taken CEDR 341 and 342, which were offered at the 300 level, and are now in their final year in the same faculty and university, were given copies of the instruments to test their reliability. Because the items were polychotomous, the instruments were scored and subjected to an internal consistency reliability test using Cronbach's alpha. It produced reliability values of 0.84, 0.82, and 0.71 for clusters A, B, and C, respectively; with an overall reliability value of 0.84 which Nworgu (2015) stated to be quite high.

After receiving approval from the Head of Department, the researchers delivered copies of the validated questionnaires to the respondents via the class representatives of each programme area. The researchers later collected them from the class representatives of the units, who recorded a 100% return of the questionnaires. The research questions were answered using the mean and standard deviation. The acceptance mean is 2.50. However, mean values between 1.00 and 1.49 are of very low

extent, 1.50 and 2.49 are of low extent, 2.50 and 3.49 are of high extent, and 3.50 and 4.00 are of very high extent in the decision-making of cluster C.

Results

Table 1: Mean and Standard Deviation Ratings of Students on their Perception of the Adequacy of Entrepreneurship Education Programme in UNN

S/N	Item Statement	SA	A	D	SD	N	Mean	Std. Dev.	Decision
	Entrepreneurship Education programme is adequate in:								
1.	giving students requisite entrepreneurship knowledge	155	17	2	-	174	3.88	0.36	Accepted
2.	enabling students acquire basic entrepreneurial skills	145	24	4	1	174	3.79	0.49	Accepted
3.	enabling students become self-reliant	150	20	3	1	174	3.83	0.46	Accepted
4.	enabling students become self-employed after graduation	72	91	8	3	174	3.33	0.65	Accepted
5.	reducing level of unemployment in the society	64	99	5	6	174	3.27	0.68	Accepted
6.	helping students to have source of income before graduation	62	94	10	8	174	3.21	0.75	Accepted
7.	ensuring poverty alleviation among the students	57	87	21	9	174	3.10	0.81	Accepted
8.	reduction of economic crisis in Nigeria	53	85	18	18	174	2.99	0.91	Accepted
9.	preparing students to identify business opportunity	140	24	5	5	174	3.72	0.66	Accepted
10.	preparing students to use business opportunity	134	31	5	4	174	3.69	0.64	Accepted
	Grand					174	3.48	0.43	Accepted

Table 1 reveals that the mean ratings of Science Education students on all the items as regards to their perception of the adequacy of Entrepreneurship Education programme in UNN range from 2.99 to 3.36 and the standard deviation scores range of 0.36 to 0.49. Each of the mean scores shown above was above the acceptable mean of 2.50. Also, their corresponding standard deviation scores were small. The grand mean was 3.48 and its grand standard deviation score was 0.43. This therefore implies that Science Education students generally had positive perception of the adequacy of Entrepreneurship Education programme in UNN.

Table 2: Mean and Standard Deviation Ratings of Science Education Students' Perception of the Availability of Resources for Effective Teaching of Entrepreneurship Education Programme in UNN

S/N	Item Statement	SA	A	D	SD	N	Mean	Std. Dev.	Decision
	There are adequate:								
1.	standard textbooks for effective teaching of entrepreneurship education programme	131	27	13	3	174	3.64	0.69	Accepted
2.	workbooks for effective teaching of entrepreneurship education programme	128	35	10	1	174	3.67	0.61	Accepted
3.	entrepreneurship laboratory/workshops for exploration/simulation depending on students' areas of specialization	6	73	72	23	174	2.36	0.75	Rejected
4.	trained personnel to guide the students in entrepreneurship practical activities	98	61	11	4	174	3.45	0.72	Accepted
5.	basic materials for practice	19	78	58	19	174	2.56	0.83	Accepted
6.	machines and other necessary facilities for practical activities/business simulations	16	88	45	25	174	2.55	0.85	Accepted
	Grand					174	3.04	0.40	Accepted

Table 2 discloses that items 1, 2, 4, 5 and 6 had mean scores of 3.64, 3.67, 3.45, 2.56 and 2.55 respectively and corresponding standard deviation values of 0.69, 0.61, 0.72, 0.83 and 0.85 respectively. The stated mean scores are above the cut-off mean of 2.50. However, item 3 has a mean score of 2.36 and a standard deviation value of 0.75. The stated mean value of item 3 is below the cut-off mean of 2.50. The grand mean was 3.04 and the corresponding small grand standard deviation value was 0.40. It therefore implies that Science Education students have positive perception of the availability of resources for effective teaching of Entrepreneurship Education Programme in UNN except in item 3 where there was a decline in the mean rating that entrepreneurship laboratory/workshops are available for students' exploration depending on their areas of specialization.

Table 3: Mean and Standard Deviation Ratings of Science Education Students on the Extent to which Available Resources is Utilized in Teaching Entrepreneurship Education Programme in UNN

S/N	Item Statement	VHE	HE	LE	VLE	N	Mean	Std. Dev.	Decision
1.	students use the available standard textbooks for studying of entrepreneurship education programme in UNN	128	36	7	3	174	3.66	0.64	Very High Extent
2.	students are meant to solve applied questions in the entrepreneurship workbooks	127	31	13	3	174	3.62	0.70	Very High Extent
3.	students are often taken to entrepreneurship laboratory/workshops for exploration/simulation	14	47	91	22	174	2.30	0.79	Low Extent
4.	students are being guided effectively by trained personnel in entrepreneurship practical activities	114	28	17	15	174	3.39	0.98	High Extent
5.	students have enough basic materials which they use in practical activities/business simulations	8	22	93	51	174	1.93	0.78	Low Extent
6.	students practice effectively with machines and other necessary facilities	11	9	29	125	174	1.46	0.86	Very Low Extent
Grand						174	2.73	0.44	Accepted

Table 3 reveals that items 1, 2 and 4 have mean scores of 3.66, 3.62 and 3.39 respectively and with corresponding standard deviation values of 0.64, 0.70 and 0.98 respectively. The stated mean values are above the cut-off mean of 2.50 and are on a very high extent except item 4 that is on a high extent. However, items 3, 5 and 6 have mean values of 2.30, 1.93 and 1.46 respectively and the corresponding standard deviation scores of 0.79, 0.78 and 0.86. respectively. The stated mean scores are below the cut-off mean of 2.50 and are within the ranges of low and very low extent. The grand mean and the grand standard deviation values were 2.73 and 0.44 respectively. From the grand mean score therefore, Science Education students have positive perception on the extent to which available resources are utilized in teaching of entrepreneurship education programme in UNN except in items 3, 5 and 6.

Discussion

The results showed that science education students believe that entrepreneurship education programmes are sufficient in providing students with the necessary entrepreneurship knowledge, assisting them in acquiring fundamental entrepreneurial skills, helping them become independent and self-employed after graduation, lowering the level of unemployment in the community, assisting students in having a source of income prior to graduation, ensuring the alleviation of poverty among the students, and lowering the economic crisis in Nigeria. These findings support the finding by Isibor and Adekunle (2019), that the majority of students are satisfied with the course contents (curriculum) of the university's entrepreneurship course. This explains the course's suitability and the scope's comprehensiveness in preparing students for independence as well as for the nation's economic development and expansion.

In addition, Science Education students disagreed that there were enough entrepreneurship labs and workshops available for students to explore or simulate, depending on their areas of specialty, for the successful teaching of the Entrepreneurship Education Programme. This corroborates the

findings of the study by Okolocha and Ordu (2018) that inadequate physical facilities and equipment are present for the instruction of entrepreneurship programmes. Also, the results are consistent with the research done by Ugwu (2022), which found that insufficient funds were available to buy and maintain facilities, guarantee a consistent supply of power, as well as to oversee employees for entrepreneurship instruction. Although there is a building (the entrepreneurship block) that houses a workshop, lecture hall, and lecturers' offices, more entrepreneurship laboratories and workshops should be made available to students in order to encourage exploration and simulation in accordance with students' areas of specialization, boost their interest, and enable them to have enough hands-on experience to improve their efficiency in the programme.

Finally, science education students have positive perceptions of the extent to which some available resources are utilized in the teaching of the entrepreneurship education programme at UNN, but rated on a low and/or very low degree, that students are taken to entrepreneurship laboratories and workshops for exploration and simulation, have enough basic materials that they use in practical activities, and practice effectively with machines and other necessary facilities. This result is consistent with Okolocha and Ordu's (2018) study that the use of equipment and physical facilities for entrepreneurship instruction is only moderate. This may be due to the fact that the mandatory nature of the entrepreneurship education programme attracts a large number of students, which has a detrimental impact on how effectively particular resources are used to teach the course. It is crucial that students receive enough exposure to the tools available for entrepreneurship education. With the exposure, students gain hands-on experience that improves learning transfer and is geared toward sustaining self-reliance, lowering unemployment, raising per capita income, and increasing the nation's gross domestic product.

The exposure also ensures that entrepreneurship is taught practically in terms of developing workable business concepts, identifying market gaps and possible clients for business ideas, participating in business startups throughout the programme, and participating in product developments. In essence, this type of instruction emphasizes practical skills and knowledge that students may use to successfully launch and manage their own businesses irrespective of their disciplines.

Conclusion

In conclusion, Entrepreneurship Education Programme in UNN is perceived by students as being adequate, some resources are perceived to be adequately available for effective teaching of Entrepreneurship Education Programme and the available resources are effectively utilized in teaching of Entrepreneurship Education Programme except that students are not often taken to Entrepreneurship laboratory/workshops for exploration/simulation and some basic materials, machines or facilities for practical activities/business simulations are not enough perhaps, because of high students' enrolment in the course as a compulsory/major course.

Recommendations

The following recommendations are made:

- Lecturers should ensure that entrepreneurship education programme is taught in such a manner that it practically equips students irrespective of areas of specialization on how to set up and run their own businesses effectively thereby reducing unemployment and poverty.
- In courses such as Biology Special Methods, lecturers should expose and guide student-teachers towards developing entrepreneurial skills needed in local instructional materials production, herbarium technique, establishment of mini-Biology laboratory, and establishment of small-scale animal farms such as poultry farm among others.
- Government should supply universities with adequate facilities for effective teaching of entrepreneurship education programme.
- The teaching of entrepreneurship education programme at the University of Nigeria, Nsukka should be practically based to enhance knowledge transfer and entrepreneurial skills acquisition among students irrespective of areas of specialization.
- The lecturers/facilitators who are the implementers of the entrepreneurship education curriculum should be well trained and professionally equipped to impart the students successfully.

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**MANAGEMENT OF SECONDARY SCHOOLS' HUMAN RESOURCES
FOR QUALITY ASSURANCE AND SUSTAINABLE DEVELOPMENT
IN ENUGU STATE, NIGERIA**

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Abstract

This study investigated management of secondary schools' human resources for quality assurance and sustainable development in Enugu state, Nigeria. Three research questions and three null hypotheses guided the study. Descriptive survey design was adopted for the study. The population of this study comprised 293 public secondary schools in Enugu state. The sample size was 618 principals and teachers drawn using stratified simple random sampling technique. Researchers developed questionnaire titled "Management of Secondary Schools Human Resources Quality Assurance Sustainable Development Questionnaire" (MSSHRQASDQ) was used to collect data for this study. The instrument was face validated by three experts and Cronbach alpha was used to test the reliability which yielded an overall reliability index of 0.78. Descriptive statistics (mean and standard deviation) were used to answer the research questions while t-test statistics was used to test the hypotheses at 0.05 level of significance ($p > 0.05$). The findings of this study revealed among others that; in-service training such as conferences, seminars, orientations, skill acquisition programmes: utilization of motivational techniques such as praise, non-monetary appreciation, awards, regular remuneration, promotion, respect for teachers by the administration, discipline by positive reinforcement, conducive working environment and utilization of instructional supervision such as regular classroom visitation, proper guidance, counseling, giving feedback, among others for improved students' performance in their studies, quality assurance and sustainable development. Based on the findings, it was recommended that Government should use in-service training as a motivation package for teachers for increased productivity, quality assurance and sustainable development.

Keywords: Management, secondary schools, Human resources, Quality assurance, Sustainable development.

Introduction

Production takes place in an organization and human resources are the instrument used to effectively achieve this goal. For resources to be properly organized to achieve production goals in an organization, management has to be involved. According to Unachukwu and Okorji (2014), management is the task of getting work done through the efforts of the people and the available resources to obtain results in an organization. Management is the systematic process of using available human and material resources for the achievement of individual and group's desired goals (Edikpa, Nwabueze & Iremeka, 2017). According to Edikpa, Nwabueze & Chukwuma (2018), management in educational setting is the process of harnessing human, material, finance and time resources for the achievement of educational goals of effective teaching and learning. Akumah (2018) observed that the task of management focuses on activities concerning how an overall organization can be structured in order to be able to achieve desired results. Operationally, management means the systematic process of handling human resources (tutorial and non-tutorial staff) in secondary schools for increased productivity, quality assurance and sustainable development.

Management is the art or science of performing work with the available resources and achieves result. Udey & Bassey (2018) opined that management is the coordination of all the human and material resources within the organization through the process of planning, organizing, directing and controlling in order to achieve the desired objectives. Planning is the first step in management functions which is the process of preparing or arranging a set of decisions for future actions directed at

achieving goals and objectives maximally (Nwogbo, 2014). Planning human resources development programmes such as in service training for educational administrators can serve as a blueprint for improved students academic performance and quality assurance. After the planning stage which determines the course of action comes the organization of the motivational strategies towards achieving the planned desired results.

Organizing is part of management that is concerned with relating all the components of an organization in to a whole so as to achieve a set goal. According to Okorie (2015), organizing entails identifying what to be done, arranging them into roles for individuals and motivating the employees to accomplish the goals. Motivation in education is a management function which when organized, stimulates employees to accomplish laid down educational goals for improved students academic performance and quality assurance. Motivation is goal oriented and aimed at mounting certain pressure on educational administrators to initiate, sustain and direct their instructional activities for improved teaching, learning and quality assurance for sustainable development (Nwabueze, Edikpa & Chukwuma, 2018). Some of the motivational strategies used by educational administrators include praise, non-monetary appreciation, awards, regular remuneration, promotion, respect for teachers by the administration, discipline by positive reinforcement, conducive working environment, among others (Uchendu, Anijaobi-Idem, & Nkama, 2013). In this study, organizing is the process of stimulating educational administrators through the use of the above mentioned motivational strategies to enhance effective teaching, improved students academic performance and maintain quality assurance. After organizing, arranging the work to be done and motivating employees to achieve the desired results, there is a need for proper co-ordination towards realization of objectives.

Co-ordination is the task of harmonizing the activities of various units of the organization. According to Ezeugbo (2014), co-ordination ensures team work and is the function of school administrators to co-ordinate all the activities of the various units within the school especially instructional supervision. Since employees are interdependent in the schools, the school administrators owe it as apoint of duty to coordinate their activities to eliminate conflict and ensure effective teaching and learning. Obi (2013) identified some of the instructional supervision strategies to be coordinated in the schools to includeregular classroom visitation, proper guidance, and counseling, giving feedback, among others for improved students' performance in their studies, quality assurance and sustainable development. Operationally, co-ordination is the process of harnessing the instructional supervisory roles of educational administrators for improved academic performance and quality assurance which can only be achieved through effective human resources.

Human resources are individuals working in an organization who carry out the tasks of harmonizing and seeking to match the expectations, needs and the objectives of the employees with that of the organization for the achievement of the desired goals of the organization. According to Chukwuma (2022), human resources are individuals working in an organization who are endowed with a range of abilities, talents and attitudes and these individuals in the organizationtherefore, become "human resources" by virtue of the roles they perform in the organizations and their participations in the achievement of the organizational objectives. Okonkwo (2016) opined that human resource constitutes the active agents that harness and combine financial and material resources towards the realization of educational goals. This means that individuals' collective abilities and experiences make significant contribution towards the success of an organization. Human resources are trained manpower in an organization whose combined efforts bring results through the use of available material and financial resources (Chike-Okoli, 2013) Operationally, human resources are principals and teachers working in our secondary schools who are faced with the tasks of harnessing the available human and material resources in the schools for effective teaching and learning, improved students academic performance, quality assurance and sustainability.

Quality assurance is an effective method of achieving and maintaining desired standards. According to Abraham (2019), quality assurance is administrative and procedural activities that are implemented in a system in such a way that all the requirements and goals for a product, service or activity are fulfilled. Chukwuma, Ezenwaji, Eneh & Adepoju (2014) observed that quality assurance is a planned and organized process in educational system which is learner centred approach. Osakwe (2016) opined that quality assurance is critical and depends on adequate planning, implementation and monitoring. This implies that quality assurance is proper monitoring and value judgement of the various parts of the programmes in educational system and policies so as to maximize the objectives of quality assurance. Operationally, quality assurance is a mechanism in education which ensures that instructional activities received by the learners are for efficiency, by making the individuals useful for self-development and productive both in the educational setting and in the society at large.

The federal government of Nigeria has formulated many policies that could bring about students' academic improvement, quality assurance and sustainable development but it seems not working in educational sector due to school administrators' individual differences. Consequently, in the secondary schools, the principal is the chief executive of the school who is charged with the responsibility of planning for in-service training of employees, effective supervision of instructions and motivation of staff for improved academic performance of students, quality assurance and sustainability development. If the teachers are not well motivated, effective teaching will be adversely affected and effective learning may not be achieved. Negligence in the improvement of teaching through improper motivation of teachers, lack of plan for in-service training by the principals can go on unnoticed indefinitely. This may result to low quality of instructions and invariably, lack of quality assurance and sustainability development. This can also result to teachers unwillingness to participate in school activities, unexpected and non-stimulating teaching, massive failure of students in examinations and production of students who cannot be productive in the labour market and society at large.

However, for quality teaching and learning to be achieved, there is every need to plan in-service training of teachers to acquire knowledge on the new trends in education and organize good accommodation, learning environment and other motivational packages for individuals involved in teaching and learning. This is because improper motivation of teachers can negatively affect their job performances leading to students' poor academic performances, lack of quality assurance and sustainability development. Therefore, this study seeks to investigate the extent principals manage human resources in secondary schools for quality assurance and sustainability development.

Purpose of the Study

The aim of this study is to investigate management of human resources in secondary schools for quality assurance and sustainability development. Specifically, this study sought to:

- 1) Identify the extent to which principals plan in service training of teachers for quality assurance and sustainability development in Enugu state.
- 2) Find out the extent to which principals organize motivational strategies for teachers for quality assurance and sustainability development.
- 3) Determine the extent to which principals coordinate supervision of teachers' instructions for quality assurance and sustainability development in Enugu state.

Research Questions

The following research questions guided the study

- 1) What is the extent to which principals' plan in service training for teachers for quality assurance and sustainability development in Enugu State?
- 2) To what extent do principals organize motivational strategies for teachers for quality assurance and sustainability development in Enugu State?
- 3) To what extent do principals coordinate supervision of teachers' instruction for quality assurance and sustainability development in Enugu State?

Hypotheses

The following hypotheses were formulated to guide the study at 0.05 level of significance.

H₀₁: There is no significant difference between the mean scores of principals and teachers on the extent to which principals' plan in service training for teachers for quality assurance and sustainability development in Enugu State

H₀₂: There is no significant difference between the mean scores of principals and teachers on the extent to which principals organize motivational strategies for teachers for quality assurance and sustainability development in Enugu State.

H₀₃: There is no significant difference between the mean scores of principals and teachers on the extent principals coordinate supervision of teachers' instructions for quality assurance and sustainability development in Enugu State

Methodology

The design for the study was a descriptive survey design. The area of the study was Enugu state, Nigeria. The population of the study included all the 293 public secondary schools in Enugu state. There are 659 principals and teachers in public secondary schools in Enugu state. This implies 293 principals and 6298 teachers. A sample size of 93 principals and 620 teachers were drawn from

the 93 secondary schools using stratified random sampling technique. This represented 9.4% of the population. The instrument used in this study was researchers developed questionnaire titled: Management of Human Resource Secondary School Quality Assurance Sustainability Development Questionnaire (MHRSSQASQ). The questionnaire was divided into 2 sections: section A comprised of the demographic information of the respondents. Section B comprised of questionnaire items based on the variables. The instrument was placed on a modified 4-point Likert rating scale from Very great extent (VGE), Great extent (GE), Little extent (LE) and Very little extent (VLE) and were used to collect data for analysis. The instrument was face validated by three experts, reliability tested with Cronbach alpha which yielded an overall reliability index of 0.78. Mean scores and standard deviation were used to answer the research questions; a criterion mean of 2.50 was used as a benchmark for the responses of the respondents. Responses within 2.50 and above are accepted while responses below 2.50 are rejected. Z-test was used to test the hypothesis at 0.05 level of significance. A table value of +_1.96 was obtained and the acceptance or rejection of the null hypotheses depends on the Z-test and the table value. If Z-test > table value, the null hypothesis is rejected and vice versa.

Results

Research question one: What is the extent to which principals plan in-service training for teachers for quality assurance and sustainability development in Enugu state?

Table1: Mean scores of principals and teachers on the extent to which principals plan in-service training for teachers for quality assurance and sustainability development.

S/N	Extent to which principals plan in-service training for teachers	Principals		Teachers		Mean set	Decision
		Mean	SD	Mean	SD		
1	Seminars	3.30	0.72	3.08	0.43	3.19	Accept
2	Workshops	3.23	0.74	3.08	0.44	3.14	Accept
3	Conferences	3.03	0.74	3.02	0.43	3.04	Accept
4	Exhibitions	2.85	0.76	3.01	0.43	2.94	Accept
5	Orientations	3.21	0.73	3.06	0.42	3.12	Accept
	Aggregate Mean	3.12	0.74	3.05	0.43	3.09	Accept

Table 1 above showed the mean scores and standard deviation of principals and teachers on the extent to which principals plan in-service training for teachers for quality assurance and sustainability development. Principals and teachers accepted all the items on the table with high mean scores greater than the criterion mean of 2.50. The aggregate mean of 3.12 for principals and 3.05 for teachers showed the extent principals plan in-service training for teachers to maintain quality assurance and sustainability development by involving teachers in training/development programmes such as seminars, workshops, conferences, exhibitions and orientations, to update their knowledge, improve students’ academic performance and maintain quality assurance.

Research Question Two: To what extent do principals organize motivational strategies for teachers for quality assurance and sustainability development in Enugu State?

Table 2: Mean scores of principals and teachers on the extent principals organize motivational strategies for teachers for quality assurance and sustainability development.

S/N	Extent to which principals organize motivational strategies for teachers	Principals		Teachers		Mean set	Decision
		Mean	SD	Mean	SD		
1	Praise	3.25	0.72	3.31	0.39	3.28	Accept
2	Appreciation	3.22	0.71	3.29	0.40	3.24	Accept
3	Awards	3.10	0.72	3.17	0.41	3.14	Accept
4	Regular remuneration	3.12	0.73	3.18	0.41	3.16	Accept
5	Promotion	3.02	0.74	3.12	0.42	3.07	Accept
	Aggregate Mean	3.14	0.72	3.21	0.41	3.18	Accept

Table 2 showed the mean scores and standard deviation of principals and teachers on the extent principals organize motivational strategies for teachers for quality assurance and sustainability development. Principals and teachers accepted all the items on the table with high mean scores greater than the criterion mean of 2.50. The aggregate mean of 3.14 for principals and 3.12 for teachers showed the extent to which principals organize motivational strategies for teachers to maintain quality assurance and sustainability development which include the use of praise, appreciation, awards, promotion, regular remuneration and other non monetary motivations make teachers active and promote good working condition of service. This when well organized motivate teachers to teach effectively for improved productivity and quality assurance. This also creates respect for teachers and help to control their classroom instructions for improved students academic performance.

Research Question Three: To what extent do principals coordinate supervision of teachers' instruction for quality assurance and sustainability development in Enugu State?

Table 3: Mean scores of principals and teachers on the extent principals coordinate supervision of teachers' instructions for quality assurance and sustainability.

S/N	Extent to which principals coordinate supervision of teachers instructions	Principals		Teachers		Mean set	Decision
		Mean	SD	Mean	SD		
	Principals engage teachers in:						
1	Regular classrooms visitation	3.18	0.71	3.20	0.40	3.21	Accept
2	Regular checks of teachers notes of lessons	3.15	0.71	3.03	0.41	3.09	Accept
3	Regular checks of teachers class attendance registers	3.12	0.72	3.22	0.42	3.07	Accept
4	Identifying teachers abilities/qualities possessed by teachers	3.06	0.74	3.10	0.41	3.31	Accept
5	Appointing duties based on areas of specializations	3.30	0.70	3.35	0.37	3.24	Accept
6	Encourage teachers to develop all the required skills for classroom instructions	3.21	0.71	3.26	0.38	3.27	Accept
7	Using feedbacks after supervision to encourage teachers for quality delivery	3.25	0.71	3.29	0.38	3.16	Accept
	Aggregate Mean	3.18	0.71	3.21	0.40	3.19	Accept

Data in table 3 above showed the mean scores and standard deviation of principals and teachers on the extent principals coordinate supervision of teacher's instructions for quality assurance and sustainability development. Principals and teachers accepted all the items on the table with high mean scores greater than the criterion mean of 2.50. The aggregate mean of 3.18 for principals and 3.21 for teachers showed that principals to a very great extent coordinate supervision of teachers instructions which include regular classroom visitations, regular checking of lesson notes and class attendance register, identifying of qualities possessed by teachers, assigning of duties based on areas of specializations, encouraging teachers to develop the required skills and using feedbacks from supervision to encourage quality delivery.

Hypothesis

H₀1: There is no significant difference between the mean scores of principals and teachers on the extent to which principals' plan in service training for teachers for quality assurance and sustainability development in Enugu State

Table 4: Z-test analysis of the difference between the mean scores of principals and teachers on the extent principals plan in-service training for teachers for quality assurance and sustainability development

Staff	N	Mean	SD	Df	z-cal	Critical value	Decision
Principals	93	3.12	0.74	710	0.49	±1.96	H₀1 is accepted
Teachers	620	3.05	0.43				

Table 4 above showed the z-test analysis of the difference between the mean scores of principals and teachers on the extent principals plan in-service training for teachers for quality assurance and

sustainability development. The result showed that z-cal value of 0.49 > ±1.96 critical value at 0.05 level of significance. Therefore, hypothesis one is accepted. There is no significant difference between the mean scores of principals and teachers on the extent to which principals’ plan in service training for teachers for quality assurance and sustainability development in Enugu State

H0₂: There is no significant difference between the mean scores of principals and teachers on the extent to which principals organize motivational strategies for teachers for quality assurance and sustainability development in Enugu State.

Table 5: z- test analysis of the difference between the mean scores of principals and teachers on the extent principals organize motivational strategies for teachers for quality assurance and sustainability development.

Staff	N	Mean	SD	Df	z-cal	Critical value	Decision
Principals	93	3.14	0.72	710	-0.48	±1.96	
Teachers	620	3.21	0.41				H0₂ is accepted

Table 5 showed the z-test analysis of the difference between the mean scores of principals and teachers on the extent principals organize motivational strategies for teachers for quality assurance. The result showed that the z-cal of -0.48 < the critical value ±1.96 at 0.05 level of significance. Hence, the null hypothesis is accepted that there is no significant difference between the mean scores of principals and teachers on the extent to which principals organize motivational strategies for teachers for quality assurance and sustainability development in Enugu State.

H0₃: There is no significant difference between the mean scores of principals and teachers on the extent principals coordinate supervision of teachers’ instructions for quality assurance and sustainability development in Enugu State

Data in Table 6 showed the z–test analysis of the difference between the mean scores of principals and teachers on the extent principals coordinate supervision of teachers’ instructions for quality assurance and sustainability development in Enugu State.

Staff	N	Mean	SD	Df	z-cal	Critical value	Decision
Principals	93	3.18	0.71	710	-0.21	+1.96	
Teachers	620	3.21	0.40				H0₃ is accepted

Data in Table 6 showed the z-test analysis of the difference between the mean scores of principals and teachers on the extent principals coordinate supervision of teachers’ instructions. The results showed that the z-cal value of -0.21 < z-critical value of ±1.96 at 0.05 level of significance. Therefore, the null hypothesis is accepted that there is no significant difference between the mean scores of principals and teachers on the extent principals coordinate supervision of teachers’ instructions for quality assurance and sustainability development in Enugu State.

Discussion of the Findings

The findings of this study revealed the extent principals plan in-service training for teachers which include; principals and teachers to a very great extent pointed out that involving teacher in development programmes like seminars, workshops, exhibitions, conferences and orientations will help them to acquire more knowledge and skills especially on the new trends in education for quality assurance and sustainability development. This is in line with Nwogbo (2014), who observed that planning is the first step in management that helps school administrators to prepare or arrange a set of decisions which in service training is part of it for future actions directed at achieving goals and objectives maximally. This also buttressed Udey & Bassey (2018) who opined that planning of in-service training for educational administrators can enhance teachers’ dedication to their duties in order to achieve the desired objectives of effective teaching, learning and quality assurance. The test of hypothesis one showed that there is no significant difference between the mean scores of principals and teachers on the extent to which principals’ plan in service training for teachers for quality assurance and sustainability development. Involvement of teachers in training/development programmes improves their job satisfaction and achieves quality delivery in the classrooms thereby maintaining quality assurance.

The findings of this study also revealed the extent principals organize motivational strategies for teachers for quality assurance to include; principals and teachers responded to a great extent that when principals organize the use of praise and other non-monetary motivation well, teachers become active in classroom activities and improves students' academic performance. This agreed with Nwabueze, Edikpa & Chukwuma (2018) who assert that motivation is goal oriented and aimed at mounting certain pressure on educational administrators to initiate, sustain and direct their instructional activities for improved teaching, learning and quality assurance for sustainable development. This is also in line with Uchendu, Anijaobi-Idem, & Nkama (2013) who indicated that some of the motivational strategies used by educational administrators include praise, non-monetary appreciation, awards, regular remuneration, promotion, respect for teachers by the administration, discipline by positive reinforcement, conducive working environment, among others directs, sustains and energizes the actions and performances of teachers thereby improving students academic performances and quality assurance. The test of hypothesis two showed that there is no significant difference between the mean scores of principals and teachers on the extent to which principals organize motivational strategies for teachers for quality assurance and sustainability development in Enugu State. However, uses of motivational strategies for teachers promote accomplishment of institutional goals.

Finally, the findings of this study revealed the extent principals coordinate supervision of teachers' instructions for quality assurance. Principals and teachers responded to a very great extent that if supervision of teachers' instructions is well coordinated by the principals, teaching behaviours of teachers improve resulting to quality learning for students. This can be done through regular classroom visitation, regular checks of lesson notes and class attendance register, proper guidance, counseling, giving feedback, among others for improved students' performance in their studies, quality assurance and sustainable development. This is in line with Obi (2013) who identified some of the instructional supervision strategies to be coordinated in the schools to include regular classroom visitation, proper guidance, and counseling, giving feedback, among others for improved students' performance in their studies, quality assurance and sustainable development. This also supported Ezeugbo (2014) who opined that proper supervision of teachers instructions ensures team work and is the function of school administrators to co-ordinate all the activities of the various units within the school especially instructional supervision. However, the respondents were of the opinion that quality supervision of instructions influence to a great extent teachers' job performances and enhance students' academic performances.

Conclusion

This paper focused on the management of secondary school human resources for quality assurance and sustainability development. Based on the findings, conclusion can be made that proper planning of in-service training for teachers equip them with the knowledge of the new trends in education. A proper teacher motivation improves their job productivity and students academic performances through adequate organization of the use of praise and other non-monetary motivations. Finally, proper coordination of supervision of teachers instructions enhances quality teaching and learning, maintains quality assurance and sustainability development.

Recommendations

Based on the findings, the following recommendations were made.

- 1) Government and school administrators should make adequate plans for in-service training of teachers to acquire new skills and knowledge for the job.
- 2) Secondary schools principals should properly motivate their teachers for good classroom control for effective teaching and learning to be achieved.
- 3) Principals should adopt regular supervision of teachers' instructions to improve teachers job productivity, maintain quality assurance and sustainability development.

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**PERCEIVED HEALTH BENEFITS OF EXERCISE ON PREGNANT
WOMEN IN NSUKKA LGA, ENUGU STATE BASED ON
SELECTED DEMOGRAPHICS**

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Abstract

The study investigated the perceived health benefits of exercise among pregnant women in, Nsukka Local Government Area based on selected demographics. The cross-sectional survey research design was used for the study. Four research questions and four null hypotheses guided the study. The population of 3291 pregnant women in Nsukka LGA and a sample of 360 subjects were selected for the study. Structured questionnaire was used for data collection. The research questions were answered using frequency and percentages while the null hypotheses were tested using Chi-square (χ^2) statistical at 0.05 level of significance. The perception of exercise benefit was higher among pregnant women within the age range of 32-above years, pregnant women whose level of education is secondary and primary school, pregnant women who are traders/artisans and pregnant women in the urban area. The perceived health benefit of exercise in relation to age, education, occupation and location were not significant ($p > 0.05$). Conclusions: Based on these findings, it was concluded among other things that there is a high perception of health benefits of exercise among pregnant women in Nsukka LGA of Enugu State.

Keywords: Exercise, Pregnancy, Pregnant Woman Health, Perceived Benefits

Introduction

Exercise is a fundamental component of antenatal care. Several positive associations between regular activity and maternal outcomes have been clearly demonstrated. An active pregnancy has shown an improvement in cardiovascular and metabolic function, and increased bone density (Prather, Spitznagle & Hunt, 2012). However, women's physical activity lessens as the perception of risk in pregnancy is high (Motolla & McLaughlin, 2011). World Health Organization (2016) stated that the fourth leading risk factor for early mortality worldwide is physical inactivity. Universally pregnancy being an important phase in the life of women has been found from studies to be a risk factor associated with decreased physical activity. According to the data presented by Evenson in (Justyna, Dorota & El'zbieta, 2018) only (15.8%) of pregnant women in the USA reported being active, in accordance with the recommendations. The proportion of pregnant women with overweight or obesity is increasing rapidly across the world. The prevalence of an insufficient level of physical activity or exercise in pregnant women has been demonstrated in a study conducted by (Santo, Forbes, Oken, & Belfort, 2017) which stated that merely (9%) of 1584 pregnant women met the American College of Obstetrics and Gynaecology ACOG guidelines, across the world and Africa inclusive.

In Africa, there are still some conservative views and myths that exercises are delicate and unsafe for pregnant women. Women are also afraid to participate in physical exercise owing to fear that it will negatively impact on their health. And research has proven that pregnancy leads to more sedentary lifestyle due to physiological changes that goes on during this period (Adeoye, 2022 and Fazzi, Saunders, Linton, Norman, and Reynolds, 2017). In Nigeria, some researchers have conducted a study on the concept of exercise during pregnancy. Eziaha (2018) affirmed that the major reason working out is not exactly encouraged by most pregnant women because they do not understand why, most pregnant women erroneously think that exercise during pregnancy predispose the mother and child to injury. A survey conducted to assess physical activity and energy expenditure in Ibadan pregnant women, about half [222(49.0%)], of the participants were classified as sedentary based on their performance on the Pregnancy Physical Activity Questionnaire (Adeniyi, Ogwumike, & Osinike, 2014). The result showed the negative impact sedentary living has on the health of the women.

Despite the well-documented health benefits of involvement in physical activity or exercise in this period of life. Huberty (2016) stated that the period of pregnancy continues to be one of the causes of a substantial reduction in exercise.

Exercise is defined as a planned, structured, and repetitive subset of physical activity that improves or maintains physical fitness, overall health or well-being as an intended intermediate or final objective (World Confederation for Physical Therapy, 2011). In the absence of medical or obstetrical complications, pregnant women are encouraged to continue and maintain active lifestyles during their pregnancies. The importance of exercise in pregnancy can go a long way in saving the health of both the mother and child. Regular antenatal exercise is highly recommended for its overall health benefits on the mother and the fetus (Sujindra, E., Bupathy, A., Suganya, A., & Praveena, P., 2015). It is recognized as a safe practice, indicated for healthy pregnant women as long as the intensity, duration, frequency of the exercises is tailored to the requirement of each woman (Mbada et al., 2015). prevention of gestational weight gains and glucose intolerance (Chasen-Taber, 2012; Mottala & Ruchat, 2011). There is ample and consistent evidence that promoting physical activity in women of reproductive age may be a promising approach for the prevention of excessive weight gain, gestational diabetes mellitus and subsequent complications suffered by children born from pregnancies affected by gestational diabetes mellitus (Samselle, 2012)).

Regrettably, most women quit exercising and adopt a sedentary lifestyle after discovering they are pregnant. There are number of reasons for this including the perception that exercise may put their baby at risk and be damaging to a healthy pregnancy. This may cause them to become overweight which has tendencies to increase risk of complications in pregnancy and during labour among many pregnant women. Some of these complications among pregnant women include Musculoskeletal discomfort such as lower back, pelvic and joint pain, depression, pre-eclampsia, gestational diabetics, spontaneous abortion, dyspnoea and hypertension.

Studies have been conducted in other areas on the perceived benefits of exercise among pregnant women. However, there seems to be dearth of research on the perceived benefits of exercise among pregnant women in Nsukka L.G.A. Therefore, the purpose of the study was to investigate the perceived health benefits of exercise among pregnant women in Nsukka Local Government Area, Enugu.

The following Research questions were posed to guide the study:

- What is the perceived health benefit of exercise among pregnant women in Nsukka LGA, Enugu State; based on age?
- What is the perceived health benefit of exercise among pregnant women in Nsukka LGA, Enugu State; based on level of education?
- What is the perceived health benefit of exercise among pregnant women in Nsukka LGA, Enugu State; based on occupation?
- What is the perceived health benefit of exercise among pregnant women in Nsukka LGA, Enugu State; based on location?

Research Design

The research design adopted for this study is the cross-sectional survey research design. A cross-sectional survey is one that produces a snap shot of a population at a particular point in time. Instead of following a group of subjects over a period of time, cross-section of the subjects of varying ages and other socio-demographic factors are sampled and studied at the same time, and data are obtained at one time from groups or at different stages of development (Cohen, Manion, & Morrison, 2011).

Area of the Study

This study was carried out in Nsukka LGA of Enugu State. Nsukka is a local government area in the southeast Nigeria. It is situated in the northern part of Enugu state. It is one of the seventeen (17) LGAs of Enugu State. Nsukka Local Government Area shares boundaries with Igbo-Etiti LGA on the south, Uzo-Uwani LGA on the West, Udenu LGA on the East and Igbo-Eze LGA on the North. Nsukka LGA is divided into four parts namely: Nsukka East, Nsukka West, Nsukka South and Nsukka central and has its headquarters at Nsukka town (Ofomata, 2011). The LGA comprises mainly of Igbo ethnic nationality. The inhabitants of the area are mainly farmers, palm wine tappers, traders, and civil servants among who are teachers. Nsukka LGA is surrounded by large markets of different sizes, financial institutions, hospitals, police stations, schools of all types and dwellers from different parts of the country.

Population of the Study

The population for the study consists of total population of three thousand, two hundred and ninety-one (3291) pregnant women attending antenatal care services in Nsukka Local Government Area, Nsukka LGA Health office, 2021. (See Appendix B page 42)

Exclusion Criteria: Pregnant women with medical conditions requiring bed rest or confinement, as directed by their physicians were excluded from the study.

Sample and Sampling Technique

The sample for this study comprised of 360 pregnant women in Nsukka L.G.A of Enugu state. The sample size will be drawn using multi-stage sampling technique. This is in line with the guideline of Cohen, Manion, and Morrison (2011), that when a population size is 2500 and above at 95 percent confidence level (5% interval), the population size should be 333 and above. Multi –stage sampling procedure was used to draw out the sample size for the study. Stage one involved using stratified sampling to divide the communities in Nsukka Local Government area into 4 development centers: Nsukka Central, Nsukka East and Nsukka West and Nsukka South. Stage two involved the use of simple random sampling to select two health facilities each from the four development centers to give a total number of eight health facilities. Stage three involved conveniently sampling 45 pregnant women who attend antenatal care service at each health facility. This will give a total of 360 pregnant women who will be used for this study.

Instrument for Data Collection

Self-administered questionnaires were used to obtain data from consenting respondents. The instrument for data collection was a structured ‘Perceived Health Benefits of Exercise Questionnaire (PHBEQ), comprising of 24 items. The PHBEQ was divided into two sections: A & B. Section A contains four items on demographic characteristics of the respondents, such as: age, occupation and level of education and location while section B contains 20 items on the Perceived Health Benefits of Exercise among Pregnant Women. Section B will be assigned response options of Yes and No. The respondents will be requested to place a tick (✓) against the option (s) that best applied to them.

Validity and reliability of the instrument

The face validity of the instrument ‘PHBEQ’ was established by five experts. Four was from the Department of Human Kinetics and Health Education, and one from the Department of Science Education (Measurement and Evaluation), all from University of Nigeria, Nsukka. Each of these experts was given a draft of the PHBEQ, accompanied with the purpose of the study and its specific objectives, research questions, and hypotheses. The reliability of the instrument was established by carrying out a trial-test on twenty pregnant women in Udenu LGA of Enugu State. Udenu, which is a neighboring local government and has peculiar features with Nsukka LGA. The internal consistency for PBEQ was computed using alpha (Kuder-Richardson [K-R21]) statistics. Based on this, a reliability coefficient of .761 was obtained, and was considered very reliable for the present study.

Method of Data Analysis

The 352 returned copies of PHBEQ were properly filled out and used for data analysis. Information from the instruments will be coded into IBM Statistical Package for Social Sciences (SPSS) version 23, and analyzed to indicate the response frequencies, percentages and probability values. The research questions were answered using frequency and percentages while the null hypotheses were tested using Chi-square (χ^2) statistical at 0.05 level of significance. To ascertain the perceived health benefits of exercise among pregnant women in Nsukka Local Government Area of Enugu State.

Research Results

Table 1: Percentage Analysis of the Perceived Health Benefits of Exercise among Pregnant Women in Nsukka Local Government Area, Enugu Based on Age (n= 352)

S/n	Item Statement	18-22years		23-27years		28-32years		32 and above	
		Yes		Yes		Yes		Yes	
		f	%	f	%	f	%	f	%
1	Exercising improves the functioning of my cardiovascular system	17	77.3	99	79.2	99	78.6	59	74.7
2	I have improved feelings of wellbeing from exercise	16	72.7	104	83.2	112	88.9	70	88.6
3	Exercise increases my physical endurance	14	63.6	107	85.6	110	87.3	67	84.8
4.	Exercise help me decrease fatigue	15	68.2	69	55.2	85	67.5	53	67.1
5	Exercise improves my mood	14	63.6	100	80.0	103	81.7	60	75.9
6	Exercising help me sleep better at night	14	63.6	109	87.2	102	81.0	69	87.3
7	Exercising helps me reduce stress	8	36.4	75	80.0	81	64.3	65	82.3
8	I have improved feeling of wellness from exercise	14	63.6	110	88.0	115	91.3	71	89.9
9	Exercise gives me better body shape	18	81.8	119	95.2	120	95.2	71	89.9
10.	Exercising helps to prevent excessive weight gain	21	95.5	112	89.6	113	89.7	71	89.9
11	Exercise improves my flexibility	17	77.3	92	73.6	88	69.8	66	83.5
12	After exercising I experience lower incidence of back pain, constipation, swelling	12	54.5	83	66.4	101	80.2	66	83.5
13	Exercising reduces risk of delivery through Caesarean Section	17	77.3	92	73.6	89	70.6	49	62.0
14	Exercising will keep me from having hypertension during pregnancy	15	68.2	100	80.0	94	74.6	67	84.8
15	I like antenatal exercise because it improves easy delivery during labour	16	72.7	117	93.6	119	94.4	75	94.9
16	Exercising help me control gestational diabetes mellitus	8	36.4	94	75.2	103	81.7	66	83.5
17	I do not like antenatal exercises because of its complications to pregnancy	14	63.6	42	33.6	58	46.0	44	55.7
18	I relate more with people after exercising	13	59.1	101	80.8	95	75.4	62	78.5
19	Exercising is a good way for me to meet new people	20	90.9	109	87.2	107	84.9	65	82.3
20	Exercising helps me manage mood swings	22	100.0	99	79.2	105	83.3	73	92.4
Overall Value		22	81.6	125	87.4	126	95.0	79	97.3

Table 1 shows that the perceived health benefits of exercise among pregnant women in Nsukka Local Government Area is higher among pregnant women within the age range of 32- above years (97.3%) and 28-32 years (95.0%) while pregnant women within the ages of 23-27years (87.4%)and 18-22(81.6%) is slightly lower. The table further shows that women who perceive that exercise helps them to manage mood swing has (100.0%) response among pregnant women from 18-22years while women who perceive that exercising helps them to reduce stress (36.4%) and control gestational diabetes mellitus (36.4%) is the lowest within the same age range.

Table 2: Percentage Analysis of the Perceived Health Benefits of Exercise among Pregnant Women in Nsukka Local Government Area, Enugu Based on level of education (n= 352)

S/N	Item Statement	NFE		PSE		SSE		TLE	
		Yes		Yes		Yes		Yes	
		f	%	f	%	f	%	f	%
1	Exercising improves the functioning of my cardiovascular system	0	0.0	8	80.0	110	64.7	156	91.8
2	I have improved feelings of wellbeing from exercise	0	0.0	10	100.0	134	78.8	158	92.9
3	Exercise increases my physical endurance	0	0.0	10	100.0	134	78.8	154	90.6
4.	Exercise help me decrease fatigue	0	0.0	6	60.0	98	57.6	118	69.4
5	Exercise improves my mood	1	50.0	10	100.0	133	78.2	133	78.2
6	Exercising help me sleep better at night	0	0.0	6	60.0	136	80.0	152	89.4
7	Exercising helps me reduce stress	1	50.0	7	100.0	109	64.1	112	65.9
8	I have improved feeling of wellness from	0	0.0	10	100.0	138	81.2	162	95.3

	exercise								
9	Exercise gives me better body shape	1	50.0	10	100.0	156	91.8	161	94.7
10.	Exercising helps to prevent excessive weight gain	0	0.0	9	90	154	90.6	154	90.6
11	Exercise improves my flexibility	1	50.0	9	90	124	72.9	129	75.9
12	After exercising I experience lower incidence of back pain, constipation, swelling	1	50.0	10	100.0	118	69.4	133	78.2
13	Exercising reduces risk of delivery through Caesarean Section	1	50.0	5	50.0	120	70.6	121	71.2
14	Exercising will keep me from having hypertension during pregnancy	1	50.0	6	60.0	127	74.7	142	83.5
15	I like antenatal exercise because it improves easy delivery during labour	0	0.0	10	100.0	159	93.5	158	92.9
16	Exercising help me control gestational diabetes mellitus	0	0.0	8	80.0	126	74.1	137	80.6
17	I do not like antenatal exercises because of its complications to pregnancy	1	50.0	4	40.0	91	53.5	62	36.5
18	I relate more with people after exercising	1	50.0	10	100.0	128	75.3	132	77.6
19	Exercising is a good way for me to meet new people	0	0.0	10	100.0	140	82.4	151	88.8
20	Exercising helps me manage mood swings	0	0.0	10	100.0	142	83.5	147	85.5
	Overall Value	0	0.0	10	100.0	170	100.0	169	99.4

Table 2 shows that the perceived health benefits of exercise among pregnant women in Nsukka Local Government Area is higher among pregnant women whose level of education is Secondary and primary level of education (100%) while pregnant women who is at tertiary level of education is slightly lower (99.4%) is slightly lower. The table further shows more perceived health benefit (100.0%) response among pregnant women whose level of education is Primary school education while women who did not attend any formal education has the lowest (0.0%)

Table 3
Percentage Analysis of the Perceived Health Benefits of Exercise among Pregnant Women in Nsukka Local Government Area, Enugu Based on occupation (n= 352)

S/N	Item Statement	Student		Trading		Civil service	
		Yes f(%)	No f(%)	Yes f(%)	No f(%)	Yes f(%)	No f(%)
1	Exercising improves the functioning of my cardiovascular system	89(90.8)	9(9.2)	103(66.5)	52(33.5)	82(82.8)	17(17.2)
2	I have improved feelings of wellbeing from exercise	83(84.7)	15(15.3)	126(81.3)	29(18.7)	93(93.9)	6(6.1)
3	Exercise increases my physical endurance	83(84.7)	15(15.5)	127(81.9)	28(18.1)	88(88.9)	11(11.1)
4.	Exercise help me decrease fatigue	58(59.2)	40(40.8)	89(57.4)	66(42.6)	75(75.8)	24(24.2)
5	Exercise improves my mood	79(80.6)	19(19.4)	125(80.6)	30(19.4)	73(73.7)	26(26.3)
6	Exercising help me sleep better at night	78(79.6)	20(20.4)	131(84.5)	24(15.5)	85(85.9)	14(14.1)
7	Exercising helps me reduce stress	54(55.1)	44(44.9)	100(64.5)	55(35.5)	75(75.8)	24(24.2)
8	I have improved feeling of wellness from exercise	83(84.7)	15(15.3)	137(88.4)	18(11.6)	90(90.9)	9(9.1)
9	Exercise gives me better body shape	94(95.9)	4(4.1)	143(92.3)	12(7.7)	91(91.9)	8(8.1)
10.	Exercising helps to prevent excessive weight gain	88(89.8)	10(10.2)	146(94.2)	9(5.8)	83(83.8)	16(16.2)
11	Exercise improves my flexibility	65(66.3)	33(33.7)	118(76.1)	37(23.9)	80(80.8)	19(19.2)
12	After exercising I experience lower incidence of back pain, constipation, swelling	62(63.3)	36(36.7)	116(74.8)	39(25.2)	84(84.8)	15(15.2)
13	Exercising reduces risk of delivery through Caesarean Section	77(78.6)	21(21.4)	102(65.8)	53(34.2)	68(68.7)	31(31.3)
14	Exercising will keep me from having hypertension during pregnancy	77(78.8)	21(21.4)	118(76.1)	37(23.9)	81(81.8)	18(18.2)
15	I like antenatal exercise because it improves easy delivery during labour	84(85.7)	14(14.3)	151(97.4)	4(2.6)	92(92.9)	7(7.1)

16	Exercising help me control gestational diabetes mellitus	65(66.3)	33(33.7)	129(83.2)	26(16.8)	77(77.8)	22(22.2)
17	I do not like antenatal exercises because of its complications to pregnancy	36(36.7)	62(63.3)	75(48.4)	80(51.6)	47(47.5)	52(52.5)
18	I relate more with people after exercising	66(67.3)	32(32.7)	121(78.1)	34(21.9)	84(84.8)	15(15.2)
19	Exercising is a good way for me to meet new people	84(85.7)	14(14.3)	130(83.9)	25(16.1)	87(87.9)	12(12.1)
20	Exercising helps me manage mood swings	80(81.6)	18(18.4)	134(86.5)	21(13.5)	85(85.9)	14(14.1)
Overall Value		97(99.0)	1(1.0)	154(99.4)	1(0.6)	98(99.0)	1(1.0)

Table 3 shows that the perceived health benefits of exercise among pregnant women in Nsukka Local Government Area is higher among women who are traders/Artisans (99.4%) while that of pregnant women who are civil servants and students is slightly lower (99.0%). The table further shows that women who like antenatal exercise because it improves easy delivery during labour has (97.4%) response among women who are traders/artisans while women who do not like antenatal exercises because of its complications to pregnancy is the lowest (47.5%) within women who are civil servants.

Table 4: Percentage Analysis of the Perceived Health Benefits of Exercise among Pregnant Women in Nsukka Local Government Area, Enugu Based on location (n= 352)

S/N	Item statement	Rural				Urban			
		Yes		No		Yes		No	
		f	%	f	%	f	%	f	%
1	Exercising improves the functioning of my cardiovascular system	108	65.5	57	34.5	166	88.8	21	11.2
2	I have improved feelings of wellbeing from exercise	140	84.8	25	15.2	162	86.6	25	13.4
3	Exercise increases my physical endurance	132	80.0	33	20.0	166	88.8	21	11.2
4	Exercise help me decrease fatigue	90	54.5	75	45.5	132	70.6	55	29.4
5	Exercise improves my mood	125	75.8	40	24.2	152	81.3	35	18.7
6	Exercising help me sleep better at night	137	83.0	28	17.0	157	84.0	30	16.0
7	Exercising helps me reduce stress	89	53.9	76	46.1	140	74.9	47	25.1
8	I have improved feeling of wellness from exercise	136	82.4	29	17.6	174	93.0	13	7.0
9	Exercise gives me better body shape	143	86.7	22	13.3	185	98.9	2	1.1
10	Exercising helps to prevent excessive weight gain	144	87.3	21	12.7	173	92.5	14	7.5
11	Exercise improves my flexibility	115	69.7	50	30.3	148	79.1	39	20.9
12	After exercising I experience lower incidence of back pain, constipation, swelling	112	67.9	53	32.1	150	80.2	37	19.8
13	Exercising reduces risk of delivery through Caesarean Section	105	63.6	60	36.4	142	75.9	45	24.1
14	Exercising will keep me from having hypertension during pregnancy	128	77.6	37	22.4	148	79.1	39	20.9
15	I like antenatal exercise because it improves easy delivery during labour	149	90.3	16	9.7	178	95.2	9	4.8
16	Exercising help me control gestational diabetes mellitus	127	77.0	38	23.0	144	77.0	43	23.0
17	I do not like antenatal exercises because of its complications to pregnancy	88	53.3	77	46.7	70	37.4	117	62.6
18	I relate more with people after exercising	121	73.3	44	26.7	150	80.2	37	19.8
19	Exercising is a good way for me to meet new people	134	81.2	31	18.8	167	89.3	20	10.7
20	Exercising helps me manage mood swings	137	83.0	28	17.0	162	86.6	25	13.4
Overall Value		163	98.8	2	1.2	186	99.5	1	0.5

Table 4 shows that the health benefits of exercise among pregnant women in Urban area is higher (99.5%) compared to the pregnant women in the rural area (98.8%). Although the perceived health benefit of exercise among pregnant women in these two locations is high. The table further reveals that women who engage in antenatal exercise because it gives them better body shape is high among pregnant women in the urban area (98.9%). The table also shows that pregnant women who engage in exercise because it improves easy delivery during labour is the highest among women in the rural area (90.3%) while women who do not engage in exercise due to complications associated with it (37.4%) is the lowest among pregnant women in the urban area.

Null Hypothesis

1. The null hypothesis which states that there is no significant difference in the perceived health benefits of exercise among pregnant women in Nsukka LGA based on Age ($\chi^2 = 1.678$, P -value = .642 > 0.05) is accepted
2. The null hypothesis which states that there is no significant difference in the perceived health benefits of exercise among pregnant women in Nsukka LGA based on Level of Education ($\chi^2 = 234.354$, P -value = 0.00 < 0.05) is rejected
3. The null hypothesis which states that there is no significant difference in the perceived health benefits of exercise among pregnant women in Nsukka LGA based on Occupation ($\chi^2 = .141$, P -value = .932 > 0.05) is accepted.
4. The null hypothesis which states that there is no significant difference in the perceived health benefits of exercise among pregnant women in Nsukka LGA based on Location ($\chi^2 = .476$, P -value = .490 > 0.05) is accepted.

Discussion

The findings in table 1 revealed that slightly higher proportion of pregnant women aged 32 years and above (97.3%) had more perceived health benefit of exercise than those less than pregnant women of 27-32 (95.0 %), women of 23-27 years (87.4%) and women of 18-22 years (81.6%). This finding is in contrast with the finding by Mbada et. al., (2014) in which pregnant women less than 30 years reported more favourable attitude (59.4%) than those aged 30 years and above (40.6%). This contradiction in the two findings could be attributed to the difference in geopolitical zones of the country where the studies were carried out.

In table 2, 100% per cent of those with Primary School Education, 100% of those with secondary school Education and 99.4% of those with Tertiary Level of Education showed High perception on the health benefit of exercise. While pregnant women with no formal education showed a very low perception on the health benefit of exercise in pregnancy. Abugu and Samuel (2016) reveals that 100 per cent of pregnant women with no formal education, 82.6 per cent with tertiary, 76.9 with secondary and 65.7 per cent with primary demonstrated positive attitude towards antenatal exercise. This demographic distribution is in contrast with the study by Sujindra, Bupathy, Suganya and Preveena, (2015) where 63 percent of the mothers have undergone only primary education and 74 percent of them were home makers. This difference could be attributed to different settings where the two studies were conducted.

Table 3 shows that higher proportion of pregnant women who are traders/artisans (99.4%) demonstrated more perceived health benefits of exercise than Civil servant (99.0%) and students (99.0%). This conforms with Abugu and Samuel who also showed that Traders/self-employed demonstrated more benefits of exercise than Civil servants and students in their work. This finding is consistent with the finding of Mbada et. al., (2014), and at variance with that of Put, Chuang and Chan, (2015). This could have resulted from similarities and differences of those studies with the present one.

The findings in table 4 revealed that slightly higher proportion of pregnant women in the Urban area (99.5%) had more perceived health benefit of exercise than pregnant women staying in the rural area (98.8 %). This work shows that pregnant women from both locations have a good perception towards exercise in pregnancy. This is in line with the work of Ojukwu et al (2017) the results revealed that a good number of pregnant women in the urban area have higher perception of the health benefit of exercise. This difference may be attributed to the high level of education and exposure to modern and recent trends of healthy lifestyle among women in the urban areas. Another possible reason may be the deficiency of health professionals in the rural areas.

The findings of the study on the null hypothesis showed that there was no significant difference in the perceived health benefits of exercise among pregnant women in Nsukka LGA based on age. The result was unexpected and therefore surprising as one would expect that demographic factors such as age would influence Pregnant women's perception. This finding was consistent with the findings of Abugu and Samuel (2015) who reported that the slight difference based on age was not significant ($P = .105 < .05$).

The findings of the study also showed that there was a significant difference in the perceived health benefits of exercise among pregnant women in Nsukka LGA based on Level of Education. The was expected and therefore not surprising because educational level of women is capable of

increasing/influencing their experiences thereby influencing their perception. The findings correspond with study of Abugu and Samuel (2015) who reported there is significant difference in their attitude based on educational level. The finding is in contrast with that of Sujindra et. al., (2015) who found no significant difference in the attitude of mothers based on educational level in their study in India. This could be as a result of different Location.

Furthermore, the study showed that there was no significant difference in the perceived health benefits of exercise among pregnant women in Nsukka LGA based on Occupation. This result is surprising and unexpected as one would think that the level of the job one does will affect her perception towards exercise. The finding is in contrast with the work of Abugu and Samuel (2015) On the test of their hypotheses, the table showed an overall chi-square of 25.585 with a corresponding p-value of .038 less than .05 level of significance implying that there was a significant difference based on occupation.

Finally, the study showed that there was no significant difference in the perceived health benefits of exercise among pregnant women in Nsukka LGA based on Location. This result is surprising and unexpected as one would think that the high level of education and exposure to modern and recent trends of healthy lifestyle among women in the urban areas and possible deficiency of health professionals in the rural areas would affect to a great extent the perception of rural pregnant women on the health benefits of exercise in pregnancy. This finding is in contrast with the work of Ojukwu et al (2017) On the test of their hypotheses, which indicated a significant difference between perceived health benefits of exercise among pregnant women based on Location.

Conclusion

A greater portion of pregnant women in Nsukka LGA demonstrated a very perception of the health benefits of exercise. The different age groups view that exercise is associated with a wide range of health benefits.

Recommendation

1. Nurses in the area should also include benefits of exercise in their health talks during antenatal clinic to prevent the negative perception about pregnant mothers’.
2. Health care providers should be abreast with the latest recommendations on exercise as only then can they give appropriate exercise prescription.
3. Efforts should be made to encourage women regardless of parity to exercise as women who routinely exercise is more likely to continue to do so even during pregnancy.
4. Increased social support should be given to pregnant women to help them exercise. Thus, employers, parents, relatives and spouses of pregnant women should likewise be engaged through adequate and appropriate health education.

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INFORMATION RESOURCES MANAGEMENT IN PUBLIC SECONDARY SCHOOLS: A PANACEA FOR ACHIEVING SUSTAINABLE DEVELOPMENT GOALS IN ANAMBRA STATE

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Abstract

The aim of this study was to investigate information resources management in public secondary schools for achieving sustainable development goals in Anambra state. A survey design was adopted with a population of 6,396 teachers of public secondary schools in Anambra State. Using cluster and simple random sampling, ten percent of the teacher were selected from each of the six zones giving a sample of 640 teachers. Four Likert scale questionnaire was developed and used as instrument for data collection. Three experts validated the instrument while the test of reliability yielded a coefficient value of 0.95. Data was collected personally by the researchers. Mean statistics was used to answer the research questions while chi-square was used to test the hypotheses. Results indicated that management of information resources in public secondary schools to a high extent aids in achieving sustainable development goals of “No poverty” and “zero hunger”. The test of null hypotheses also indicated calculated value was greater than the critical table value which led to the rejection of the two null hypotheses and the alternative were accepted which are there is significant relationship between information sources management in public secondary schools and achievement of SDGs of “No poverty” and “Zero hunger” in Anambra State respectively. Conclusion, recommendation and educational implications were made. One of the recommendations is that the UN should try to assist poor member nations like Nigeria through their various home government and agencies to acquire most of these information resources to the secondary schools as well as ensure steady power supply. When this is done and properly managed, poverty will be reduced.

Introduction

Education management is an indispensable process in education as machinery for attainment of meaningful development in any society and achievement of sustainable Development Goals. The term “management” has become an inevitable element for any organization towards realization of set goals. Among the resources managed in education are; Human resources, material resources, financial resources, time and information as a resource. This paper is focused on information resources.

The term information refers to an infrastructure or material that provides content and information services for the user. It also means an element of infrastructure that enables the transaction of certain selected significant and relevant data, prepared so as to provide content and information services that can be used directly by the user (IGI Global, n.d). It also means any fact or set of facts, knowledge, news, or advice, whether communicated by others or obtained by personal study, and investigation, any datum that reduces uncertainty about the state of any part of the world, intelligence, knowledge derived from reading, observation or instruction. According to Adetoro as cited in Babaloolo and Ayeni, (2009) information via internet has double edge and could be harnessed for both positive and negative outcomes. A lot of education materials could be accessed using the internet despite its double edged nature. As a result of this feature of internet resource of educational information, its proper management is a must.

According to Law Insider (2021) information resources mean any and all computer printouts, online display devices, mass storage media, and all computer-related activities involving any device capable of receiving email, browsing websites, or otherwise capable of receiving, storing, managing, or transmitting data including, but not limited to, mainframes, services, network, infrastructure, personal computers, notebook computers hand-held’s computers, personal digital assisted (PDA), pagers, distributed processing system, network attached and computer controlled medical and laboratory equipment, tele-communication resources, network environment, telephones, fax machines,

printers and service bureau. Additionally, it is the procedures, equipment, facilities, software and data that are designed, built, operated and maintained to create, collect, record, process, store, retrieve, display, and transmit information. (Acqnotes, 2021) went on to identify three classes of information resources as: (1) Business resources which involves enterprises, business functions, positions (jobs), human/machine resources, skills, business objectives projects and information requirements (2) system resources; this include; systems, sub-systems (business processes), administrative procedures (Manual procedures and office automation – related), computer procedures, programs, operational steps, modules and subroutines (3) data resources – involves; files (computer and Manual), outputs, panels, maps, call parameters and data bases.

Adetoro added that the management of this huge resource is also important because of the scarcity of computer systems and internet connectivity's in comparison to the unlimited number of potential students and other users. Information resources management is the process of managing information resources to accomplish agency missions and to improve agency performance, including the reduction of information collection burdens on the public. When standardized and controlled, these resources can be shared and reused throughout an agency, not just by a single user or application (Acqnotes, 2021).

According to Fabunmi as cited in Babalola and Ayeni (2009) information resource management is concerned with the development, management and control of information systems as a strategic resource. According to him, proper management of information enhances an organization devoid of rumour and rancor. Information in any organization may be oral done through face to face encounter or through any of the information communication technology (ICT). These resources, therefore, require specific skill in their management. Regular maintenance is a must and protection from danger and defects like virus attacks is absolutely necessary (Adetoro in Babaloola and Ayeni, 2009). Internet is a vital source of information in organizations today, therefore the technological resources through which such information are accessed deserve adequate management.

Information resource management is a technique of managing information as a shared organization resource. It includes: (1) identification of information sources (2) type and value of the information provide and (3) ways of classification, value processing and storage of that information (CIO Wiki 2023). C10 wiki went on to opine that information resource management is a broad term in information technology (IT) that refers to the monument of records or information or data sets as resource. It involves identifying data sets as resource. It involves identifying data as an asset categorizing it and providing various types of active management. They went further to stress that Information Resource management (IRM) views information and Information Technology (IT) as in integrating factor in the organization, which is the various organization positions that manage information are coordinated and work together toward common ends. IRM look for ways in which the management of information and management of information technology can interrelate and fosters that relationship and organizations integration. To C10 Wiki (2023) Information Resource Management involves the management of (1) the broad range of information resources like printed materials, electronic information, and microforms. (2) The various technologies and equipment that manipulates these resources, and (3) the people who generate, organize and disseminate those resources.

Writing on benefits of information resources management (IRM), Acqnotes (2021) notes that one of the important benefits is the cataloging and cross-referencing. Other benefits of information resources management include: all information resources are controlled, permitting the ability to design integrated system and perform an “impact analysis” of a proposed resource change; The simplified search of information resources for reuse; The redundancy of resource definition is eliminated; Complete and current documentation of all information resources organized in a meaningful way. Communication within the organization are improved since developers and users would use standard and common definitions for information resources, all of which would be in standard business terminology.

Sustainable development goals are the orchestration of the United Nations in 2015 with seventeen (17) agenda. They aim at achieving them by 2030. The entire 193 United Nation member states agreed on these 17 goals to end poverty, ensure prosperity and protect the planet. The 17 goals include No poverty – end poverty in all its forms everywhere; zero hunger – end hunger, achieve food security, and improved nutrition and promote sustainable agriculture; good health and well-being, ensue healthy lives and promote well being for all ages; quality education – ensure inclusive equitable quality education and promote long learning opportunities; gender equality – achieve gender equality and empower all women and girls; Clean water and sanitation – ensure availability and sustainable

management of water and sanitation for all to mention but these. This paper shall focus on two – No poverty and Zero hunger.

The term poverty is the state of one who lacks a usual or socially accepted amount of money or material possessions. Poverty is said to exist when people lack the means to satisfy their basic needs. Basic needs here refer narrowly as “those necessary for survival” or as broadly as “those reflecting the prevailing standard of living in the community (Encyclopaedia Britannica). To Investopedia (n.d.) poverty refers to the state or condition in which people or communities lack the financial resources and essentials for a minimum standard living. As such their basic human needs cannot be met. Investopedia went on to stress that poverty – stricken people and families may go without proper housing, clean water, healthy food, and medical attention.

To United Nations organizations (2015) ending poverty in all its forms is the first of the 17 sustainable Development goals (SDGs). The SDG main reference to combating poverty is made in target 1“A” which is to ensure significant mobilization of resources from a variety of sources including the enhanced development cooperation in order to provide adequate and predictable means for developing countries in particular, and the world general, implement programmes and policies to end poverty in all its dimensions.

Writing on forms of poverty, Wolff (2021) list six types as:

- Situational poverty – This has to do with job loss, a divorce, or a health crisis that caused you to be economically unstable.
- Generational poverty – This is defined as being part of a family that has been living in poverty for more than two generations.
- Absolute poverty – This is absolute lack of resources including food insecurity
- Relative poverty refers to living at about 50% or below the average income.
- Rural poverty – one of the main issues here is that there isn’t access to high – speed internet
- Urban poverty is when you have more structure issues like housing and safety issues, overcrowding and sanitation challenges.

The second item in the UN 17 Goal is zero hunger? By this, UN means that by the year 2030 there is target to (1) end hunger (2) achieve food security (3) improve nutrition, and (4) promote sustainable agriculture.

Ending world hunger is one of the greatest challenges of our time. Across the globe up to 828 million people do not have enough food. Nearly 43.3 million people are at serious risk of famine, Nigeria inclusive. Despite the amount of food produced in the planet, the goal of the world with zero hunger as set out by United Nations is hugely challenged by toxic conflict, climate change, disasters, structural poverty, and inequality (world food programme 2023). According to United Nations Organization (2022) the targets of goal 2 out of the 17 goals are;

- By 2020, end hunger and ensure access by all people in particular the poor and people in vulnerable situations including infants, to safe, nutrition and sufficient food all year round.
- By 2030, end all forms of malnutrition, including achieving by 2025 the internationally agreed target on stunting and wasting in children under 5 years of age, and address the nutritional needs of adolescences girls, pregnant and lactating women and older person.
- By 2030, double the agricultural productivity and incomes of small scale food producers, in particular women, indigenous peoples, family farmers, pastoral and fishers, including through secure and equal access to land, or other productive resources and inputs, knowledge, financial services, markets and opportunities for value addition and nonfarm employment.
- By 2030, ensure sustainable food production system and implement resilient agricultural practice that increases productivity and production, they help maintain ecosystem, that strengthen capacity for adaptation to climate change, extreme weak drought, flooding and other disasters and that progressively improve land and soil quality.
- By 2020 maintain the genetic diversity of seeds, cultivated plants and farmed and domesticated animals and their related wide species including soundly managed and diversified seed and plant banks at the national, regional and international levels, and promote access to and fair and equitable sharing of benefits arising from utilization of genetic resources and associated traditional knowledge, as internationally agreed.
- Increase investment, including through enhanced international cooperation, in rural infrastructure, agricultural research and extension services, technology development and plant livestock gene banks in order to enhance agricultural productive capacity in developing countries in particular least developed countries.

- Correct and prevent trade restrictions and distortions, in world agricultural markets, including through the parallel exports subsidies effect, in accordance with the mandate of the Doha development Round.
- Adopt measure to ensure the proper functioning of food commodity markets and their derivatives and facilitate timely access to market information, including on food reserves, in order to help limit extreme food reserves, in order to help limit extreme food price vitality.

Four main dimensions of food security according to the World Bank (n.d.) are (1) physical availability of food. This refers to the supply side of food security and it is determined by the level of food production, stock levels and net trade (2) economic and physical access to food. This is the ability of food produced both at the international and nation levels being within the reach of a common man. (3) food utilization – utilization is the way the body makes the most of various nutrients in the food (4) stability of the first three dimensions overtime.

Purpose of study

The purpose of this study was to investigate information resources management in public secondary schools; A panacea for achieving sustainable development goals in Anambra state. Specifically, the study intends to investigate;

1. The extent information resource management in public secondary schools can aid in achieving “No” poverty goal in Anambra State.
2. The extent information resources management in public secondary schools can help to achieve “zero hunger” goal in Anambra State.

Research Questions

Four research questions guided the study;

1. To what extent can information resource management in public secondary schools help in achieving SDG of “No Poverty” in Anambra State?
2. To what extent can information resources management in public secondary schools help to achieve UN sustainable development goal of “Zero hunger in Anambra State.

Method

This session of the study described the method adopted for the research. The researchers adopted descriptive survey method, with a population of 6396 which comprises of all the teachers in public secondary school in Anambra State. Using cluster and simple random method of sampling, a sample of 640 teachers were selected which is 10% of the population from each of the six zones of Aguata, Awka, Nnewi, Ogidi, Onitsha and Otuocha with a total of 263 schools. Questionnaire named Instrument for the Study of Information Management in Public Secondary School for Achievement of Sustainable Development Goals (ISIRMPSSFASDG) was developed, validated and used for data collection. The instrument has two sessions A and B. while section ‘A’ gathered data on management of information resources management in public secondary schools and achievement of SDG of No poverty in Anambra State; section ‘B’ gathered data on information resources management in public secondary schools and its ability to aid in achievement of SDG of zero hunger in Anambra state. Three experts validated the instrument – two from departments of education Administration Imo State university Owerri and Alvan Ikoku Federal College of Education Owerri respectively. One validator from the Department of Measurement and Evaluation Alvan Ikoku Federal College of Education Owerri. The reliability of the instrument yielded a coefficient value of 0.95 which is suitable for the work. Data was collected personally by the researchers. Data collected were analyzed with mean to answer research questions.

Result

This session of the work shows the analysis of data as collected. It is done in tables I and II. Each table shows the analyses of different sections of the instrument according different research question.

Research Question One: To what extent can information resources management in public secondary schools help in achieving SDGs of “No Poverty” in Anambra State?

Table I: Data collected for analysis of research question one

S/ N	Items	VHE	HE	LE	VL E	Total	X	Decision
1	Effective information resources management in public secondary schools can help in eliminating situational poverty in Anambra State	205 820	181 543	150 300	144 144	640 1807	282	HE
2	Effective information resources management in public secondary schools can aid in eradicating generational poverty in Anambra State	231 924	199 597	147 294	163 163	640 1978	3.09	VHE
3	Proper information resources management in public secondary schools can help in wiping out absolute poverty in Anambra State	197 788	240 720	102 204	101 101	640 1813	2.83	HE
4	Information resources when managed very well assists in reducing relative poverty to the barest minimum in Anambra State	231 924	179 537	105 210	125 125	640 1796	2.80	HE
5	Effective information resources management in public secondary schools can help to eliminate Rural poverty in Anambra State	199 796	245 735	170 340	26 26	640 1897	2.96	HE
6	Information resources management in public secondary schools can aid in eradicating urban poverty in Anambra State	275 1100	281 843	107 214	15 15	640 2172	3.39	VHE

Grand X = 2.98

The grand mean indicates that to a high extent information resources management in public secondary schools help in achieving SDG of “No Poverty” in Anambra State.

Research Question Two: To what extent an information resources management in public secondary schools help to achieve UN sustainable Development Goal of ‘Zero hunger’ in Anambra State.

Table II: Data collected for analysis of Research Question Two

S/ N	Items	VHE	HE	LE	VLE	Total	X	Decision
7	Effective management of information resources in public secondary schools can help end hunger and ensure access by all people to safe, nutritious and sufficient food all year round	231 924	189 567	164 328	56 56	640 1875	2.92	HE
8	Management of information resources in public secondary schools will aid in ending all forms of malnutrition including achieving by year 2025 the internationally agreed target on stunting and wasting in children under five, address nutritional needs of adolescent girls, pregnant, lactating women and older persons.	171 684	150 450	179 358	140 140	640 1632	2.55	HE
9	Proper management of information resources in public secondary schools can help double the agricultural productivity and incomes of small scale food producers	151 604	161 483	189 378	139 139	640 1604	2.50	HE
10	Management of information resources in public secondary schools can help ensure sustainable food production system and implement resilient agricultural practices that increases productivity and production, that help maintain ecosystem	161 644	175 525	139 278	165 165	640 1612	2.51	H. E
11	Effective information resource management in public secondary schools can aid by 2030 maintain the genetic diversity of seeds, cultivate plants and farmed the domesticated animals and their related wide species in Anambra State	171 684	151 453	172 344	149 149	640 1620	2.53	HE
12	Adequate information resources management in public secondary schools can help adopt measures to ensure the proper functioning of food commodity	181	106	171	182	640		

markets and their derivatives and facilitate timely access to market information, including on food reserves	724	318	342	182	1560	2.44	LE
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Grand X = 2.58

The analysis in table II above shows that to a high extent information resources management in public secondary schools help to achieve UN sustainable goal of “Zero hunger” in Anambra State.

Discussion

This session discusses in words the analysis of the data as done in tables. Table 1 analysis the data generated for answer to Research question one. As shown in the Table, the grand mean of 2.98 which is above the benchmark of 2.50 indicates that the extent to which information management in public secondary schools aids in achieving sustainable development goal of “No poverty” in Anambra State is high. This therefore without any equivocation answers the research question one as stated. This finding suggests that effective management of information in public secondary schools is very essential and it is a determinant factor for achievement of many objectives. As Fabunmi cited in Babalola and Ayeni (2009) puts it proper management of information resources enhances an organization devoid of rumour and rancor. This also means that if secondary school managers and teachers effectively harness the information via all the information resources the huge benefits cannot be over emphasized both to the school, state, and the entire nation.

Research question two analysis was done in table II. The grand mean of 2.58 which is also slightly above the benchmark is an indication that to a high extent information resources management in public secondary schools helps in achieving the sustainable Development goal of “Zero hunger” in Anambra State. This as well answers the research question two. This study revealing the correlation between these two variables is a mile stone for the world in general and Anambra State in particular. Dealing with hunger or reducing it to the bearst minimum has been a major challenge to the growing nations; especially Nigeria. As Babalola and Ayeni (2009) but it, information via internet have double edge and could be harnessed for both positive and negative outcomes. If all the information that flow via the information resources especially as concerns agriculture, food security, productivity among others are positively packaged, then the result will be great. There is bound to be indeed “zero hunger” by 2030 according to the United Nations SDG number two. All the targets of this goal as listed by (United Nations Organization (2022) as contained in this paper are all realistic.

Conclusion

The researchers having made a step by step systematic and scientific investigation on this topic thereby conclude that information is power full, and that one needs to be informed to avoid being deformed. Consequent upon this, proper management of information and all its resources is a must in all spheres of the economy especially the secondary school system where the citizens are powered from the cradle. This no doubt is an ante dot for eradication of poverty and making “zero hunger” a reality in Nigeria.

Recommendations

Based on the findings of the study the researchers therefore recommend is follows:

1. The UN should try to assist poor member nations through their various home government and agencies to acquire most of these information resources to the secondary school as well as ensure steady power supply. When this is done and properly managed, poverty will be reduced.
2. The United Nations should via its specialized agencies ensure that some special agricultural seeds that boast food production in their countries are supplied, preserved and mechanized farming are utilized in the poor member nations agricultural system. This will go a long way to reduce hunger if not eliminated completely.

Educational Implications of Findings

The findings of this study have some educational implications such as:

1. Since average citizens in Nigeria are still living below poverty level, it then means that Nigeria school systems still lacks some information resources even the little available are not put into proper utilization.
2. Despite the second finding of this study which reveals a correlation between the two variables, yet greater percentage of the population is still struggling with hunger, mal-nutrition, and famine. This means that the education managers in the secondary school system and beyond

do not properly manage the information resources at their disposals. This is so because if they do according to this study, hunger will be reduced if not wiped out.

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**ASSESSMENT OF THE IMPACT OF COVID-19 PANDEMIC ON
HUMAN ACTIVITIES IN IGBO-EZE SOUTH LOCAL GOVERNMENT
AREA, ENUGU STATE**

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Abstract

This study is an assessment of the impact of covid-19 pandemic on human activities in Igbo-Eze South Local Government Area. The study was guided by four research questions. A descriptive survey research design was adopted for the study. The sample size adopted for this study was 219 respondents which is 5% of the total population. Instrument for data collection was a questionnaire titled Impact of Covid-19 Pandemic on Human Activities questionnaire. The instrument was face validated by three experts. The reliability coefficients of 0.87, 0.74, 0.87 and 0.81 were obtained for clusters A, B, C, and D with an overall reliability of 0.82 using the Cronbach Alpha reliability method. Mean and Standard deviation were used for data analysis. Findings revealed that the extent of covid-19 pandemic impact on health, social life, economy and education in Igbo-Eze South LGA, Enugu State was high. Based on the findings, some recommendations were made, which was that: Individuals should maintain personal hygiene to avoid contamination of diseases. Personal hygiene enhances our general wellbeing and boosts our productivity.

Keywords: Assessment, Impact, Covid-19 Pandemic and Human Activities

Introduction

Coronavirus also known as Covid-19 pandemic is a global disease. That is why World Health Organization (2020) and United Nations Development Programme (UNDP) (2021) declared it a global pandemic. David (2021) stated that coronavirus disease (covid-19) is defined as illness caused by a novel coronavirus now called severe acute respiratory syndrome. Also, American Medical Association (2020) pointed out that coronavirus disease (Covid-19) is a viral respiratory illness that can have symptoms of fever, cough, muscle aches, headache, and diarrhea. Similarly, Osman (2020) opined that Covid-19, is an infectious acute respiratory disease caused by the severe acute respiratory syndrome coronavirus.

Also, Nigeria Centre for Disease Control; ([NCDC], 2020) stated that Nigeria recorded its first case of covid-19, when an Italian citizen tested positive in Lagos. Regarding the origin of covid-19, Wolf, Curtis, Wilson, Reville, and Waite (2019) stated that the first case of corona virus which later spread in the whole world is associated with Wuhan, City, Hubei Province, China. Following the same view, Wolf et al. (2019) pointed out that bats are considered as natural hosts of these viruses yet several other species of animals are also known to be a source such as camels and civet cats.

Again, World Health Organization (2020) revealed that covid-19 virus is transmitted between people through respiratory droplets and contact routes. Droplet transmission occurs when a person is in close contact with someone who has respiratory symptoms such as coughing or sneezing and is therefore at risk of having the mucosae of the mouth, nose or conjunctiva, and eyes exposed to potentially infective respiratory droplets. Moreso, World Health Organization (2021) sees COVID-19 as a disease caused by a new coronavirus, which has not been previously identified in humans. In most cases, COVID-19 has mild symptoms including dry cough, tiredness and fever, though fever may not be a symptom for some older people. Other mild symptoms include aches and pains, nasal congestion, runny nose, sore throat or diarrhea. Frankly, Covid – 19 has affected every area of human endeavors such as health, social, economy and education life of the citizens worldwide.

Researchers have shown that covid-19 have both positive and negative health impact on the country. The improvement on health facilities was boosted by the out boost of covid-19 pandemic. Both Nigerian government and international community gave attention to funding health. Among others, Odubanjo (2020) identified both positive and negative impacts of covid-19, namely that it made everybody from government to the people on the streets, realize the importance of health. A lot of private sector people also recognized the need for health system to work. Further, the author emphasized that the whole world realized the importance of health by improving on their health systems. Furthermore, covid-19 is not just a health pandemic, but also a socio-economic pandemic.

Negatively, Odubanjo(2020) stressed that, it led to loss of fund to work with, even to finance the health sector, fix hospital buildings, ensure there is steady electricity, running water, buy the right equipment for diagnosis and treatment. In continuation, the author maintained that the impacts of covid-19 in health is not just in Nigeria but globally. The management of COVID-19 has ensured that all other diseases have been neglected somewhat. Hospitals were shut down and were only attending to COVID-19 patients because they were afraid of the risk of transmission to anybody else who came in, even for routine surgeries. Women couldn't go to the antenatal clinics, or even have safe delivery in the hospital.

COVID-19 has further revealed the obvious infrastructural deficit and incompetency in healthcare systems of low- and middle-income countries like Nigeria. Even in developed countries, like the United States of America, healthcare systems are not spared by the overwhelming impacts of covid-19 cases on their infrastructures. Office of Disease Prevention and Health Promotion (2020) stated that public health infrastructure includes three key components required to plan, deliver, and evaluate public health services. These components are an adequate qualified work-force, reliable data and information systems, and capable and coordinated agencies.

Before the COVID-19 pandemic, Edeme, Emecheta, and Omeje (2017) stated that the health infrastructures and services in Nigeria were poor and inadequate despite the public health challenges in the country. These include, child and maternal mortality, malnutrition, and deaths from non-communicable diseases, among others. Nigeria, like other developing countries, has continued to suffer from small budgetary allocation for health, mismanagement of funds, and rural-urban disparity in the few existing healthcare infrastructures.

Although COVID-19 negatively impacted the healthcare system in Nigeria, there had been some notable infrastructural developments brought about by the COVID-19 pandemic. First, World Health Organization (WHO) (2020) stated that the healthcare system gained significantly higher attention from the government and international organizations as a result of the covid-19 pandemic compared to the pre-covid-19 period. The country has experienced a surge in healthcare financing, prompt agreement to demands, and increased the number of ventilators and some other machines, molecular laboratories, and bed spaces in hospitals. Before the COVID-19 pandemic, Nigeria could only boost less than 500 ventilators in a good working condition to manage severe COVID-19 cases.

Furthermore, Ezeamalu (2020) stated that the United States of America donated 200 new ventilators to help Nigeria in managing COVID-19 patients, which will play a major role in infrastructural development for managing patients requiring intensive care, even after the COVID-19 pandemic. Newly constructed isolation centers in the country are world-class and well equipped with an adequate number of bed spaces and less overcrowding. Besides, some of the already existing health facilities were also renovated and equipped. The author noted that as the number of active cases in the country reduces, many of these empty isolation centers are being closed. They may be converted to new primary healthcare centers, specialist hospitals, and maternity clinics, among others. Hence, the number of bed spaces increases in the country, improving the healthcare delivery quality in these standard facilities.

In addition, Onwuzoo (2020) observed that at the time when Nigeria recorded its index case, there were only four molecular laboratories capable of testing for COVID-19. However, within few months after the index case in Nigeria, there was a rapid surge in the number of molecular laboratories all over the country. Currently, there are above 60 public laboratories capable of conducting COVID-19 PCR testing in Nigeria. Many of these newly constructed diagnostic centers are well equipped with sophisticated diagnostic laboratory equipment. These facilities are used for COVID-19 diagnosis and other diseases. The COVID-19 pandemic also facilitated the procurement of well-equipped ambulances and the recruitment of skilled drivers and personnel to convey individuals with COVID-19 symptoms.

Furthermore, Central Bank of Nigeria(2020) stated that 100-billion-naira credit intervention was undertaken by the Central Bank of Nigeria to support local pharmaceutical companies and other health-related stores to upscale in order to meet the increasing demand for medical facilities and

services due to the COVID-19 pandemic. According to CBN, this huge sum provides ingenious businesses in the health value chain with a rare opportunity to expand and improve the quality of health products and services in the country, even after the COVID-19 pandemic.

Equally, Ejiogu, Okechukwu and Ejiogu (2020) stated that the unprecedented COVID-19 pandemic has put a strain on the country's health and economy due to the closure of businesses and lockdown regulations within and outside the country. A 500-billion-naira COVID-19 Intervention Fund was paid, amounting to about 4.7% of the 2020 national budget for upgrading health facilities, supporting social interventions, and other expenditures as a result of the COVID-19 and its policies. The authors added that this budgetary cut increases financial constraints on other sectors, including the salaries of health workers. Besides, the diversion of attention and resources from all other public health challenges as a result of the COVID-19 pandemic may impede various infrastructural development to address these public health concerns. For example, the lockdown has affected the vaccination programs for pregnant women and children and also antiretroviral therapy for HIV/AIDS patients.

Covid-19 constituted a lot of limitations to social life of people ranging from confining people in their houses, quarantine of travelers, distancing from each other, restriction in travels etc. In agreement United Nations (2020) stated that if not properly addressed through policy, the social crisis created by the COVID-19 pandemic may also increase inequality, exclusion, discrimination and global unemployment in the medium and long term.

In continuation, United Nations (2020) stated that the covid-19 outbreak affected all segments of the population. The effect is particularly detrimental to members of those social groups in the most vulnerable situations. It continues to affect populations, including people living in poverty situations, older persons, persons with disabilities, youth, and indigenous peoples. Moreover, Tchuda (2021) stated that the covid-19 (coronavirus) pandemic has clearly affected all areas of social activity. Both governments and nongovernmental organizations around the world are mobilizing to find ways of arresting its harmful impact. Furthermore, covid-19 has altered almost all social interaction within the society including travelling. The novel disease has restricted travelling, supply chains, community and social ties (UNDP, 2021). In the same manner WHO (2020) opined that all countries with community transmission should seriously consider postponing or reducing mass gatherings that bring people together and have the potential to amplify disease and support the recommended best practice of physical distancing.

The disease interrupted the social order which people are used to by putting restrictions on hugging and handshake. Some of the protocols of NCDC (2020) put a ban on handshake, hug, and insisted on wearing of facemask before entering any public place, compulsory handwashing with a running water, use of alcohol sanitizer, compulsory social distancing, and restriction on travel except the movement of foodstuff. There are some elements related to the pandemic that affect more the population, which include separation from loved ones, loss of freedom, uncertainty about the advancement of the disease and the feeling of helplessness (Li & Wang, 2020).

The novel disease was responsible for huge fall on the economy. Businesses were shut down for months, goods decayed and expired. Some expert personnel lost their lives while some were sacked because their employers cannot afford to pay. Jonathan and Tara (2021) stated that covid-19 introduced lockdown measures restricting people's ability to go to work, and business trips. Also, it made the cost of items high especially for food items that are crucial for consumption among the poor and vulnerable.

Following the same view, Aimee and Akaoma (2021) stated that manufacturing activities in Nigeria was halted in response to the government's shutdown directives, affecting a variety of businesses that are directly or indirectly related to manufacturing, such as the cement, steel, metal, plastic, and glass production industries. The authors opined that many of these enterprises suffered from low income due to employee-related issues like premature death, absenteeism, and productivity losses, which resulted in a negative supply shock caused by global supply chain disruptions and factory closures.

Furthermore, the drop in market indices was primarily due to the pandemic. It had a significant impact on businesses and financial markets, culminating in an unanticipated economic crisis and a flight to safety, and the banking industry. Despite being only indirectly affected, saw a significant impact on its operations and revenue-generating activities (Onwuzoo, 2020). In addition, Onwuzoo, opined that regardless of the fact that banking services can be provided remotely and without direct customer interaction, the sector's role as a provider of payment, savings, credit, and risk management services extends the negative impact of the Covid-19 crisis to banks and other financial institutions. Increased loan demand, lower non-interest incomes, and a decline in the value of bonds

and other traded financial instruments are just a few of the effects, all of which resulted in increased bank losses.

In the same vein, Gondwe (2020) asserted that covid-19 have generated significant setbacks for African economies mainly in terms of lost productivity and trade both within and among countries. Specifically, these measures have significantly strained almost all key growth enhancing sectors of many economies, and ultimately, on their overall income. Equally, Umeh (2021) emphasized that the economic impact of the Covid-19 pandemic has worsened the plight of many families living in poverty and left many people struggling to afford food and meet other basic needs. It has also disrupted the activities of petit traders.

Moreover, United Nations (2020) stated that covid-19 has led to unemployment, and no unemployment benefits or other protection for domestic worker and casual workers. United Nations also added that while everyone is facing unprecedented challenges, women are bearing the brunt of the economic and social fallout of COVID-19. Truly, Covid-19 has interrupted the world of work. Millions of enterprises face an existential threat. Informal economy workers are particularly vulnerable because the majority lack social protection and access to quality health care and have lost access to productive assets. Without the means to earn an income during lockdowns, many are unable to feed themselves and their families (Kimberly, 2020).

Education being the core engine that drives every development in a country was grossly set back by covid -19. Schools were shut down for months and students were suddenly forced to study online. Many students who do not have access to personal computer or laptop lost within the period.

As purported by Philani (2020) that since the outbreak of covid-19 in late December 2019, COVID-19 has wreaked havoc across the world and like any critical sector, education has been hit hard. Students, schools, colleges and universities have been deeply impacted. Furthermore, the author stated that school closure prompted by the pandemic reduced children's opportunity to learn. Households with children who attended school prior to school closures due to the pandemic reported that their children did not engage in any learning or education activities during the lockdown.

Hence, this situation may be more severe in poorer households when compared to wealthier households, because wealthy households may employ the services of a home teacher for their children (World Bank, 2020). Supporting the above, John Moores University (2020) stated that children and young people may be hit hardest by the social distancing and lockdown measures because, school closure's risk is exacerbating existing inequalities in educational attainment.

In the same way, the authors highlighted that education of university students shifted from face-to-face classes to online classes which was not an easy step for students, especially those who do not have access to laptops and internet facilities at home or those who take courses that cannot be taught online.

In addition, students may be uncertain about assessment procedures for online assignments and projects, and will suffer when they do not have an internet facility to participate in the evaluation process, and this could adversely affect their grade averages (Sahu, 2020). Similarly, the prolonged closure of schools and educational centers, combined with the shock to the economy and the health of the population, has implications for children's present and future development, particularly those living in more vulnerable households. As a result of the crisis, children are at greater risk of dropping out of school and of lagging behind in their studies, food, insecurity, abuse, physical and emotional health problems, and, loss of learning, with potentially devastating consequences for an entire generation (Jaramillo, 2020).

Also, Robin, Harry, and James (2021) stated that school closures due to COVID-19 have brought significant disruptions to education across the world. Emerging evidence indicate that the pandemic is giving rise to learning losses and increases in inequality. In agreement, Andreas (2020) stated that the COVID-19 pandemic also had a severe impact on higher education as universities closed their premises and countries shut their borders in response to lockdown measures.

Although higher education institutions were quick to replace face-to-face lectures with online learning. These closures affected learning and examinations as well as the safety and legal status of international students in their host country. However, the researcher feels the same scenario buttressed earlier may have affected Igbo-Eze South dwellers. This has prompted the researchers to assess the impact of covid-19 pandemic on human activities in Igbo-Eze South Local Government Area, Enugu State.

Research Questions

The study was guided by the following research questions:

1. What is the extent of covid-19 impact on health in Igbo-Eze South LGA of Enugu State?
2. What is the extent of covid-19 impact on social life in Igbo-Eze South LGA of Enugu State?
3. What is the extent of covid-19 impact on economy in Igbo-Eze South LGA of Enugu State?
4. What is the extent of covid-19 impact on education in Igbo-Eze South LGA of Enugu State?

Method

The design adopted for this study was descriptive survey research design. The population of the study comprises 4,385 registered members of 10 Town Union Development, in Igbo-Eze South Local Government Area, Enugu State. Proportionate Stratified random Sampling technique was used to select 219 members which is 5% of the total population. For the registered members, 5% was used and the rationale for selecting 5% of the subject is in agreement with Nwana (1990), that if the populations for a study is a few hundred, a 40 percent or more sample will do, if many hundreds, a 20 percent sample will do, if a few thousands a 10 percent sample will do, and if several thousands, a five percent or less sample will do.

A questionnaire titled Impact of Covid-19 Pandemic on Human Activities questionnaire was used to collect data. The instrument for the data collection was validated by three experts. To ascertain the reliability of the instrument a trial test was carried out by giving out 25 copies of the instrument to rural dwellers in Udenu Local Government Area. Reliability coefficient of 0.87, 0.74, 0.87 and 0.81 was generated using Cronbach Alpha Statistical Tool. Therefore, the overall reliability of 0.82 shows that the instrument is reliable. The researchers and their assistants distributed 219 copies of the instrument, 9 copies were not returned. Therefore, 210 copies were correctly filled and used for the study. Data collected from the respondents were analyzed using mean and standard deviation.

However, in interpreting the responses the real limit of numbers was adopted as follows: boundary range 3.50 – 4.00 indicates very high extent, 2.50 – 3.49 indicates high extent, 1.50 -2.49 indicates low extent and 1.00 – 1.49 indicates never.

Result

Research Question One: To what extent does covid-19 pandemic impact on health in Igbo-Eze South LGA of Enugu State?

Table 1: Mean responses on the extent covid-19 pandemic impacted on health (210)

S/N	Item Statement	Mean	SD	Decision
1.	Covid-19 caused the restriction of access to health care in hospitals	2.91	.51	HE
2.	Patients were exposed to infection of covid-19	2.68	.64	HE
3.	Many hospital workers were infected with covid-19	2.74	.58	HE
4.	Covid-19 affected the treatment of other sickness as all attention was focused on getting the world rid of covid-19 virus	3.74	.43	VHE
5.	The early testing of covid-19 curtails the spread of the virus.	3.90	.30	VHE
6.	Covid 19 pandemic attracted increased number of ventilators, machines, molecular laboratories and bed spaces in hospitals	3.55	.65	VHE
7.	Reduced the population of a country by killing people in hundreds of thousands	3.46	.65	HE
8.	Procurement of well-equipped ambulances to convey individuals with covid-19 symptoms	3.16	.54	HE
9.	A surge in health financing and prompt agreement to demands	3.63	.48	VHE
Grand Mean		3.31	0.53	HE

Table 1 shows that items 4,5,6 and 9 had the highest means scores. Their means falls within the ranges of 3.50-4.00. This means that Covid- 19 impacted health to a very high extent. Items 1,2,3,7 and 8 have their means within the range of 2.50 – 3.49. This means that Covid- 19 impact on health was to a high extent. On the whole, a grand mean of 3.31 was calculated for entire cluster, showing that Covid -19 to a high extent impacted on health in Igbo –Eze South Local Government Area, Enugu State.

Research Question Two: To what extent does covid-19 pandemic impact on social-life in Igbo-Eze South LGA of Enugu State?

Table 2: Mean responses on the extent covid-19 pandemic impact on social-life (210)

S/N	Item Statement	Mean	SD	Decision
1.	Covid-19 insisted on wearing facemask before entering public places	3.23	.44	HE
2.	It introduced compulsory washing of hands with running water	3.41	.86	HE
3.	It insisted in the use of alcohol sanitizer	3.10	.50	HE
4.	It insisted in compulsory social distancing	3.66	.47	VHE
5.	Covid-19 restricted hugging and handshake	3.40	.51	HE
6.	Covid-19 affected crowds in conferences, birthdays and marriage ceremonies	3.45	.64	HE
Grand Mean		3.38	0.57	HE

Table 2 shows that item 4 has means rating of 3.66 which is within a range of 3.50 -4.00. This means that compulsory social distancing impacted on the social life of the people to a very high extent. Items 1,2,3,5 and 6 had mean ratings within the range of 2.50 – 3.49. It means that Covid -19 impacted on the social life of the people to a high extent. However, a grand means of 3.38 was computed for the cluster, showing that Covid-19 impacted on the social life of Igbo –Eze Local Government Area, Enugu State to a high extent.

Research Question Three: To what extent does covid-19 pandemic impact on economy in Igbo-Eze South LGA of Enugu State?

Table 3: Mean responses on the extent covid-19 pandemic impact on economy (210)

S/N	Item Statement	Mean	SD	Decision
1.	Covid-19 has led to increase in unemployment and poverty within the society.	3.74	.59	VHE
2.	It has increased the cost of food items	2.82	.37	HE
3.	Covid-19 caused the shutdown directives to affect a variety of businesses that are related to manufacturing	2.82	.37	HE
4.	Many enterprises suffered from low income due to employee death, absenteeism and productivity loses as a result of covid-19	2.82	.37	HE
5.	Handicapped the activities of petit traders	2.82	.37	HE
6.	Covid-19 has restricted business trips and affected supply chains	2.80	.60	HE
Grand Mean		2.97	0.44	HE

Table 3 shows that item 1 has means 3.74 within the range of 3.50 -4.00. This means that increase in unemployment and poverty within the society caused by COVID -19 impacted on the economy to a very high extent. Also items 2,3,4,5 and 6 have their means ranging between 2.50 – 3.49. This means that covid-19 have impacted on the economy to a high extent. However, the grand means of 2.97 obtained shows that covid-19 impacted on the economy of Igbo-Eze South Local Government Area, Enugu State to a high extent.

Research Question Four: To what extent does covid-19 pandemic impact on education in Igbo-Eze South LGA of Enugu State?

Table 4: Mean responses on the extent covid-19 pandemic impact on education (210)

S/N	Item Statement	Mean	SD	Decision
1.	Covid-19 led to school closure for months	2.91	.51	HE
2.	Covid-19 shifted learning from face-to-face contact to online classes	2.68	.64	HE
3.	Students who could not have access to laptops and internet facilities at home lost the opportunity to learn	2.74	.58	HE
4.	It had adverse effect on courses that could not be taught online	3.74	.43	VHE
5.	Covid-19 caused students to drop out of school and lag behind in their studies	3.90	.30	VHE
Grand Mean		3.19	0.49	HE

Table 4 shows that items 4 and 5 falls between the range of 3.50 – 4.00. This shows that courses not taught online and students drop out of school and lag behind in their studies as a result of

covid-19 impacted on education to a very high extent. Items 1,2 and 3 have their range from 2.50 - 3.49. This shows that Covid -19 impacted of education a high extent. Therefore, the grand mean score of 3.19 revealed that covid-19 pandemic impact on education in Igbo -Eze South LGA, Enugu State to a high extent.

Discussion

Finding revealed that the extent covid-19 pandemic impact on health in Igbo-Eze South LGA of Enugu State was high in both negative and positive aspects. Negatively, COVID-19 caused the restriction of access to health care in hospitals for fear of transmission. It affected the treatment of other sicknesses as all attention was focused on getting the world rid of covid-19 virus. The finding is in consonant with Odubanjo (2020) who maintained that the management of covid-19 has ensured that all other diseases have been neglected. Hospitals were shut down and were only attending to Covid-19 patients because they were afraid of the risk of transmission to anybody else who came in, even for routine surgeries. Women couldn't go to the antenatal clinics, or even have safe delivery in hospital. Those who needed cancer screening couldn't get it. Positively, Covid 19 pandemic attracted increased number of ventilators, machines, molecular laboratories and bed spaces in hospitals and procurement of well-equipped ambulances to convey individuals with covid-19 symptoms, and a surge in health financing and prompt agreement to demands. The finding agrees with World Health Organization (WHO), (2020) that the healthcare system gained significantly higher attention from the government and international organizations as a result of the covid-19 pandemic compared to the pre-covid-19 period.

The extent covid-19 pandemic impact on social-life in Igbo-Eze South LGA of Enugu State was high. Covid-19 insisted on wearing facemask before entering public places, compulsory hands washing with running water and soap, use of alcohol sanitizer, social distancing. Covid-19 restricted hugging and handshake, and stopped gathering of crowds in conferences, birthdays and marriage ceremonies to eliminate the spread. The findings supports Tchuda (2021) which stated that the covid-19 pandemic has clearly affected all areas of social activity, and both governments and nongovernmental organizations around the world are mobilizing to find ways of arresting its harmful impact. In the same manner, WHO (2020) opined that all countries with community transmission should seriously consider postponing or reducing mass gatherings that bring people together and have the potential to amplify disease and support the recommended best practice of physical distancing. Covid-19 interrupted the social order which people are used to by putting restrictions on hugging and handshake.

The extent covid-19 pandemic impact on economy of Igbo-Eze South LGA, Enugu State was high. COVID-19 has led to an increase in unemployment and poverty within the society. It has increased the cost of food items, and shutdown directives to affect a variety of businesses that are related to manufacturing. Many enterprises suffered from low income due to employee death, absenteeism and productivity losses, handicapping the activities of petit traders, business trips and supply chains. The study lends credence to Aimee and Akaoma (2021) that manufacturing activities in Nigeria were halted in response to the government's shutdown directives, affecting a variety of businesses that are directly or indirectly related to manufacturing, such as the cement, steel, metal, plastic, and glass production industries. Many of these enterprises suffered from low income due to employee-related issues like premature death, absenteeism, and productivity losses, which resulted in a negative supply shock. In agreement Umeh (2021) stated that the economic impact of the Covid-19 pandemic has worsened the plight of many families living in poverty and left many people struggling to afford food and meet other basic needs.

The extent COVID-19 pandemic impact on education in Igbo-Eze South LGA of Enugu State was high. Covid-19 led to school closure for months, shifted learning from face-to-face contact to online classes, students who could not have access to laptops and internet facilities at home lost the opportunity to learn. It had adverse effect on courses that could not be taught online, students to drop out of school and lag behind in their studies. The finding agrees with Jaramillo (2020) that the prolonged closure of schools and educational centers, combined with the shock to the economy and the health of the population, has implications for children's present and future development, particularly those living in more vulnerable households. He further opined that as a result of the crisis, children are at greater risk of dropping out of school and of lagging behind in their studies, food, insecurity, abuse, physical and emotional health problems, and, loss of learning, with potentially devastating consequences for an entire generation.

In support of the finding, Robin, Harry. and James (2021) concurs that school closures due to covid-19 have brought significant disruptions to education across the world, emerging evidence

indicate that the pandemic is giving rise to learning losses and increases in inequality. More so, Andreas (2020) lends credence that covid-19 pandemic also had a severe impact on higher education as universities closed their premises and countries shut their borders in response to lockdown measures. Although higher education institutions were quick to replace face-to-face lectures with online learning, these closures affected learning and examinations as well as the safety and legal status of international students in their host country.

Conclusion

COVID -19 was a threat to people's life and activities because it can easily be transmitted. Many who were affected lost their lives. COVID -19 exposed the citizens to the abnormal life of social distancing, nose masks, no hugging and hand shake, no gathering as crowds etc. Many churches, markets, hospital, industries etc were vacated and all production work ceased. This brought a lot of hardships on the masses which include hunger, unemployment, death, poverty, business losses etc. However, the prompt attention to COVID -19 pandemic from Nigerian government and international organizations arrested the challenge from further damage on the citizens.

Recommendations

Based on the findings of the study, the following recommendations were made.

1. Individuals should maintain personal hygiene to avoid contamination of diseases.
2. The government, through Nigeria Centre for Disease Control (NCDC) should research on drug or vaccination that will control the spread of outbreak of any pandemic.
3. The government and all economic institutions should map out strategies to sensitize the populace on the ways to manage their economic activities during the outbreak of pandemics.
4. The government through the ministry of education should improve on the use of digital learning.
5. Individuals should think out strategies to recover their waste as a result of covid-19 pandemic.

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**IMPROVING OPEN AND DISTANCE LEARNING IN ENUGU STATE
USING INTERACTIVE VIDEO TECHNOLOGY**

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Abstract

The study focused on the extent of improvement of Open and Distance Learning in Enugu State using through the use of interactive video technology. A sample size of 300 students were obtained using simple random sampling technique. An instrument titled Interactive Video Technology in Open and Distance Learning (IVTODL) was used to collect data for the study. Overall reliability co-efficient of 0.78 was generated using Cronbach Alpha Statistical Tool. SPSS was used for data analyses to derive Mean and Standard deviation. The findings revealed that: the extent to which interactive video technology improves teaching and learning in Open and Distance Learning was high. Based on the finding, some recommendations were made, among which was that: National Open University of Nigeria administrators should endeavour to increase the varieties of interactive video technologies used in the programme, they should introduce the use of interactive technologies such as Smartzer, Cinema8, GoEssential, Mindstamp Pageflow, and TouchCast. These interactive video technologies will help to enhance teaching and learning in NOUN. Again, National Open University of Nigeria curriculum planners should devise mechanism of assessing extent interactive video technology improves teaching and learning this will help to provide learners and instructors with a satisfactory degree of interactivity, boost learners' retention, and provide learners the opportunity to study at their own pace and convenience.

Keywords: Interactive video technology, Interactivity, Open and Distance Learning

Introduction

Open and distance learning is an educational arrangement which seeks to remove all barriers or restrictions to learning such as aptitude test or other strict screening procedures. It is synonymous with distance education and can be used inter-changeably. Timothy (2019) define open and distance learning (ODL) as an educational system characterized by the physical separation between educators and learners. This approach involves delivering instruction through a diverse range of media, including print materials and various information communication technologies (ICT). ODL primarily serves individuals who may have missed educational opportunities earlier in life or have been unable to access traditional face-to-face formal education due to socioeconomic, career, family, or other factors. In agreement with this perspective, Wilson (2017) emphasize that distance education aims to provide valuable learning opportunities that are conveniently accessible to learners, regardless of the educational institution offering these opportunities. The focus is on delivering education at locations and times that suit the learners' needs and circumstances. Moreover, United Nations Educational, Scientific and Cultural Organization (UNESCO) (2018) recognizes open and distance learning as one of the rapidly expanding domains within the field of education. This growth has been significantly amplified by the advancements in Internet-based information technologies, including the World Wide Web. These technologies have introduced innovative approaches that prioritize widening access to education and training, liberating learners from the constraints of time and place, and offering flexible learning opportunities to both individuals and groups of learners.

Open and distance learning is a well-designed programme packaged to fill the vacuum created by regular face to face education. Supporting the above, John and Ethelbert (2012) see distance learning as a programme which supports the idea that time and space should not be a constraint to learning. It is basically the type of education without restrictions where the facilitator is often not physically present with the learners, which makes the learning dependent on other types of communication between the learner and the teacher, other than the regular face-to-face experienced in

the regular and children type of education. In fact, this type of learning has enabled individuals who for reasons of social, economic, academic or other hindrances could not utilize the earlier educational opportunities available to them as youngsters, but now have another chance to amend their situations by studying for and obtaining the desired degrees and qualifications mainly on part-time basis using different kinds of technology as aids to learning. These technologies enhance interactivity in teaching and learning.

Interactivity is a two-way communication between the learner and the tutor or the education service providers and the receivers. Interactivity within the realm of education has evolved significantly in recent years. Tomei (2015) provides a contemporary perspective, describing interactivity as the critical, inner dialogue within a student's mind, fostered and nurtured by the learning environment. This dynamic process serves as the cornerstone for effective learning experiences. Interactive learning, as conceptualized in the modern context, involves the exchange and sharing of knowledge resources among innovators, suppliers, and clients, which cultivates an environment conducive to innovation (Smith, 2018). This collaborative approach transcends traditional boundaries and encourages the co-creation of knowledge. The advent of interactive video technology, as elucidated by Yiğit (2016), revolutionizes communication by enabling synchronous, face-to-face interviews among individuals or groups separated by geographical distances. This technology leverages cameras, microphones, and telecommunication networks to facilitate real-time interactions, thus redefining the learning landscape. Interactive video technology finds its purpose within teaching and learning, serving as a versatile tool in education (Wang, 2020). Through the integration of video and audio-visual aids, educators harness its potential to engage learners, making complex concepts more accessible and comprehensible. In the realm of open and distance learning, various forms of interactive video technology are harnessed to achieve diverse learning objectives. Stewart (2017) emphasize its ubiquitous presence in e-learning applications across educational institutions. It not only fosters social connections but also recreates an environment closely resembling the traditional classroom setting, bridging geographical gaps.

Furthermore, Chris (2019) elaborate on the rich array of technologies that enhance interactivity in contemporary learning environments. These include cable television, satellite transmissions, audio and video teleconferencing, digital whiteboards, chat-room applications, fax, educational CD-ROMs, video-films, audio tapes, compressed video, courses supported by the World Wide Web, online bulletin boards, and electronic mail (e-mail). These technologies collectively amplify engagement and interactivity, making learning a dynamic and collaborative process. Furthermore, Knerl and Hayes (2020) listed other interactive video technologies used in open and distance learning, thus: Google Classroom, Pear Deck, Blackboard, Coursera, Canvas, Edpuzzle, Khan Academy, Edmodo, Socrative, Loom. These interactive video technologies enhance academic achievement in open and distance learning.

Interactive video technology has positive effect on open and distant learners. Buljan (2017) identified the effect of using interactive video technology in ODL to include high impact, high learner engagement, meeting the required cognition level, appealing to varied learner profiles, leverage on the current trends, and enhancing mobile learning. This means that interactive video technology enables one to be fully engaged in the learning process. Also, Sam (2018) outlined four effects of interactive video technology in ODL thus: It allows learners to access it through multiple devices, including desktop and laptop computers, smartphones, and tablets; It allows learners to direct their own learning based on the type of content that they need to learn; Well-designed interactive video engages viewers through the overall narrative and the character development, it also allows them to drive their own experience through the decisions that they make; and It encourages speed and flexibility. Interactive video technology also encourages micro learning, and allows a learner to learn at his own pace.

In addition, Centre for Teaching Support and Innovation (2018) stated that interactive video technology can help students to: learn new digital literacy skills; improve knowledge retention and understanding; increase class participation and motivate students; build community; connect students to each and the global community; become an effective member of an online community; improve student writing (through writing for peers, feedback); learn a different style of writing; go beyond text, e.g., images, video, design. Interactive video technology also has many advantages. In education, interactive video technology has taken on a transformative role, offering individuals the invaluable chance to engage with peers and subject matter experts situated in diverse locations through video conferencing (Gillies, 2017). This powerful medium transcends geographical boundaries, facilitating real-time, face-to-face communication and collaboration, thereby enriching the learning experience. Furthermore, interactive video technology plays an important role in mitigating the sense of isolation experienced by individuals participating in courses from disparate locations, as highlighted by Symth

(2019). This technology fosters a sense of connectedness and community among learners, effectively combating the loneliness that distance education can sometimes entail. Learners find solace and camaraderie in the virtual presence of their peers, fostering a supportive and inclusive learning environment. However, there is no clear knowledge of the effects of interactive video technology in Enugu State.

Furthermore, the effect of interactive video technology may be hampered by several factors. Yozwiak et al. (2010) stated that despite the use of interactive video technology, with its synchronous visually and auditory, in distance learning, it is seen that it cannot adequately meet the expectations of the students. Being unable to have eye contact with instructor in activities such as brainstorming, question-answer and discussion; hinders the students to establish an intimate relationship with the instructor by not feeling that the instructor is beside them (Karal et al., 2011). Hence, courses conducted through interactive video technology often perceived by students as akin to televised programs (Bozkaya, 2017). This perspective highlights the need for more interactive and engaging approaches in online education to bridge the gap between passive viewing and active learning. Moreover, the occurrence of link breaks within interactive video sessions can elicit frustration among students. Such interruptions can create a perception that they are not genuine participants in the learning process (Gillies, 2019). As a result, addressing these technical challenges is crucial to maintaining a positive and effective online learning experience.

To address the obstacles hindering the effective use of interactive video technology in open and distance learning (ODL), various strategies and solutions have emerged in recent years (Smith, 2020). These encompass advancements in technology infrastructure, instructional design, and user support to ensure a seamless and engaging online education environment. Yiğit and Karal (2014) identified the following as the solutions to the problems hindering the use of interactive video technology in ODL thus; the instructor should have an approach which is supportive for students to participate to the interaction and should choose teaching methods and techniques that serve this purpose; precautions should be taken to minimize technical problems during the course as possible; using cameras that focus on faces and high bandwidth, more advanced technologies can be used on behalf of providing visual clues and eye contact; and giving minor assignments on behalf of being active in the course, students can be asked to present them. The extent to which interactive video technology have impacted the open distant learners in Enugu State is not known.

Interactive video technologies enhance academic achievement in open and distance learning. In NOUN Enugu State, there is the provision of e-courseware. E-courseware is a repository of digital courses. Only distance education students can have access to it. However, many distance education students in Enugu State do not have the necessary gadgets to enable them explore the available online resources. NOUN (2013) stated that the management of NOUN prohibits the use of its e-Courseware for; commercial, financial purposes other than educational. The e-Courseware is a repository of available digital course material of the National Open University that will help students in their course of studies. Also, NOUN stated that, to be able to read any of the course materials in this library, the student must have Adobe Acrobat reader installed on their computer. The courseware has a feature which allows it to be filtered according to Faculty, Semester and Level. However, the availability, usage and effect of interactive video technology in open and distance learning centres in Enugu State is not known. The extent to which students access learning materials through interactive video technology is not known. Also, there is no clear knowledge of the extent interactive video technology has impacted ODL, hence, the researcher examined interactive video technology in teaching and learning in open and distant learning in Enugu State.

Statement of the problem

Open and distance learning is an educational arrangement which seeks to remove all barriers or restrictions to learning such as aptitude test or other strict screening procedures. It is synonymous with distance education and can be used inter-changeably. Interactive video technologies should be used to enhance academic achievement in open and distance learning. However, the availability, usage and effect of interactive video technology in open and distance learning centres in Enugu State is not known. The extent to which students access learning materials through interactive video technology is not known. Also, there is no clear knowledge of the effects or the extent interactive video technology has impacted ODL. Hence, the researcher is set to study interactive video technology in open and distant learning in Enugu State.

Research Question

The study was guided by two research questions

1. To what extent does interactive video technology improve teaching and learning in distance learning in Enugu State?
2. What are the challenges to the provision of interactive video technology in open and distance learning in Enugu State?

Method

The study adopted descriptive survey research design. Descriptive survey aims at collecting data on, and describing in a systematic manner the characteristics, features or facts about a given population (Nworgu, 2015). The study was conducted at National Open University of Nigeria (NOUN) Enugu study centre. The choice of the area was because NOUN has its study center there, and the fact that the researchers are conversant with the area. The population of the study comprised 3,000 students of the National Open University of Nigeria, Enugu study centre. The sample size adopted for this study is 300 students which is 10% of the entire population. Simple random sampling technique was adopted for this study. Here, the researcher randomly selected 10% of the students. A questionnaire instrument titled the Interactive Video Technology in Open and Distance Learning (IVTODL) was used to collect data relevant for this study. To determine the validity of the instrument the questionnaire was face validated by three experts. Two from the Department of Adult Education and Extra-Mural Studies and one from Measurement and Evaluation unit of the Department of Science Education, all from University of Nigeria, Nsukka, to ascertain the relevance of the instrument and its appropriateness to the study. After thorough assessment, the validators recommended that some items should be removed or replaced with other items. The corrections made was used to draft the final copy of the instrument.

The reliability of the instrument was tested by administering copies of the questionnaire to 20 students of National Open University Nigeria Opi study centre who are different from the study area but have the same characteristics and shares the same experience in terms of mode of study. Overall reliability co-efficient of 0.78 was generated using Cronbach Alpha Statistical Tool. The data was analyzed using SPSS to generate the Mean and Standard Deviation.

Results

Research Question One: To what extent does interactive video technology improve teaching and learning in distance learning in Enugu State?

Table 1: Mean and standard deviation ratings of the respondents on the extent interactive video technology improves Open and Distance learning in Enugu State, n= 300

S/N	Item Statement	Mean	Std.	Decision
1	Technological innovations provide learners and instructors with a satisfactory degree of interactivity.	2.69	.69	Accepted
2	Interactive video technology is essential for effective teaching and learning of all courses.	2.57	.90	Accepted
3	Interactive video technology boast learners' retention.	2.75	.58	Accepted
4	Interactive video technology gives learners the opportunity to study at their own pace and convenience.	2.81	.89	Accepted
5	Interactive video technology offers flexibility to instructional delivery.	3.11	.93	Accepted
6	Interactive video technology makes lesson appealing and interesting	3.18	.65	Accepted
7	The major selling point of Interactive video technology is that it is engaging and compelling.	2.56	.57	Accepted
8	Interactive video technology increases learners' participation	2.62	.58	Accepted
9	Interactive video technology facilitates personalized learning since they allow learners to act independently	2.81	1.06	Accepted
Grand Mean		2.78	0.76	Accepted

The above table revealed that the mean ratings of the respondents range from 2.56-3.18, with a grand mean of 2.78 and standard deviation of 0.76. This therefore, show that the respondents

accepted all the items in this cluster as the extent interactive video technology improves teaching and learning in Open and Distance learning Enugu State

Research Question Two:What are the challenges hindering the provision of interactive videotechnology in open and distance learning Enugu State?

Table 2: Mean and standard deviation responses of the respondents on the challenges hindering the provision of interactive video technology in open and distance learning Enugu State

S/N	Item Statement	Mean	Std.	Decision
10	The cost of purchasing interactive video technology gadgets is high	2.67	.75	Agreed
11	The cost of training teachers and administrators to operate interactive video technologies is time consuming and very expensive.	3.15	.64	Agreed
12	Inadequate trained facilitators.	2.78	.49	Agreed
13	Lack of steady power supply for the smooth running of the programme.	3.33	.71	Agreed
14	Lack of technical know-how	2.95	.67	Agreed
15	Inability to access the internet and other telecommunication facilities affects the use of interactive video technology.	3.10	.90	Agreed
16	Lack of proper management.	3.31	.59	Agreed
17	Lack of orientation and proper guide on the use of instructional technologies.	3.18	.85	Agreed
Grand Mean		3.05	0.70	Agreed

Table 2 above show the mean and standard deviation responses of the respondents. From the table, the mean responses of the respondents range from 2.67-3.33, with a grand mean of 3.05 and standard deviation of 0.70. This shows that the respondents accepted all the items in this cluster as the challenges hindering the provision of interactive video technology in open and distance learning Enugu State

Discussion of Finding

The finding show that the extent interactive video technology improves teaching and learning in NOUN Enugu State study centre was high. This is because the respondents agreed that technological innovations provide learners and instructors with a satisfactory degree of interactivity; Interactive video technology is essential for effective teaching and learning of all courses; Interactive video technology can boast learners' retention, supporting the above, Papadopoulou and George (2016) stated that interactive video presents knowledge in an attractive and consistent manner, it improve the teaching methods and increase the learning outcome. Furthermore, Interactive video technology gives learners the opportunity to study at their own pace and convenience; Interactive video technology offers flexibility to instructional delivery; Interactive video technology makes lesson appealing and interesting; The major selling point of Interactive video technology is that it is engaging and compelling. Hence Interactive videos facilitate differentiated and personalized learning since they allow learners to act independently, follow their path and maintain their pace (Schoeffmann et al., 2015). Interactive video technology increases learners' participation; Interactive video technology facilitates personalized learning since they allow learners to act independently. Therefore, interactive video technology is a great tool for open and distance learning.

Findings from research question two revealed that the challenges hindering the provision of interactive video technology in open and distance learning Enugu State include high cost of purchasing interactive video technology gadgets, and high cost of training teachers and administrators to operate interactive video technologies. Recent research conducted in the field of open and distance learning (ODL) has identified a range of challenges that educators and institutions face in effectively integrating information and communication technology (ICT) into their programs. Sife (2018) have emphasized several key challenges, including issues related to awareness and attitudes towards ICT, inadequate funding for staff development and infrastructure improvement, a shortage of qualified personnel, and the absence of a systematic approach to ICT implementation within existing

infrastructures. Additionally, challenges related to the capacity of facilitators and instructors have emerged as significant concerns in recent studies. Inadequately trained facilitators have been identified as a barrier to the successful implementation of ICT in ODL programs (Martin, 2016). Chapman (2017) have pointed out that educators often lack both the technical skills required to effectively use technology in instruction and the andragogical skills necessary for adult education, even when they have internet access.

Furthermore, researchers have highlighted the issue of inappropriate internet content and its potential negative impact on local cultures and ideologies in ODL contexts. Concerns about the influence of Western content on local values and beliefs have been expressed as a factor that affects the adoption and integration of ICT in open and distance learning (Gonzalez et al., 2019). Again, lack of steady power supply for the smooth running of the programme, lack of technical know-how, inability to access the internet and other telecommunication facilities, lack of proper management, lack of orientation and proper guide on the use of instructional technologies affects the use of interactive video technology.

Conclusion

Open and distance learning is a well-designed programme packaged to fill the vacuum created by regular face to face education. Open and distance learning cannot achieve its objectives without media. Interactive video technology which is a form of media enhances a two-way communication between the learner and the tutor or the education service providers and the receivers. Based on the findings of the study, it was concluded that interactive video technology improve teaching and learning in distance learning in Enugu State; and that the challenges hindering the provision of interactive video technology in open and distance learning Enugu State include high cost of purchasing interactive video technology gadgets, and high cost of training teachers and administrators to operate interactive video technologies.

Recommendations

Based on the findings of the study, the following recommendations were made:

1. National Open University of Nigeria administrators should endeavour to increase the varieties of interactive video technologies used in the programme, they should introduce the use of Smartzter, Cinema8, GoEssential, Mindstamp Pageflow, TouchCast and projector. These interactive video technologies will help to enhance teaching and learning in NOUN.
2. National Open University of Nigeria curriculum planners should devise mechanism of assessing extent interactive video technology improves teaching and learning this will help to provide learners and instructors with a satisfactory degree of interactivity, boost learners' retention, and provide learners the opportunity to study at their own pace and convenience.
3. Government at all levels should make effort to handle the challenges hindering the provision of interactive video technology in open and distance learning. This is necessary because it will make teaching and learning enjoyable
4. Government and NOUN administrators should devise measures for improving the provision of interactive video technology in open and distance learning by providing adequate manpower services, qualified facilitators, and functional technical know-how.

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**IMPROVING QUALITY EDUCATION AMONG ADULT LEARNERS
FOR DECENT WORK AND SUSTAINABLE DEVELOPMENT:
IMPLICATIONS ON LIVING STANDARDS**

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Abstract

The Nigerian education system has been a controversial issue for discussion; this was occasioned for the fact that through education, different problems such as economical, political and social issues and many others besieging humanity in several aspects of their lives could be addressed. Even when education has failed to receive adequate attention from the powers that be, education still remains the only way out to promote sustainable economic development, political and social well being of the society. A critical observation revealed that increase in the number of schools in Nigeria will not guarantee or provide required education that will lead to desired sustainable economic development in this 21st century for self reliance, but through the consideration of education and its quality capable of providing knowledge and skills, techniques and information for wealth creation to move the country to the next level. This paper assessed the level of adult learning and education activities in Nigeria that will provide decent work for wealth creation and sustainable development for the teeming population of this country which will enable them contribute meaningfully in their society especially in this fast growing world.

Keywords: Education, Adult learning and Education, Work and Sustainable development.

Introduction

Education is seen as a veritable tool for bringing about socio-cultural, political and economic growth; an instrument used for developing human cognitive, affective, psychomotor and psycho-productive domains achievable through a teaching and learning process. All over the world, education can be assumed to be the most important instrument for change, viewed as a fundamental right of an individual aptly enshrined in several international frameworks. Education enables individuals to fit into the society based on their abilities, interest and needs. However, a right to education is an enabling right to build most national legislation as well as catalyst for positive societal change, development, social justice and peace. Education is achievable through formal or informal processes; education is regarded as a formal process when it takes place in an organized setting, also an informal process when it goes on in the home, work places and other areas in the society without specific instruction being given.

Education

Education is defined as a process through which societies deliberately transmit its accumulated knowledge, skills and values from generation to generation (Okechukwu, Nwaubani and Ogbonnaya, 2020). In addition, Okechukwu, Nwaubani and Ogbonnaya further stated that education is the total training of an individual leading to the development of mind and personality including self concept. The implication is that self concept determines self actualization. Gerur (2017) stated that education as a concept can be viewed from three dimensions, the process, product and discipline. The process of education deals with the transmission, preservation, development and advancement of the people's culture. The discipline aspect of education is seen as a body of knowledge such as what those things to be taught and learnt are and why it is worthy to be taught, what ways should it be taught including the category of people that will benefit from it? The most important benefits of education is that it improves personal lives and also help the society to be run smoothly, provide her citizen with knowledge, skills, techniques and information that will enable them know their rights and duties to their families, the society they belong and the nation in general.

In addition, Amaele in Ugwu, (2015) defined education as

the total development of the individual through an established acceptable methods and techniques based on the abilities and intents to make up the socio-economic and political needs of the society and equip the individual with opportunities to take the rightful place and become useful citizen and contribute meaningfully to the development of his society.

Amaele further stated that etymologically, the word education was derived from two Latin words “Educare” and “Educere”. Educare simply mean to train, form and mould individual to achieve his or her aspirations, Educere mean to build, to lead or to develop. It is mostly favored by humanist who argue that the function of education is to develop natural potentialities in an individual so that the individual concerned can function effectively in the society. In the work of Hanushek, (2007), it has been observed that it takes little analysis to understand that education levels differ dramatically between developing and developed countries and natural to believe that productive development strategy would be to raise the schooling levels of the population; this implies that education is the heart of national development and source of quality human capital that will move any nation to the next level, Nigeria for instance.

There is this observation that Nigerian educational system is seen to be abysmally low in terms of quality and a little of quantity. The observation was made and strengthened by UNICEF publications of 2018 which confirmed that there is poor performance in the Nigeria education system with regards to quantity and quality, thus resulting that more than 10.5 million children were discovered and recorded to be out-of-school children in 2008 as captured by (Fleet, Watkins and Gerubel in Adeniran et al, 2020). The authors further illustrated that most to be worried about was that this level of educational challenge seems to be one of the highest so far recorded globally, and that government has recorded about 58.3% as the statistical population of children without basic literacy and numeracy skills; which is never a credit to the countries education system. In order to achieve the ambitious target set for SDG, it demands that the level of education and its quality be improved. Ugwu, (2015) stated that in attempt to improve the need for education, the federal government after gaining her independence in the sixties attached serious importance to educational knowledge acquisition as priority and its quality a vital tool for national development. In his remark, Thom-Otuya and Inko-Tarah (2016) stated that available records show that government made tremendous efforts to improve plans for education acquisition through the introduction of different educational programmes to alleviate educational challenges in the country. Some of the programmes include Universal Primary Education (UPE), Free Primary Education (FPE) and Universal Basic Education (UBE) among others. Idris (2013) added that government fashioned out the national policy on Education as part of the Post-African Educational Reforms which aimed at making education an essential ingredients for nation building efforts for the newly independent African state for purposes of employment and wealth creation. These policies fashioned that every country owes it as a duty and obligation to make life more meaningful, cheap and comfortable for every member of her citizen.

Adult Learning and Education

In addition to making life good and sustainable for members of the citizens, government equally embarked on other developmental programme of activities which includes the political development, social-economic, religious, cultural, technological and educational development programme etc. for the interest of the people. More so, Onyenemezu, (2012) captured that providing opportunities for all members of the citizen to learn and acquire sustainable skills adults not excluded, will definitely increase the level of manpower and service the economy on the basis of rewarding adult population. These programmes and abilities were targeted to address the well-being of the citizenry and ensure increase in the achievement of education for all including the adult population by employing adult learning and education programme. Adult learning and education programme emerged as a result to the world economic crises in 2009 when representatives of 144 UNESCO member states met in Brazil for the sixth international conference in Adult education (CONFITEA, VI) and adopted the Belen Framework for Action (BFA) to guide them in harnessing the power and potentials of adult learning and education for viable future for all. The conference called upon UNESCO and satellite structures to review and update recommendation on the development of adult education as adopted by the UNESCO general assembly in 1976. The conference finally replaced this recommendation on adult learning and education embraced by UNESCO general assembly in 2015. The general assembly of 2015 came up with a broad definition of what adult learning and education encompasses. However, it was discovered that adult learning and education equip people with the necessary capabilities to realize their destinies, promotes personal and professional development by

supporting active engagement of adults within their societies, communities and environments. It fosters sustainable and inclusive economic growth and decent work prospects for individuals, a crucial tool for alleviating poverty, improving health and well-being and contributing to sustainable learning societies (Milana, Halford, Hedge, Waller and Webb, 2017)

Adult learning and education in Nigeria includes instrument for projecting the Nigerian population worldwide through information and communication technologies (ICT) and serve as a decisive tool for smooth integration of Nigerians economy into global economy. Onyenemezu, (2012) further stated that the use of internet has been beneficial in mobilizing people globally at the grassroots level to take a common stand on global issues of common concern. In his submission, Nzeneri (2010) added that our 21st century generation is characterized by an upsurge of information technology which dictates the place of development and technology transfer, and also a century where communication and infrastructural facilities such as telephone, fax and computer is tool for turning our world into global place. It is also a veritable platform through which the challenges of the 21st century such as bad governance, insecurity, and incivility and others can adequately be addressed. Adult learning and education is vital in reaching all the sustainable development goals and many of their targets. Akpotowoh and Amali, (2016) affirmed that participants in any adult learning programme need to be equipped with requisite entrepreneurial skill to have decent work in which they will be established and make them be part of their countries economic development, therefore from the knowledge, skills and opportunities acquired adult learners bridge challenging gap within their society's socio-economic environments.

Employers of labour attached to different levels and sectors of the economy are provided with qualified learned personnel predominantly adults who have the privilege and opportunities to increase educational acquisition in the society they belong. In addition, Onyenemezu (2012) cited a report from one time director general of UNESCO as indicated in Omolewa 1985 stated as follows:

it is not the children of today that hold the present destiny of Africa in their hands, instead it is the adults. So it is only by establishing effective communication with the adult population, and helping them to adjust to the rapidly changing world that an immediate impact be made on urgent problems of the society and essential progress to be brought.

More so, Ehazu cited in Onyenemezu, (2012) stated that adult populations are those occupying most of the production sector of our economy and not the children. Children are by their education meant for the future. Therefore, providing education for all including the adults will avail members of the citizen opportunities to be self reliant, have decent work and oblige those opportunities for wealth creation as to contribute meaningfully to the development of their society. Acquisition of education and its quality according to Weinberg, (2010) is an unavoidable component of any dignified work and the society of knowledge. As an instrument for productivity and competitiveness, education is a prerequisite for economic efficiency that generates quality employment and condition for access to permanent work. Education and quality not only can be described as an end to itself but equally for acquiring decent work for wealth creation especially for working adults. The statement is in line with 'Platos' philosophical words as captured by Patrinos, (2016) which says that "If a man neglects education, he walks lame to the end". More so the author stated that James Heckman, a neurologist affirmed that "learning can be continued into advanced age and that investment in more able worker at any age generates high return than investment in less able worker", investing in adult learner via adult education has payoff in terms of higher wages.

The above framework necessitated understanding of the term adult learner; which could be described as those adult participants willing to learn and they are exposed to adult learning programme. Akpotowoh and Amali, (2016) affirmed that participants in any adult learning programme need to be equipped with requisite entrepreneurial skill and educational knowledge to have decent work for employment and wealth creation. It is the most extended component of lifelong learning necessary for democratic and inclusive sustainable society, supports the development of values such as learning to live together, peace and tolerance and a critical tool for preventing extremism, cooperation and promoting active citizenship for decent work. The definition of adult learner was denoted to include those adults who are engaged in the acquisition of educational knowledge with the intention of having the ability to identify, understand, create, communicate and compute using printed and written materials associated with varying contents at the end of their programme. (Ferdinand, Williams and Orlu, 2019). In line with the above instance, adult learner can be understood as that adult individual who is desired to acquire quality education by applying consisted efforts and showing commitments to

their academic works with the hope of acquiring necessary qualification that will fetch them decent work for employment, thus contributing to the economy.

Work

Work is a fundamental aspect expected in the life of an individual. It is not only a form of substance and satisfaction for basic needs of human beings, it is also a vehicle for person to reassert their own dignity, occupy a productive place and feel useful to the society and the family (Somavia, 2001). The author stated that people do not just want a trade that will enable them to survive in constant anxiety, but they want decent work in adequate condition enabling them to enjoy a minimum of social protection. The society needs work that will guarantee their fundamental human rights, building on that respect a transparent social dialogue, work that will be instrumental for their permanent betterment, and place for developing their capabilities to enabling them compete in the labor market and to keep abreast with technological qualifications. However, it will be necessary for workers to be attuned with the technological evolution of their work so that they themselves are more creative and sufficient. Patrinos, (2016) stated that investment the society make in training and retraining and constant improvement of its labor force is a prediction for its capacity to life into a globalised economy. Acquisition of education and its quality will serve as a moral rectitude to the individuals and the society for the purpose of having good life, interest, social imperatives and rights of working person's dignity for sustainable development. Work is viewed as a productive work under condition of freedom, equity, security in which rights are protected for adequate remuneration with social coverage provided. Also it is the frame wherein both needs be met through vocational; this implies that training and development of workers skill and competences is a good dimension of good work for sustainability.

Sustainable development

Sustainable development is the ability to maximize the net benefit of economic development subject to maintain or enhance the service of natural resources overtime. In addition Erica, Ernesto and Andrea (2020) captured that while MDGs were primarily focused on developing countries, the sustainable development goals cover all the countries of the world, thus forming 2030 agenda. It represents a major advance as a cosmopolitan proposal for a global idea, an agenda of universal validity, not limited to the poorest countries. It is also a way by which the society is been managed in an efficient and effective manner so that it benefits everyone in the society with enough resources still available for the continuation of human race (Sofoluwe, 2013). According to Wikipedia (2011), sustainable development seeks to support people through empowerment participation of all stakeholders, social mobility, cultural identity and other different instructional development. The term sustainable development is a development which meets the needs of the present without compromising the ability of the future generations to meet their own needs (Sofoluwe, 2013). The author further stated that sustainable development maintain the planet by improving the state of ecosystem, biodiversity conservation, ensuring adequate carrying capacity and responding in sustainable manners to other global issues.

However, the United Nations (1987) used the concept sustainable development to meet the needs of the present without considering the ability of the future generation meeting up their needs, cultural needs, environmental protection needs and their social developmental needs among others. Sustainable development will only be useful when it leads to the welfare of the ordinary man, to give social protection, generate decent work that provide good living wage and workers rights in the best way to promote the three components of sustainable development which includes social cohesion, environmental sustainability and economic development (Erika, Ernesto, Andrea, 2020). Meanwhile, the level of education in Nigeria determines the level of her manpower and their productive capacity. Adult learning and education is vital in reaching all the sustainable development goals and its targets. Sustainable development goal especially goal '4' is the education goal with the target of ensuring inclusive and equitable quality education. It promotes lifelong learning for all. The goal has about ten targets of which the 1st target is to ensure free primary and secondary education for girls and boys towards completing their education that will lead to relevant and effective learning outcome. Even when the goal has about ten targets, but the target '4' aimed at ensuring increase in the number of youths and adults, have relevant skills including technical and vocational education.

According to Adeniran, et al, (2020) our cross-country and regional analysis shows that the national government have been making discernable progress in designing policy framework aligned with the sustainable development goal agenda, and as well as recognizing the importance of not leaving the vulnerable behind. It was further captured by the author that the world economic forum

WEF in 2018 ranked Nigeria as no 124th out of 137 countries in terms of education quality, records available implies that the country is coming up gradually to meet up the targeted sustainable development goals. However, the context of this paper is on education for employment and wealth creation for sustainable development, therefore emphases will be based on the acquisition of education by the adults for sustainable development. Since the concept of education has been described as an institution through which society provide her members with important knowledge including basic facts, job skills, cultural norms and values, education therefore remains the key enabler for sustainable growth and development across countries. According to Adeniran et al adduced that the 2030 agenda rightly recognize the ambitious goal of ensuring inclusive and equitable sustainable quality education to promote lifelong learning opportunities for all sustainable development goals, especially goal 4 which its objective move beyond the millennium development goals to focus on improving quantity through broadening access to education. It is against this backdrop that education and its quality be viewed as priority and most required in all facets of life to achieve sustainable economic development.

Summary

However, observation shows that education and training are essential elements needed for decent work and a condition to promote sustainable development in Nigeria, The situation of Nigeria educational system and quality is more worrisome as her policy is more focused on quantitative than qualitative education. Government is bent on increasing the number of higher institution in the country without considering their carrying capacity as to produce quality personnel to create good employment. Learners' and their learning condition with budget allocation to the existing institutions were not giving adequate attention. Equally the attention given to adult learning and education as an academic programme remains pathetic because educators or facilitators who train the adult learners are not recognized. As much as education has been described as the driven force and the key to human development, with the world becoming a global village, education will help to break down stereotype ideas and reduce prejudice, injustice, deprivation and oppression. Therefore, providing sustainable education to the adult learners through adult learning and education programme will restore sustenance, create employment opportunities, have decent work to promote economic growth of the country and meet up with the sustainable development goals.

Conclusion

Education goes beyond what takes place within the four walls of the school, grouped into three forms, the formal, informal and non-formal education. For instance, a child acquires education from his experiences outside the school as well as from those within the school system; adult learners can also acquire education by interacting with friends and colleagues in their workplaces. With observation, there are three mechanisms through which education may affect economic growth, they include that (a) education increases human capital inherent in the labor force, which increase productivity and thus transitional growth towards equilibrium level of output, (b) education may increase the innovative capacity of the economy and the new knowledge on new technologies and processes of promoting growth and (c) that education may facilitate the diffusion and transmission of knowledge needed to understand and process new information and to successfully implement new technologies devised by others which again promotes economic growth. Education is basis for national development, and a review of adult learning and education in Nigeria can provide a bridge and veritable platform through which the promises and challenges of the 21st century can adequately be addressed. Obviously, the standard and the quality of educational system and its capacity to innovate determines the place of growth and sustainable economic development, which is concerned with the increase in the standard of living of the people towards the provision of quality education, security, employment opportunities, health facilities and availability of food.

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**ENTREPRENEURIAL EDUCATION FOR ENHANCING
EMPLOYMENT OPPORTUNITIES AMONG OUT-OF-SCHOOL
YOUTHS IN IGBO-EZE SOUTH COMMUNITIES**

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Abstract

This study focused on entrepreneurial education for enhancing employment opportunities among out-of-school youths in Igbo-Eze South communities. The study was guided by two purposes and two research questions. A descriptive survey research design was used for the study. The population of the study comprised 3,511 registered members of the 28 registered youth organizations in Igbo-Eze South communities. A multi-stage sampling procedure was used to select 288 youths from fourteen youth organizations. The instrument for data collection was a questionnaire titled Entrepreneurial Education Needs of Out-of-School Youths for Employment Questionnaire (EENOYEQ). The instrument was validated by three experts. The reliability coefficient values were obtained using Cronbach's alpha statistical tool, resulting in an overall coefficient value of 0.80. Findings revealed that learning to read correctly, write legibly, speak fluently, and become self-reliant, among others, are the functional education needs of out-of-school youths in Igbo-Eze South communities, while hairdressing skills, fashion designing, automobile repairs, among others, were the skill acquisition needs of out-of-school youths in the study area. Based on the findings, some recommendations were made that the government should promote functional education in the Nigerian educational system, especially in rural communities. The government and NGOs should promote every activity that leads to skill acquisition, which will also make the youth employable.

Keywords: Entrepreneurial education, employment opportunities, Out-of-school, and Youth

Introduction

Entrepreneurship education is very essential for the creation of employment, especially for out-of-school youths. Leonard, Collins, and Felix (2014) described schooling as the improvement of the cognitive, affective, and psychomotor domains and skills of an individual for the best features and performance in society. Leonard, Collins, and Felix opined that the essence of schooling is for the most beneficial overall performance in society. Jaja (2013) added that training is a manner of acquiring expertise and different abilities. These capabilities may be obtained through entrepreneurship education. Entrepreneurship education is not just about obtaining ability, but also know-how and driving towards agency in skills that decorate private livelihoods through ensuring business startups, improving employment opportunities, and promoting economic improvement and increase. Emeh and Okechukwu (2012) affirmed that the fulfillment of entrepreneurship education relies upon an entrepreneurial capability to discover opportunities inside the surroundings, take initiatives towards an ideal alternate, and ensure a cost-primarily based answer within the marketplace location.

Entrepreneurship education is guided by using particular aims and targets to achieve effective training. Franke and Lüthje (2004) stated that the goals of entrepreneurship training include, amongst others, empowering human beings, diversifying the economy, creating employment, and enhancing men's or women's competence. In addition, Gundry, Ofstein, and Kickul (2014) stated that another significance of entrepreneurship education is that it gives training to individuals with the capacity to recognize industrial possibilities and the self-esteem, know-how, and talents to act on them. It ensures practice in opportunity recognition, commercializing an idea, handling assets, and starting up an enterprise venture. Entrepreneurship education is a veritable tool toward lowering unemployment.

Unemployment is still one of the toughest problems to clear up in the cutting-edge world, and the Nigerian economy is not exempted. The threat of unemployment has eaten deep into the Nigerian economic system because the young people, who are the major body of workers, are more often than not affected by unemployment. According to Kayode, Arome, and Silas (2014), the term "unemployment refers to a situation when a person who is actively searching for employment is unable to locate work. The maximum frequent degree of unemployment is the unemployment price, which is the range of unemployed human beings divided by the number of human beings in the labor force. Nwokeji and Ebirim (2021) are of the view that unemployment can also be alluded to as clear joblessness, a situation that occurs while individuals are without paintings and are effectively seeking out a commercial enterprise. On the other hand, Chappelow (2020) argues that unemployment occurs when a person who is actively attempting to find employment is not able to find employment. Information from the International Labour Organization (ILO) (2019) asserts that 201 million human beings globally are unemployed. With 8 million Nigerians technically unemployed (now not consisting of the ultimate 14.4 million underemployed, this indicates four percentage points of the sector's unemployed populace are Nigerians. The data from the International Labour Organization (ILO) in its 2019 report discovered that youths 18 to 30 make up nearly 1/2 (47 in keeping with cent) of the world's unemployed populace. According to Odia (2016), the unemployment rate in Nigeria was put at approximately 19.7% above the world average of 14.2% by the World Bank, with a 41.6% unemployment rate stated for children inside the 18 to 24 age bracket.

Youth comprises people between the ages of 18 and 35 who are citizens of the federal republic of Nigeria (Nigeria Youth Development Policy, 2015). Furthermore, it's a period of transition from the dependence of early life to adulthood independence and the focus on interdependence as contributors to a community. The United Nations (2015) stated that age is the easiest way to understand who a teenager is, in particular on the subject of training and employment, beginning with their premises. Youths are between the ages at which they may go away for obligatory training and the age at which they locate their first employment. Out-of-youths are youths who dropped out of both primary and secondary school and, for this reason, have not completed their basic training program. Therefore, the entrepreneurship education desires of out-of-youths, in line with Paul (2005), consist of creativity and innovation and training on hazards control and risk management, among others.

Training on hazard control is one of the entrepreneurial wishes of out-of-school youths. The Cooperate Finance Institute (CFI) (2021) stated that hazard control encompasses the identity, evaluation, and reaction to hazard elements that form part of the life of an enterprise. By performing proactively in preference to reactively, powerful danger control pursuits can influence destiny's activities as much as possible. Tucci (2020) said that, risk management is the method of figuring out, assessing, and controlling threats to a business enterprise's capital and income. These dangers stem from a variety of resources, including financial uncertainties, prison liabilities, generation problems, strategic control mistakes, injuries, and natural screw-ups. Out-of-school youths need nice schooling on risk management. This is due to the fact that it will equip them with the ability to manipulate their corporations and trades without incurring a lot of loss. Therefore, precise hazard management has the potential to lessen both the probability of a risk and its viable outcomes.

In Igbo-Eze South communities, authorities have hooked up agriculture and agribusinesses through entrepreneurship education, which are crucial sectors for addressing starvation and poverty. By offering know-how and talents in agricultural practices, fee chain improvement, market-place access, and enterprise control, entrepreneurship training allows unemployed youths to interact in agricultural entrepreneurship. This can result in multiplied agricultural productivity, advanced food production and distribution, and stronger livelihoods for the youths, young marketers, and nearby communities. Through entrepreneurship schooling with the help of NGOs in Igbo-Eze South communities, youths can become self-employed or employ others, contributing to the task creation and financial boom of their communities. By starting a successful organization, they have the capacity to raise themselves out of poverty and improve their standard of living.

Despite most of these attempts by the government and NGOs, there is nevertheless an excessive rate of unemployment among a number of the youths in Igbo-Eze South Local Government, and specifically among dropouts. The occurrence of unemployment can be the purpose of the social vices, together with theft, prostitution, enhanced rate fraud (419 or Yahoo), and robbery, among others. Most of the out-of-school unemployed youths are not employable because they lack the specified skills and consequently, the desire for entrepreneurship education. The researchers deemed it fit to assess the effectiveness of entrepreneurial education in enhancing employment opportunities among out-of-school youths in Igbo-Eze South communities.

Purpose of the Study

The general purpose of the study was to assess the entrepreneurial education for enhancing employment opportunities among out of school youth in Igbo-Eze South communities. Specifically, the study sought to:

- Find out the creativity and innovation need of out of school youths for employment in Igbo-Eze South communities.
- Identify the risk management needs of out of school youths for employment in Igbo-Eze South communities.

Research Questions

The study was guided by the following research questions:

- What are the creativity and innovation needs of out-of-school youths for employment in Igbo-Eze South communities?
- What are the risk management needs of out-of-school youths for employment in Igbo-Eze South communities?

Methodology

This study adopted descriptive survey design. Descriptive survey aims at collecting data on and describing in a systematic manner the characteristics, features, or facts of a given population. These studies are only interested in describing certain variables in relation to the population (Nworgu, 2015). It is appropriate for this research because it is set to determine whether entrepreneurial education enhances employment opportunities among out-of-school youths in Igbo-Eze South communities. The study was conducted in entrepreneurial education to enhance employment opportunities among out-of-school youths in Igbo-Eze South communities. The population of the study comprises 3,511 registered members of the 28 youth organizations in entrepreneurial education for enhancing employment opportunities among out-of-school youths in Igbo-Eze South communities. The sample size adopted for the study was 288 youths, and the sampling technique was multi-stage. A questionnaire titled Entrepreneurship Education Needs of Out-of-School Youths for Employment Questionnaire (EENOYEQ) was used to collect relevant data for the study. The instrument for data collection was face-validated by three experts, two from the Departments of Adult Education and Extra-Mural Studies and one from the Measurement and Evaluation Unit of Science Education all from the Faculty of Education, University of Nigeria, Nsukka, to ascertain the relevance of the instrument and its appropriateness to the study. After a thorough assessment, they recommended that some items be changed and some be reconstructed. Their recommendations were used to draft the final copy of the questionnaire for the study. To ensure the reliability of the instrument, a trial test was carried out by giving out 20 copies of the questionnaire to 20 youths from Obollo-Afor community that share the same characteristics and experience in terms of cultural background. A reliability coefficient of 0.87 and 0.77 was obtained using the Cronbach's alpha statistical tool; while the overall reliability value of 0.80 shows that the instrument was reliable. The data was analyzed using weighted mean.

Results

Research Question One: What are the creativity and innovation needs of out-of school youths in Igbo-Eze South communities?

Table 1: Creativity and innovation needs of out-of-school youths in Igbo-Eze SouthCommunities

S/N	Item Statement	SA	A	D	SD	No of Resp	Total Score	Mean	Decision
1	Acquire the ability to solve complex problems	112	76	39	61	288	815	2.8	Agreed
2	Learn how to be productive in business	79	36	114	59	288	711	2.5	Agreed
3	Learn how to bring uniqueness and novelty to business process	81	112	59	36	288	814	2.8	Agreed
4	Acquire the ability to take advantage of opportunities	75	40	110	63	288	703	2.5	Agreed
5	Learn how to reduce business cost and increase income generation	74	111	64	39	288	796	2.7	Agreed
Grand Mean								2.6	Agreed

Table 1 reveals the creativity and innovation needs of out-of-school youths in Igbo-Eze South communities. The individual items show that the ability to solve complex problems has a mean of 2.8, learn how to bring uniqueness and novelty to business process 2.8, learn how to reduce business cost and increase income generation 2.7, learn how to be productive in business 2.5, and acquire the ability to take advantage of opportunities 2.5. Therefore, the grand mean of 2.6 shows that all the items in the list were accepted as the creativity and innovation needs of out of school youths in Igbo-Eze South communities.

Research Question Two: What are the risk management needs of out-of-school youths in Igbo-Eze South communities?

Table 2: Risk management needs of out-of-school youths in Igbo-Eze South communities

S/N	Item Statement	SA	A	D	SD	No of Resp	Total Score	Mean	Decision
1	Acquire risk management skill								
2	Learn how to implement risk management plans	108	82	86	11	288	861	2.9	Agreed
3	Learn how to handle potential risk in business	102	88	85	12	288	854	2.9	Agreed
4	To be trained on how to develop structures to address potential threats to business	79	115	59	35	288	814	2.8	Agreed
5	To be trained on how to improve the odds of becoming successful in business	74	65	110	39	288	750	2.6	Agreed
6	Learn how to take good decision in business	109	81	81	16	288	938	3.2	Agreed
7	Learn how to control unexpected events	77	38	113	60	288	708	2.5	Agreed
		157	33	81	17	288	906	3.1	Agreed
	Grand Mean							2.8	Agreed

Table 2 reveals the risk management needs of out of school youths in Igbo-Eze South communities. The items mean indicates that: To be trained on how to improve the odds of becoming successful in business has a mean of 3.2, learn how to control unexpected events has a mean of 3.1, acquire risk management skill 2.9, learn how to implement risk management plans 2.9, learn how to handle potential risk in business 2.8, to be trained on how to develop structures to address potential threats to business 2.6, learn how to take good decision in business 2.6, learn how to take good decision in business 2.5. Therefore the grand mean of 2.8 shows that all the items in the list were accepted as the risk management needs of out of school youths in Igbo-Eze South communities.

Discussion

From the findings in table 1; to acquire the ability to solve complex problems, being productive in business, bringing uniqueness and novelty to business process, acquiring the ability to take advantage of opportunities, reduce business cost and increase income generation were accepted as the creativity and innovation needs of out-of-school youths in igbo-eze south communities. Anyanwu (2021) stated that young people in nigeria are the innovators, the creators and the entrepreneurs of today and tomorrow. anyanwu continued by saying that, nigerian youths, along with others in africa and around the world are innovative, using their energy, ingenuity, curiosity and creativity to create a better future. Through creativity and ingenuity, young people in all regions across nigeria are driving change and carving pathways to a better future. The finding is also in line with adebambo (2021), who stated that one of the greatest national endowments is the enormous human resources that abound everywhere and in every field of human enterprise, we are referring to knowledge, the fabric of creativity and innovation. That indeed, as we know, is the currency that drives the marketplace of ideas and global economy of today, in which the development status of every nation is measured.

Findings, from table 2 shows that acquiring risk management skills, learning how to implement risk management plans, handling potential risk in business, and training on how to develop structures to address potential threats to business were accepted as the risk management needs of out-

of-school youths in igbo-eze south communities, as each of their mean is above the benchmark of 2.5. This finding corroborates with maiti (2021) who found that out-of-school youths need training on risk management because it makes jobs safer, enables project success, reduces unexpected events, saves time and effort, benefits culture, and guides decision-making. It also lends credence to Singh (2021) identified that the needs for risk management as follows: implementation of a robust risk management plan will help an organization build policies and procedures around avoiding potential threats and measures to minimize their impact if they occur; it is crucial for any business to know the nature and extent of the risk it is prepared to take and the level of risk it can tolerate and communicate the same to its employees at all levels of management. This enables limited control throughout the organization. The ability to understand risks enables the organization to make confident business decisions. It protects the organization from the risk of unexpected events that can cause it financial and reputational loss; planning and developing structures to address potential threats improves the odds of becoming a successful organization. The corporate finance institute (cfi) (2021) stated that risk management encompasses the identification, analysis, and response to risk factors that form part of the life of a business. They also added that effective risk management means attempting to control, as much as possible, future outcomes by acting proactively rather than reactively. Effective risk management offers the potential to reduce both the possibility of a risk occurring and its potential impact. Continuing, cfi stated that risk management structures are tailored to do more than just point out existing risks. A good risk management structure should also calculate uncertainties and predict their influence on a business. The practice of risk management involves identifying, looking into, and responding to potential risks in company operations or manufacturing processes. If appropriate risk management strategies were used to manage future occurrences by making proactive efforts to lower the likelihood of a risk occurrence, business activities may operate at their peak efficiency (ahmodu-tijani & adnan, 2020).

Conclusion

Summarily, it was concluded that the ability to solve complex problems, be productive in business, bring uniqueness and novelty to business processes, acquire the ability to take advantage of opportunities, reduce business costs, and increase income generation are the creativity and innovation needs of out-of-school youths in igbo-eze south communities. While acquiring risk management skills, learning how to implement risk management plans, handling potential risk in business, and training on how to develop structures to address potential threats to business are the risk management needs of out-of-school youths in igbo-eze south communities.

Recommendations

Based on the findings of the study, the following recommendations have been made:

- The government and non-governmental organizations should promote every activity that leads to innovative thinking and creativity. This will make the youths, especially out-of-school youths to acquire the ability to solve complex problems; and learn how to be productive in business.
- The government through the ministry of education should promote entrepreneurship education which will focus on risk management needs of out-of-school youths. This will help the youths to acquire risk management skills, learn how to implement risk management plans, learn how to handle potential risk in business, and be trained on how to develop structures to address potential threats to business.

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LEADERSHIP IN UPPER BASIC EDUCATION FOR SUSTAINABLE DEVELOPMENT

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Abstract

Educational leadership is the fundamental crux of the sustainable development of Basic education. The paper expounded the meaning and objectives of upper basic education. It explained the meaning of leadership indicating the various levels of leadership in upper basic school organigram and their duties for effective administration, teaching and learning. The paper expressed that the upper basic school is a spring board to sustainable development since it is the juvenile experience of life-long learning and students have powerful retentive memory at this stage. The importance of leadership in upper basic education were pointed out such as frequent supervision and discharge of duties by various units. Its challenges like poor policy implementation were x-rayed for prevention. Recommendations such as improving educational facilities and use of mother tongue were made.

Keywords: Leadership, Basic education and sustainable development.

Introduction

Leadership is the ability to influence and convince a group or organization to accept and carry out pre-determined decisions to attain desired goals. Leadership is also encouraging a group to face challenges and achieve either success or failure in a given situation (Mbakwem, 2020). Life-long learning experience is the basic ingredient in the intuition for the establishment of basic education. To curb illiteracy in Nigeria basic education was introduced for the acquisition both theoretical and formal education for pre-primary, primary, junior secondary, adult and nomadic education. It is designed upon reading, writing and vocational skills to reduce irregularities in social and economic lives of Nigerians. Education is therefore a quality instrument for the development of humans, socio-economic and cultural transformation of a nation. The Universal Basic Education (UBE) was launched in Nigeria by the then President of Nigeria, Olusegun Obasanjo in September 1999 in Sokoto. It was a reformation from Universal Primary Education (UPE) which he launched in 1976. The Universal Basic Education Commission (UBEC) was established by the Nigerian Federal Agency for compulsory, free universal basic education and other related act of 2004 with the mandate to formulate policy guidelines for the successful operation of UBE programme, Bashir & Issah (2019). The Universal Basic Education which is a nine year programme endorsed by the Federal Republic of Nigeria in its National Policy on Education (FRN), (2004) is divided into three segments. These are:

- a. 3 years of lower basic education (Primary 1 – 3).
- b. 3 years of middle basic education (Primary 4 – 6).
- c. 3 years of upper basic education (Junior Secondary)

(Upper basic education is the third segment) Akpan, Igwe & Odey, 2020).

The objectives of the upper basic education include:

- a. To provide the child with knowledge and skills for entrepreneurship education.
- b. Development of patriotic young people to contribute to social development and performance of their civic responsibilities.
- c. Inculcate values and raise morally upright individuals capable of independent thinking who appreciates dignity of labour and

d. Inspire national consciousness, harmonies, co-existence, irrespective of differences in endowment, religion, colour, ethnic and socio-economic background (FRN, 2013).

Owing to depressed economy of Nigeria ranging from poor economic policies, low productivity, insecurity, inflation, collapse of manufacturing companies, embezzlement of public fund, unemployment, hunger and poor health conditions to mention but a few, great thinkers of Nigeria saw the pressing need to establish functional education from grass root level (Obi, Nnanna & Ekeada, 2018).

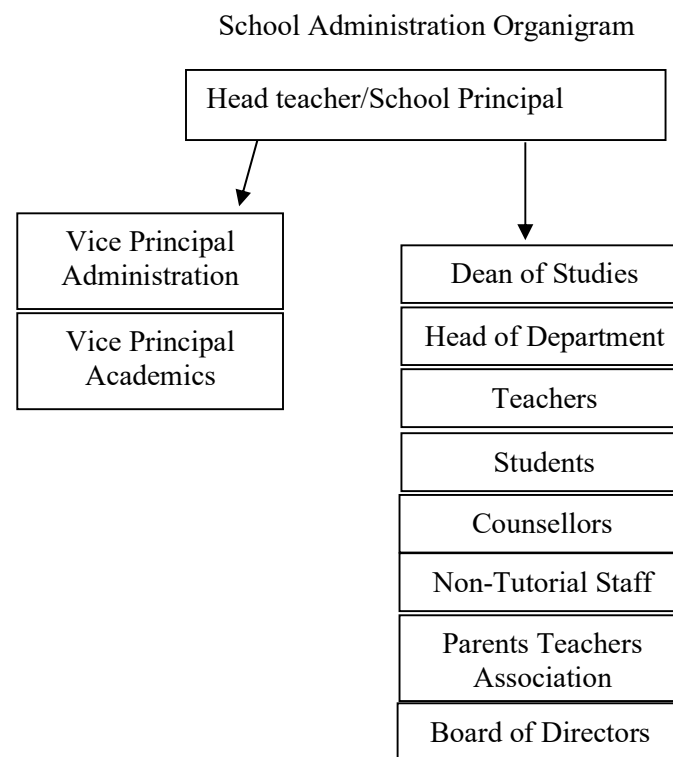
Therefore sustainable development is education for better life especially through entrepreneurship activities and collective ventures to improve the standard of a nation in comparison to global standard. Onyenze, Ugwulebo, Onwuliri & Duruji (2022) reiterated that sustainable development takes care of human and material needs of a nation, presently and in consideration of the future needs with equilibrium. It considers the improvement of human conditions and environment in terms of peace, prosperity, good health, equity, security, self employment, agricultural increase, employment opportunities and job satisfaction. Hence, the need to have good leaders to develop upper basic education where students can concretize knowledge, use it to develop skills early enough, value citizenship education, ethics and morals.

Leadership organs in the upper basic schools

Leadership is the ability of an individual to influence, motivate and encourage other members to contribute to realizing the effectiveness and success of an organization. Transformational leadership motivates members to do more than they are really expected to do by increasing the sense of importance of the value of task, stimulating their interest to work as a team and passionately directing their energy to rise to higher level of productivity (Evans, 2020). Transformational leadership is a new leadership agenda based on enabling people work skillfully and collaboratively within and outside the company or organization. This generous commitment by members attract fulfillment of moral obligations by leaders to subordinate. (Mbakwem, 2020). In essence, good leadership is needed to pilot the course of upper basic education.

Educational leadership aims at achieving educational goals by facilitating enabling environment, implementing policies through effective use of human and material resources. At this basic level the position of principal/head teachers and sectional heads are crucial to the systematic success of educational programme (Asamonye, 2017).

The illustration below shows the leadership organigram in upper basic school.



Source: Onyemerekeya & Asamonye (2009)

School organizations includes the principal – The Chief Executive/Administrator, the Vice Principal Administration and Vice Principal Academics. Others are the Dean of Studies, Head of Departments, School Counselor, Students, Teachers, Librarian, Bursar, Sectional Heads, Medical Units, Security Outfit, House Master/Mistress, Labour Master/Mistress, Furniture Master/Mistress, Clubs/Pious Associations, Parent Teachers Association and Board of Directors (Anorue, 2021).

Roles of each leadership level towards sustainable development

The Principal is chief administrator of a school. He ensures that security of the school is enhanced; healthy environment, facilities and equipment are maintained for student, teachers and non-tutorial. The principal is in-charge of some statutory records such as Log Book, Visitors book and punishment book. He is accountable to the Commissioner of Education forevents in the school and ensures that schools monies and budgets are genuine (Egwu, 2014).

Vice Principal Administration assists the principal in her duties. She supervises instruction, compiles statistical returns of students and staff to the Ministry of Education. She supervises the works of sectional heads, maintains discipline and issues certificates to students.

Vice Principal Academics allocates subjects and classes to teachers as approved by the principal. He ensures that lessons are taught, inspects diaries of teachers, register new students and ensure high academic standard of students.

Dean of Students among others is in-charge of school tests and examinations. He produces the school time tables, recommends textbooks to principal, signs teachers' lesson notes and supervises instruction. He brings updates about curriculum development and implementation.

School Counselors give academic and moral orientation to students to improve their standard. They invite student to curb indiscipline, keep records of continuous assessment and external examinations like WASC and NECO. They direct students on career choice and keep confidential records of students' behaviours to be retrieved when needed by school heads or parents.

Sectional Heads ensure that teachers attend classes, supervises examination and produces results at a record time. They monitor extension classes.

Heads of Department ensure that government approved curriculum and textbook are used for teaching and learning. A country's curriculum has a lot to say about the effectiveness and educational attainment of the country. Implementation of functional curriculum of the upper basic schools needs to be monitored strictly for sustainable development (Ekwuru, 2021).

Form teachers are direct custodians of students in the school and mark the attendance register to ascertain students who are regular and punctual to school. Their works are enormous including classroom management, teaching and learning through healthy interaction, current teaching methods. The form teacher maintains good relationship with parents and guardians so as to give reports about the wards, ensures that the classroom is neat, supervises students' examinations and produces results. She reports cases of sick and mal-adjusted students to principal. They are "loco parentis" (Imo State Basic Education Board, 2021).

The use of library especially virtual library is important for development of upper basic schools. The Librarian ensures that the provided books and ICT components are well preserved and tagged. He also directs students to have access to their needs.

Medical Unitserves for emergency cases in schools. A school ought to have a nurse to give first aid treatment to students in case of emergency before consulting parents and guardians.

Security Unit is essential in all schools because of hostile environment in some areas in Nigeria. Sometimes cows or dangerous animals enter school environment while students are in session. The issue of unknown gunmen is a big challenge to security because they could kill anyone at anytime or even kidnap students.

Parents Teachers Association: No school exists without this body because the parents are the real owners of students and make serious sacrifices for the development of their wards and upkeep of school environment. The teachers collaborate with them in these functions as guardians of the students (Onyemerekeya&Asamonye, 2009).

Hostel masters or mistresses where applicable supervise students' hostels, kitchen and dining halls to ensure that boarders are well taken care of. They report students need to principal such as food supply, beds and plates. Surroundings are kept healthy for students and cases of indiscipline are reported to principal.

Labour masters/mistresses ensure general sanitation of schools. Periodically, students should be involved in cleaning their surroundings and incinerator. They should be involved in agriculture by teaching them how to handle hoes, machetes, rakes, mowing machines and so on.

Furniture masters and mistresses are responsible for classroom and staff furniture. These are supplied by government. They are to be handled with care and repaired as need arises. Furniture for students is fixed to suit the 21st century teaching and learning methods and programmes (Ihebereme, Abiahu, Ahamefula, & Osuagwu, 2022).

Game masters/mistresses ensure that all students participate actively in games and sports as approved by the school time table. Handball, soccer, basketball, table tennis should be encouraged for recreation and healthy practices. Students get scholarship through sports and raise the school tone too. Students need to be supplied with games equipment.

Patrons of clubs and pious association are to ensure that establishment of approved clubs and pious association could drive away cultism in schools and encourage peaceful co-existence. Debating societies, child right club, dramatic societies and prayer groups help to conscientize the students and improve their academic standards.

The functions of these sub-educational leaders listed above might look cumbersome. They are basically for all round development of students and most Mission and Private schools are consistent in matching their duties to their salaries to ensure beneficial and quality education for their students. Nigeria has recently produced policies and curriculum to be used to improve education standard but implementation by government and school staff have not motivated the students into action (Asamonye, 2017).

Importance of leadership in school administration.

School leadership aims at influencing people through motivation, persuasion, sacrifices and conviction to create conducive environment to achieve optimum teaching and learning. The school administrator needs to plan, organize, direct and evaluate certain variables to attain functional education goals. Okorie (2005) enlists such variables as, personal, faculties, finance, curriculum, students and advisory groups.

1. Personnel

The school leader ought to be a professional teacher who knows what is expected of him and be responsible for what happens in his school. He should insist on having qualified teachers, knowing their sex, number, years of experience and area of specialization to ensure that effective teaching and learning goes on in the class. He should also know the number and sex of students including student-teacher ratio. Responsibilities are to be shared for effective participation and supervision as shown in this organigram. The non-tutorial staff and members of Parents-Teachers Association have to be involved in school decision making for effective leadership. The Head teacher/Principal is Chief Executive of any school.

2. Facilities

The school leader has to ensure that educational facilities such as classroom, laboratories, offices, school fields, staff room, fields, rest room are available for running of the school. These influence academic performance of students (Dorgu, 2012).

3. Curriculum

The ministry of education provides curriculum and the school leader ensures curriculum implementation for proper academic achievement. Supervision of classroom work and diaries are to be done by the leader and others whom she appoints e.g. vice principal academics, Deans, and heads of departments. Results of students should be made available to parents periodically.

4. Finance

Schools cannot function without finance. School leaders ought to make school budgets on time and submit to Local or State Government respectively in order to receive money. It should also create funds through activities such as, crafts, home economics, sports, philanthropists and parent-teachers association. Such moves are used for school management and maintenance of facilities.

5. Students

Students are the main reasons why schools are established. Success of head teacher or principal depends on how effectively he manages the students through exposing them to proper

teaching and learning, discipline, healthy relationship among peers, neatness etc. There should be rare use of punishments, instead correction is necessary.

6. Advisory groups

These help the school leader mainly in decision making, raising fund and forming of committees e.g. the board of directors and P.T.A.

7. Technological advancement

A school leader has to be innovative and follow the new trends in teaching methods and use of ICT components. Without these, the students will be backward in examinations and out of the global market.

8. Mentoring

Mentoring from experienced teacher is a great tool for making teaching experience a lifelong career (Bob, 2016). School leaders have to re-train teachers and staff occasionally to develop new practices for teaching and learning.

9. Use of data

The school leader has to ensure that school records such as registers, examination records, staff records, log book etc. are kept up to date for internal and external consultation.

10. Motivation of teachers

Teachers are great workers in the education system. They need encouragement and support as “Loco Parentis” by way of intrinsic and extrinsic rewards.

11. Supervision of instructions

The failure or success of school system depends on school head. Human beings need to be reminded or checked to ensure that he does his work. Students also need to be supervised to ensure that they pay attention in class and not loiter in school.

12. Schedule of duties

School leaders must not do the work alone as already stated. He shares duties with school organigram to ensure that all hands are on deck. He also prepares school time table for effective teaching and learning.

Challenges facing leadership in schools

These include:

1. Bad governance and non-implementation of policies.

The funding of education in Nigeria is poor especially in provision of facilities and payment of teachers’ salaries, talk less of gratuity. Only government schools are sponsored, therefore the quality of private or mission schools are neglected by government that does not give them subvention. In all schools, Nigerian children are involved and government ought to be involved.

2. Teacher qualification.

The country does not have enough science and technology teachers. Many technological equipment that were assigned to schools wasted because of lack of teachers. Junior secondary education is full of practical experiences using the 21st century teaching methods such as collaboration, demonstration, critical thinking etc. Vocational and skill training are essential for economic and social sustainability. (Ademola, Asamonye&Iyiegbuniwe, 2020).

3. Non-Information technology compliance

ICT which hub is computer, the bedrock of globalization in socio-economic, political, health and other development is not yet taken seriously at the upper basic level where pupils could learn fast. Provided laptops waste away due to lack of fuel or maintenance of ICT facilities. E-learning, e-governance, e-counseling, e-banking and transactions and all areas of science and technology ought to be promoted in upper basic schools. (Imo State Universal Basic Education Board, 2021). Teachers like bankers could be divided into batches to learn computer for effective and efficient delivery of lessons.

4. Use of mother tongue.

The use of mother tongue in teaching and learning has been recommended by in (FRN, 2013) for retentive memory and practical applications. The same government made English language compulsory for tertiary admissions, causing conflict in knowledge internalization.

Remarkably, Germans, English, Italians etc do not make Igbo, Hausa or Yoruba language compulsory for their students' admissions. Rather, one must learn their language if admitted in such countries to be successful. Nigerian languages ought to be promoted with motivation in admission of students in any University of Paris choice to do any course.

5. *Poor supervision*

Government officials need to continue their monitoring and supervision services to raise the standard of this important level of education. For instance, agriculture is very essential and gainful in any economy especially for food production. The Northners and Middle Belt of Nigeria ought to be really appreciated for food production and crafts(Dorgu, 2012).

6. *Grant of Loan*

Some students that have completed their lower basic education could be school dropouts and might like to do such works as mechanic, bakery, electrical works, seamstress etc. some teachers also need loans for their private practical experiences. These could be supported with soft loans by government to develop their talents and be self-employed.

7. *Functional curriculum*

Government ought to digest former policies before making new ones. There are many practical programme in basic education in both National Policies of Education of 2004 and 2013 of the Federal Republic of Nigeria. Duplication of policies is not necessary rather implementation of the functional curriculum is essential.

Conclusion

Leadership in upper basic education is essential for sustainable development because at this level of education students are tender and copy right in assimilation of facts, skills and character formation. Various units in school administration should join efforts to raise the standard of development at this level for economic, social and cultural positive growth. Government, parents and philanthropists have to do the needful by funding education and lessen such challenges such as non provision of ICT components and employment of qualified teachers for implementation of functional curriculum.

The Way Forward

1. Principal/head teachers as general overseers of school system should ensure that all organs of the school administration put maximum efforts to raise the standard of education in lower basic education.
2. Government should not relent in funding education despite the huge population and diverse education systems because education is the easiest way to train and settle human beings.
3. Only qualified teachers should be employed and more teachers should be trained in areas of science and technology. Conference and workshops for teacher especially in ICT is of great value.
4. Students should be given access to computer practices on completion of JSS 3 and some of the school leavers could be given loan.
5. Use of mother tongue is essential for easy transfer of knowledge and application. Nigerians should be proud of their languages and help the younger generation to benefit from its value.
6. Supervisors should continue to work in schools because recommendations from supervisors are essential to raise the quality of education in Nigeria.
7. Government should be slow in replicating education policies. They should rather employ 21st teaching strategies and methods using functional curriculum.
8. Students should be encouraged to enroll in sports, moral instruction, clubs and pious associations. These are very essential for behaviour modification of students. They can also help to eliminate cultism in schools.

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**ADULT FUNCTIONAL LITERACY: EDUCATIONAL IMPLICATION
FOR WOMEN EMPOWERMENT AND WEALTH CREATION IN
ENUGU STATE, NIGERIA**

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Abstract

Recent years have seen an increase in awareness of the value of empowering women via reading. Despite the crucial role that women play in the family and society, women in developing countries continue to face a number of problems related to gender inequality. The study explains how literacy instruction has helped women in Enugu State, Nigeria, to overcome oppression like assault, widowhood, and gender discrimination. The study was a descriptive survey. Three research questions and two hypotheses served as the study's guiding principles. The study used a cohort of 2671 adult female learners with a sample size of 348. Surveys were used to collect the data, which was then analyzed using the mean and t-test. The study discovered, among other things, that literacy teaching aided women in raising their awareness of delicate subjects including domestic violence against women, women's rights, and female engagement in civic life. The study found that literacy programmes gave women's groups the livelihood skills they needed to raise their families' standards of living, foster independence, and gain access to markets. The paper recommends, among other things, that the government and other partners should promote and support adult literacy programmes.

Keywords: Education, women, empowerment, adult literacy and wealth creations.

Introduction

The family unit is dominated by women (Dixon-Mueller, 1993). They support all facets of family life, including establishing a family, providing for the family's financial needs, raising children, and caring for the family. In addition to ensuring the stability of the family unit, they provide those in need with medical care, are crucial for obtaining food, and serve as the foundation for all socioeconomic activity (Mutangadura, n.d). Women's significant contributions to societal advancement as well as to the stability, growth, and long-term prosperity of countries, have long been acknowledged (Usman, 2020).

However, the pattern of women's poverty in Nigeria has often been a consequence of unequal institutional gender-role ascription; resulting to gender inequality, discrimination against women, lack of access to property and work education and government services, and these inhibitions have adverse impact on their lives (Tayo, 2013:6). Intimate partners are often the perpetrators of abuse against one in three women worldwide (Bronfenbrenner, 1986). Infringing on their human rights, violence against women and girls can have deadly short- and long-term bodily, sexual, and mental effects (United Nations, 2020). Myths from African culture have an effect on widows' marginalization.

Women from low-income households, those with limited education or no education at all, and those who live in rural areas are disproportionately those who suffer from gender discrimination, violence, and dehumanizing widowhood rites. Most individuals in this category are illiterate, particularly those who reside in rural areas; as a result, they are unable to exercise their legal rights and lack the confidence, self-assurance, and resources necessary to stop any violation of those rights (Tayo, 2013).

It is true that those with low levels of education are more likely to have unsatisfying lives overall, poorer financial situations, and fewer favourable work chances (Duru, 2018). Women frequently deal with the effects of this, such as increased crime rates, welfare dependency, low self-esteem, economic, psychological, and social oppression. Because they struggle to complete basic tasks like filling out applications and forms, understanding governmental regulations, understanding food or medicine labels, and other routine tasks, individuals with low literacy rates are also less able to make important, informed decisions in their daily lives (World Literacy Foundation, 2018).

Literacy has been defined in a number of ways by various scholars and practitioners in education and development fields. Reading, writing and mathematical ability are the three components of literacy as they have traditionally been understood (Srivastava, 2017). Literacy is a powerful tool, a wide range of skills, and a competence; it is more than just the capacity to read and write. Reading comprehension covers both culture and language. It is an essential aspect of the right to education (United Nations, 2010). Numerous industries, including those related to education, health, agriculture, and other sectors, depend on literacy. Literacy components empower women to live above obnoxious cultural practices such as female genital mutilation, widowhood, early marriages and exchange for debts (Acha, 2016). To attain their objectives, advance their expertise and potential, and be prepared to fully participate in their community and greater society, people must move through a continuum of learning that includes literacy (UNESCO, 2005).

Recent years have seen an increase in awareness of the value of empowering women via reading. In 2017, the UNESCO Institute for Lifelong Learning (UIL) published a list of literacy programmes that have positive effects on women's emancipation. There are case studies that demonstrate how literacy programmes in many parts of the world have created solutions to the problems that women face in the modern period. These studies not only demonstrated the importance of literacy programmes in empowering women, but they also highlighted the fact that literacy programmes go beyond merely providing opportunity for people to acquire the necessary reading and writing abilities. Education for girls, equity, violence, health, community involvement, and governance are all related to literacy programmes (UNESCO, 2017).

The majority of the women's literacy programmes presented utilized a systems approach, connecting literacy acquisition with earnings pursuits in manners that are highly applicable to the people's requirements and potentials of women. For example, Ethiopia's Integrated Women's Empowerment Linked with various literacy instructions with informal vocational training, business training, and assistance to assist adult women in rural areas improve their standard of living (UNESCO, 2017).

Other literacy programmes target women's learning by emphasizing their position as young mothers. An example of this is the Turkish Family Literacy Programme, particularly one of its core programmes, Mother-Child Education. It is a home-based, interdisciplinary programme for early childhood education (ECE) and adult education/literacy that serves socially disadvantaged children and their mothers, many of whom struggle with literacy (UNESCO, 2017). The Nigerian Mother and Child Education Programme (UNESCO/ECE, 2020) for instance, focuses on a range of issues, including adult literacy, early childhood education, health, civic education, environmental management and conservation, generating income, and promoting employment in rural regions. Additionally, an interconnected and cross-generational strategy is used in several case studies. Associação Progresso's blended literacy-gender delivers literacy training in native languages with an emphasis on raising consciousness of and advocating against domestic violence and human rights in remote communities in Mozambique (UNESCO, 2017). In addition, the programme runs with women and men who are already enrolled in literacy programmes in 20 locations. Local authorities include village chiefs, care staff, organizers of male and female initiation rites, and religious leaders.

Several studies have reported that, illiteracy is one of the major reasons why women in many parts of Nigeria still suffer from one form of gender discrimination, violence, and deprivation to the other. The study set out to examine literacy as a weapon for economic empowerment in communities in Enugu state, Nigeria, in light of the remarkable role literacy programmes have played in improving the lives of women in both developed and developing countries of the world.

The Study's Objectives

The main goal of this study is to examine literacy in the twenty-first century, a tool for women empowerment in communities in Enugu State, Nigeria. In particular, the research work examined literacy programmes as a tool for liberating women against:

- violence in Enugu State Nigeria;
- widowhood in Enugu State Nigeria; and
- gender discrimination in Enugu State Nigeria

Research Questions

1. How can literacy programmes liberate women against violence?
2. How can literacy programmes liberate women against widowhood?
3. How can literacy programmes liberate women against gender discrimination?

Hypothesis

1. There is no appreciable distinction between the mean responses of female adult learners from rural and urban areas on how literacy programmes can liberate women against violence.
2. There is no appreciable distinction between the mean responses of female adult learners from rural and urban areas on how literacy programmes can liberate women against gender discrimination

Methodology**Research Design**

The design adopted for the study was the descriptive survey design. According to Ali (2006) a descriptive survey design is that which uses a sample of a population to explain, describe and document the characteristics and major elements of the phenomenon being investigated. This kind of design allows the researchers to use questionnaires and interviews to learn about people's attitudes, perceptions, and views on many topics.

Area of the Study

Enugu State, Nigeria served as the location for the research work. There are 17 Local Government Areas (Aninri, Awgu, Enugu East, Enugu North, Enugu South, Ezeagu, Igbo Etiti, Igbo Eze North, Igbo Eze South, Isi Uzo, Nkanu East, Nkanu West, Nsukka, Oji River, Udeno, Udi, and Uzo-Uwani) in Enugu State, with each having Adult Education Centers. The Adult education learning centres in the rural areas include; Igbo Etiti, Uzo-Uwani, Awgu, Aninri, Ezeagu, Udeno and Isi Uzo. While the adult education centers in the urban areas were; Enugu East, Enugu North, Igbo Eze North, Udi, Nkanu East, Nkanu West, Oji River, Nsukka and Enugu South.

Population for the Study

Population for the study comprised 2671 adult female learners in both the urban and rural adult education centers in Enugu State. A breakdown of the population for urban adult education centers showed a total of 1,425 female learners and 1,256 female learners in adult education centres in the rural areas of Enugu State. And the numbers of adult learners in each centre are: Aninri 140, Awgu 144, Enugu East 150, Enugu North 175, Enugu South 168, Ezeagu 150, Igbo Etiti 167, Igbo Eze North 185, Igbo Eze South 160, Isi Uzo 150, Nkanu East 160, Nkanu West 152, Nsukka 168, Oji River 173, Udeno 160, Udi 160, and Uzo-Uwani 83 adult female learners.

Sample and sampling technique for the study

The researchers adopted the Taro Yamani formula to draw a sample size of 348 respondents for the study. A Multi-stage sampling procedure was used to put together the sample. Stage one: Enugu East, Igbo Eze North, Isi uzo, Nkanu West, Igbo Eze South and Udi Adult Education Centers were purposively selected because, these centers are active with Adult Education Programmes. Second stage: Adult Education female learners were randomly selected from each center proportionately.

Instruments for Data Collection

A structured questionnaire designed by the researchers was the instrument used to collect data. The questionnaire is divided into sections I and II. Section I was structured to obtain personal information about the respondents, while section II was structured to elicit information on adult

functional literacy for women empowerment. Section II has a total of 17 items which were further grouped into three clusters in line with the specific objectives of the study. Cluster A has 6 items, while cluster B has 4 items and cluster C has 7 items questions. The questionnaire items was structured based on a modified four-point Likert scale, running from strongly disagree (1 point) to strongly agree (4 points). The instrument was faced-validated by three Experts (All three are from the University of Nigeria, Nsukka: one from the Measurement and Evaluation Unit, in the Department of Science Education, and two from the Department of Adult Education and Extra Mural Studies). Data obtained from the trial testing were analyzed using Cronbach's alpha method to determine the internal consistency of the instrument. The device demonstrated extremely high dependability, with a reliability value of 0.87.

Data Collection

The questionnaire was distributed to the respondents at the corresponding adult literacy centres in Enugu State by the researchers and one research assistant using a direct manner and collected from them after filling. The methods for distributing and immediately gathering responses from respondents were explained to the research assistant. This made sure that the respondents filled out the questionnaire correctly. As a result, the questionnaire received a one hundred percent response rate and was properly used for data processing.

Data Analysis

Both descriptive and inferential data analysis were used in this study. The mean and standard deviation were used to address the research questions posed. A threshold mean of 2.50 was used as the norm for decision-making for each item because a four-point rating scale was used for the study. Items having a mean of 2.50 or higher were therefore declared acceptable by the respondents, whilst items with a mean lower than 2.50 were deemed unacceptable. The difference between the mean replies of Adult literacy learners from rural and urban locations were examined at $p < 0.05$ using an independent sample t-test.

Three hundred and forty eight (348) adult female learners filled out the questionnaire. The opinions of the respondents were calculated for each item on the questionnaire. The outcomes in the Tables indicate the three research questions and two hypotheses that served as the foundation for the

Results

Research Question 1: How can literacy programmes liberate women against violence?

Table 1: Mean and standard deviation of respondents' replies to items on how literacy programmes can liberate women against violence

S/ N	Items:	\bar{X}	std	Remark
1	Literacy programmes are capable of boosting women's leadership skills and access to decision-making positions	3.16	0.93	Agreed
2	Economic independence is possible for women in the rural areas through literacy programme	2.87	0.89	Agreed
3	Literacy programmes is capable of making women gain access to the right information that would enable them to get out of abusive domestic relationships	3.21	0.83	Agreed
4	Women that gain exposure to literacy education would not encourage their daughters' to enter into early marriage	2.60	0.91	Agreed
5	Literacy programmes is capable of increasing the awareness of women in the rural areas of every form of oppression	2.76	0.89	Agreed
6	Literacy instruction helped women become more aware of sensitive issues like gender-based violence in families and women's rights	2.97	0.84	Agreed

Note: \bar{X} = Mean, std = Standard Deviation, N = Number of Respondents = 348

The mean and standard deviation of the respondents' replies to questions items on how literacy programmes can liberate women against violence were displayed in Table 1. The results showed that all item statements numbers 1-6, had mean scores that are over 2.50. This indicates that female adult education learners agreed that literacy programmes is capable of liberating women against violence by boosting women's leadership skills and access to decision-making positions, earning women economic independence, make women gain access to the right information that would enable them to

get out of abusive domestic relationships, place women in position to discourage early marriage as it concerns their daughters, increase the awareness of women in the rural areas of every form of oppression and helped women become more aware of sensitive issues like gender-based violence in families and also, women's rights.

Hypothesis 1: There is no appreciable distinction between the mean responses of female adult learners from rural and urban areas on how literacy programmes can liberate women against violence.

Table 2: t-test analysis of difference in respondents' perception on how literacy programmes can liberate women against violence

Respondents	N	\bar{X}	std	t-cal	Df	P-value	Remark
Rural	220	3.15	0.50	14.10	346	0.00	Sig.
Urban	128	2.60	0.29				

\bar{X} \bar{X} = Mean; std = Standard Deviation; t-critical = 1.96; t-cal = t- calculated value; N = Number of respondents for each category; df = Degrees of freedom; Sig = Significant at 0.05 level; NS = Not significant.

By comparing respondents' perceptions on how literacy programmes can liberate women against violence, this hypothesis was examined using an independent sample t-test. The mean reaction varied significantly between female Adults from rural (\bar{X} = 3.15, SD = 0.50) and urban (\bar{X} = 2.60, SD = 0.29) areas and at the 0.05 level of significance, t-cal (346) = 14.10, p = 0.00. This conclusion led to the rejection of the null hypothesis. As a result, the different responders have different perceptions about how literacy programmes can liberate women against violence.

Consequently, null hypothesis one was disproved.

Research Question 2: How can literacy programmes liberate women against widowhood?

Table 3: Mean and standard deviation of respondents' replies to items on how literacy programmes can liberate women against widowhood

S/N	Items:	X	Std	Remark
	Literacy education can help broaden the mind as well as enhance the confidence building tool of illiterate widows in rural areas	2.94	0.95	Agreed
2	Through literacy instruction, widows can acquire the ability to evaluate incongruous events and ideals that exist in their community.	2.77	0.76	Agreed
3	Literacy programmes gave women's groups the livelihood skills they needed to raise their families' standards of living	2.56	0.65	Agreed
4	Literacy programmes empower women with some level of independence, and access to markets and credit	3.14	0.89	Agreed

Note: \bar{X} \bar{X} = Mean, SD = Standard Deviation, N = Number of Respondents = 605

Table 3 shows that all items had mean scores over 2.50, indicating that female adult education learners recognized the entire item claims as how literacy programmes can liberate women against widowhood.

Research question 3: How can literacy programmes liberate women against gender discrimination?

Table 4: Mean of standard deviation of responses of the respondents on how literacy programmes can liberate women against gender discrimination

S/N	Items:	\bar{X}	std	Remark
1	Information that would raise gender consciousness is often stored in the written form and can only be accessed if the women have the necessary literacy skills.	2.70	0.97	Agreed
2	Through literacy education, every form of cultural and traditional relegation would be overcome by women	2.97	0.98	Agreed
3	Through literacy programmes, women would be able to read and understand and control their world	2.50	0.60	Agreed
4	Literacy education would for instance enable rural women to recognize and question for example, the sources of their oppression.	2.97	0.79	Agreed

5	Literacy programme empower women so as to alter their marginalized conditions	3.11	0.84	Agreed
6	Every form of social barrier limiting women can be overcome through literacy education	3.04	0.81	Agreed
7	Women participation in civic life can be encourage by exposing them to literacy education	2.67	0.96	Agreed

Note: \bar{X} = Mean, std = Standard Deviation, N = Number of Respondents = 605

The finding in Table 4 reveals that female adult education learners thought that items 1 through 7 were the best ways through which literacy programmes can liberate women against gender discrimination ($\bar{X} > 2.50$).

Hypothesis 2: There is no appreciable distinction between the mean responses of female adult learners from rural and urban areas on how literacy programmes can liberate women against gender discrimination

Table 2: t-test analysis of difference in respondents’ perception on how literacy programmes can liberate women against gender discrimination

Respondents	N	\bar{X}	Std	t-cal	df	P-value	Remark
Rural	220	3.03	0.41	10.49	346	0.00	Sig.
Urban	128	2.54	0.42				

\bar{X} = Mean; std = Standard Deviation; t-critical = 1.96; t-cal = t- calculated value; N = Number of respondents for each category; df = Degrees of freedom; Sig = Significant at 0.05 level; NS = Not significant.

By comparing difference in respondents’ perception on how literacy programmes can liberate women against gender discrimination, this hypothesis was examined using an independent sample t-test. The mean reaction varied significantly between female adult learners from rural ($\bar{X} = 3.03$, SD = 0.41) and urban ($\bar{X} = 2.54$, SD = 0.42) areas at the 0.05 level of significance, t-cal (346) = 10.49, p = 0.00. This conclusion led the researchers to fail to accept the null hypothesis. As a result, the different responders have different perception on how literacy programmes can liberate women against gender discrimination. Consequently, null hypothesis two was disproved.

Discussion

According to this survey results, a literacy programme is a viable tool for liberating women from every form of violence in the present day. Literacy programmes are capable of boosting women’s leadership skills and elevating them to decision-making positions, as well as earning them some level of economic independence. This will go a long way towards helping them gain some level of independence. This result is consistent with what was discovered by Thingbaijam (2021), who reported that adult literacy equipped women with new skills, upgraded their old skills, acquainted them with ways and means of utilizing the provisions made in different schemes and projects, informed them of procedures for getting assistance from credit institutions and cooperatives, and such enabled them to get out of abusive relationships. From the exposure gained, women will also be in a better position to make informed decisions concerning marriage and the future of their daughters. Literacy programmes are also capable of raising the awareness of women in rural areas about every form of oppression and helping them become more aware of sensitive issues like gender-based violence in families and women's rights.

The study discovered that literacy programmes helped women suffering from being widows gain freedom by assisting them in expanding their minds and boosting their confidence. The amount of confidence widows acquired as a result of literacy programmes allowed them to develop the abilities necessary to test contradicting situations and ideals that existed in their community. In addition to being given the confidence to stand up for themselves, widows also gained some of the skills necessary for a livelihood to raise the standard of living for their

families, a certain amount of independence, and access to markets and credit. This result supports earlier findings by Dixon-Mueller (1993), whose study found that education and media exposure give widows more power by giving them the knowledge and tools they need to live successfully. Financial freedom, access to and integration into political systems apart from their kinship networks, and media exposure are all important in today's society.

According to the study's findings, literacy programmes are helping to close the gender gap. Every type of cultural and traditional oppression against women would be overcome through literacy education. Women could read, understand, and have control over their environment through literacy programmes. By doing so, they will change their marginalized circumstances and remove every type of social barrier preventing them from taking part in civic life.

An independent sample t-test of respondents' perceptions on how literacy programmes can liberate women against violence differed by location. Similarly, an independent sample t-test of respondents' perception on how literacy programmes can liberate women against gender violence differed by location. This indicated that literacy programmes had more impact on women in the rural areas than women in the urban areas.

Conclusion

Literacy programme is a viable tool for liberating women from every form of violence, widowhood, and gender discrimination. It achieves this by empowering women with numeracy skills, livelihood skills, leadership skills, and information on how to gain access to markets and credit. Literacy programmes also raised women's awareness of sensitive issues like gender-based violence in families and women's rights. Through literacy programmes, women were able to alter their marginalised conditions and break free from every form of social barrier limiting their participation in civic life.

Recommendations

Adult literacy initiatives should be supported and promoted by the government and other stakeholders. In this way, more women from all walks of life will be liberated from all forms of subjugation, especially those living in rural areas.

More effective measures are required in this direction to give women access to entrepreneurial awareness, different orientations, and skill development programmes through the adult education programme so that adult women learners can also have an equal opportunity to enter the world of entrepreneurship beyond their improvement in living and earning conditions.

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**PEACE EDUCATION AND NATIONAL SECURITY FOR
SUSTAINABLE DEVELOPMENT IN LAGOS STATE: IMPLICATION
FOR ADULT EDUCATION**

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Abstract

The need for peace and adequate provision of national security for people is crucial for sustainable development of any country. The tremendous changes and challenges in national security have brought about the need for structures to be put in place to achieve sustained peace in the society which leads to progress, development, and promotion of societal wellbeing. The study explores peace education and national security for sustainable development. The study was descriptive survey design. The population for the study was 150 respondents. There was no sampling due to the manageable size of the population. The instrument for data collection was a 15-item questionnaire titled Peace Education and National Security for Sustainable Development Questionnaire. (PENSSDQ). The instrument was face validated by three experts. A reliability coefficient of 0.82 was obtained using Cronbach -Alpha Method. Mean and standard deviation was used to analyze the research questions. While, the hypothesis was tested at 0.05 level of significance using t-test statistics. The results of the study showed that the respondents indicated that peace education entails, Knowledge of human rights, use of friendly principles of mutual trust, tolerance, use of negotiation skills and cooperation. While national security involves providing security for lives and property of citizens, organizing sensitization programs to curb youth restiveness, provision of security education plans for citizens. While, flexibility, motivation, involvement and problem-solving skills are adult education principles that promote peace and national security for sustainable development.

Introduction

The peace of any society is paramount for sustaining economic, educational, social and political development of the people. Peace is a phenomenon that is desirable by people irrespective of different social, cultural, religious, educational inclinations and the context. What is important is that the programme is relevant for that society's context and local meanings of peace, and that normative or Eurocentric frameworks are avoided (Bajaj & Hantzopoulos, 2016). Nwakaire and Kobani (2022) stated that there are two key words which revolve around peace, namely, peaceful and peaceable, one may understand that it is not just enough for a person to be peaceful but more importantly peaceable which connotes activity, that can be perceived from the cultural, ethnic, racial, political or religious aspects, problems which often results in conflicts, violence, wars, environmental problems and crimes are the various manifestations of lack of peace. Hence there is need to tackle the above challenges through peace education.

Peace education is necessary to enable citizens develop the right perspective to handle issues on a daily basis. Ikwumelu, Oyibe and Eluu (2014) stated that it is directed to the full development of the human personality, strengthening of respect for human rights and fundamental freedoms. It promotes understanding, tolerance, and friendship among people, nations, racial and religious group and further the activities for maintaining peace and national security. Furthermore, peace education establishes cultures of peace by creating awareness of various forms of violence present in the society and teaching about alternative peaceful ways of being and doing to establish harmonious relationships among them (Gursel-Bilgin, 2022). That is why it is called solution -oriented atmosphere, where conflicted problems are resolved and violence and conflicts are eliminated (Salomon, 2002). Therefore, peace education enables people to acquire skills and knowledge for tolerance, equity, love, respect for the rights of other people and avoidance of violence in the society

Peace education as a process can be seen from the philosophical perspective in promoting sustainability in the society. According to Harris and Morrison (2003), peace education is both a

philosophy and a process that involves the acquisition of skills, attitudes and knowledge to create a safe world, to build a sustainable environment and to bring social change. As a philosophy, peace education is guided by a set of ideas, doctrines and principles which are centered on changing mindset, cultivating skills and attitudes conducive for peace, human rights, environmentalism, disarmament, and promotion of a culture of peace (Salomon, 2002). In this study, peace education involves acquiring values for attitudinal change in the society. This can be achieved by applying some basic principles in adult education.

Adult Education

Adult education provides diverse skills and competencies for people to cope adequately and function well in society to achieve set out goals for sustainable development. The European Association for Education of Adults (EAEA) (2018), stated that adult education contributes to individual and collective development of societies by providing knowledge, skills and competencies for professionals and private life. It also promotes transversal and generic skills, that is social, communication and analytical skills that can trigger sustainable development. Consequently, adult education fosters the use of flexibility, creativity, self-discovery skills to meeting the needs of people and a decisive role in a globally interconnected world. According to Knowles (1984), adults have strong motivations to learn from internal things such as job satisfaction, self-esteem, self-actualization, and quality of life are the main priorities. While for solution-oriented aspects, adults are eager to learn what will help to solve problems by absorbing new knowledge and skills for application to real-life situations. In this work, adult education refers to avenues for people to learn by acquiring new knowledge to solve problems that occur in daily interaction with others in the society. This can be achieved by developing peace ideals, enlightening people on cultural understanding, social awareness, self-confidence, communal harmony and national security.

National security

The government is saddled with the responsibility of providing the people within its territory with adequate security. Onuabuchi, Krukrubo, Ohakwem, Echeonwu & Silas (2022) maintained that security is protection against all sorts of social, physical, economic, and psychological threats or harm. National security entails the proper regulation of the international boundary lines which defines the land area of a sovereign nation. Likewise, Rajan (2022) noted that the key responsibilities of national security are the detection of prospective threats and the planning of the proper response. Thus, national security sector provides defenses against hazards to territorial security which could be threatened by a military occupation, prolonged flooding, economic security, ecological security, physical security, social and political stability, disruptions to online financial transactions due to major internet or electrical outages, damage to the environment caused by pollution, extreme heat or drought, in addition to citizens and national institutions' financial stability is protected by national security. In this study national security means putting in place proper safety measures to protect people living within the territorial boundary of a nation against various forms of threat in a sustainable way.

There are new perspectives and approaches to national security in terms of sustainability of resources, technology and the environment. According to Abdulahi, Ogbale and Esoso (2022), banditry, armed robbery and theft, are threats to national security as these violent crimes aggravate unemployment, food shortage, loss of lives and properties. Sahara reporters (2021) noted that Lagos State have experienced repeated clashes between locals and Hausa-speakers in which hundreds of people died. Also, fighting between community members and gangs armed with bottles, swords and clubs resulted to the scores of people wounded, loss of lives and burning of properties. In essence, there is need for modification of psyche; reorientation, sensitization, national rebirth and rebranding of the various sectors to provide ways for attitudinal change in developing the much-desired true patriotic spirit for fundamental peaceful co-existence (Umo 2014). Hence the need for peace education to aid security and socio-economic growth for sustainable development.

Sustainable development

The environment needs to be protected by encouraging activities that support practices for healthy living of people in order to avoid pollution and other activities which affect sustainable development. According to Omoruyi and Abey-Fashae (2015) sustainable development can be seen in terms of change in growth process leading to a more enduring process of development for the future. The International Institute for Sustainable Development (IISD) (2019) stated that sustainable development is development that meets the needs of the present without compromising the ability of

the future generations to meet their own needs. In this context, sustainability is viewed as the priority of effectively meeting the security, education, social, cultural, economic and environmental needs in a systematic way that promotes wellbeing for people. It is evident from the foregoing, that clear relationships of frameworks, values, and principles enables people to adopt broad perspectives on issues that improves knowledge base. This orientation has positive influence for empowerment and is a link between peace education, national security, adult education and sustainable development.

Statement of the problem

The need for people to live in peace and safety is vital due to the positive effects on economic and social development in any society. Thus, any danger and threat to life of people and property indicate lack of security and peace. This is because violence in some communities led to loss of lives, loss of human capital, disruption of activities, apprehension and many others were displaced. The activities of 'Omonile' and land grabbers also contribute to disrupting peace in Lagos State. This situation calls for efforts to educate people to promote peace within the society which will lead to sustainable development. Therefore, the study seeks to investigate peace education and national security for sustainable development in Lagos State. The purpose of this study is to investigate peace education and national security for sustainable development in Lagos State: Implication for adult education.

Research questions

1. What are the values that can promote peace education for enhancing sustainable development in Lagos State?
2. What are the strategies that can promote national security for enhancing sustainable development in Lagos state?
3. In what ways can adult education promote peace for enhancing sustainable development in Lagos State?

Hypothesis

1. There is no significant difference between the mean responses of male and female respondents on what are the values that can promote peace education for enhancing sustainable development in Lagos State
- 2.. There is no significant difference between the mean responses of male and female respondents on the strategies that can promote national security for enhancing sustainable development in Lagos state
3. There is no significant differences between the mean responses of male and female respondents on what ways adult education can promote peace for enhancing sustainable development in Lagos State

Methodology

Descriptive survey research design was adopted for the study. The population for the study was 150 respondents. There was no sampling as the size was manageable. A structured questionnaire titled Peace Education and National Security for Sustainable Development Questionnaire (QPENSSD) was the instrument used for data collection. The questionnaire was divided into two sections, A and B. Section A was structured to obtain the general personal information about the respondents such as status (Male and Female) while section B of the questionnaire was divided into three clusters, clusters A - C in respect to the three specific objectives of the study. Cluster A items (1-5) provided data on the values that can promote peace education for enhancing sustainable development in Lagos State, cluster B items (1-5) provided data on strategies that can promote national security for enhancing sustainable development in Lagos State. and cluster C, items (1-5) provided information on the ways adult education can promote peace for enhancing sustainable development in Lagos State. Items from clusters A to D were structured on a 4-point rating scales of Strongly Agree (SA) 4, Agree (A) 3, Strongly Disagree (SD) 2, and Disagree (D) 1. The instrument was face validated by three experts. To ensure the reliability of the instruments, it was pilot tested, and data obtained from the pilot test was analyzed using Cronbach alpha method. Thus, a reliability coefficient of 0.82 was established signifying that the instrument is reliable.

Direct delivery and retrieval method was used by the researchers and two research assistants for distributing and collecting the questionnaire from the respondents at their various locations used for the study on the spot. This ensured that the respondents appropriately completed the questionnaire. Thus, there was 100% return of the questionnaire, and these were duly used for data analysis.

The data analysis employed in this study was both descriptive and inferential statistics. Descriptive statistics (mean and standard deviation) were used to answer the research questions. A Mean of 2.50 was used as the benchmark for decision making for the Mean score, since a four-point rating scale was used for the study. Thus, any item with a mean of 2.50 and above was considered as accepted by the respondents, while any item with a mean below 2.50 was considered as unaccepted by the respondents. T-test statistics was used to test the differences in the Mean responses of respondents at $P < 0.05$. All computations were carried out using the Statistical Package for Social Science (SPSS) version 22.

Results

One hundred and fifty respondents completed the questionnaire. The responses of the respondents on each of the items in the questionnaire were computed. Results are presented in Tables.

Research question 1: *What are the values that can promote peace education for enhancing sustainable development in Lagos State?*

Results of Research Question one, are presented on table 1

Table 1: Mean responses of the respondents on the values that can promote peace education for enhancing sustainable development in Lagos State

S/N	Item statements:	Mean	SD	Decision
1	Develop ability to cooperate enhances peace for sustainable development	2.85	0.92	Accepted
2	Knowledge of human rights helps to promote peace for sustainable development	2.86	0.93	Accepted
3	Strengthening friendly principles of mutual respect enhance peace for sustainable development	2.70	0.87	Accepted
4	Utilizing negotiation skills in resolving violent conflicts helps to enhance peace for sustainable development	2.89	0.92	Accepted
5	Developing awareness towards acceptance of different ethnic bias enhance peace for sustainable development	2.93	0.89	Accepted

Note: =Mean, SD=Standard Deviation, N = Number of Respondents=150

The results presented in Table 1 showed the mean and standard deviation of respondents' responses on the values that can promote peace education for enhancing sustainable development in Lagos State. The results showed the respondents identified item statements 1-5 as values that can promote peace education for enhancing sustainable development in Lagos State (> 2.50).

Hypothesis 1: There is no significant difference between the mean responses of male and female on the values that can promote peace education for enhancing sustainable development in Lagos State.

The Results of Hypothesis 1 are presented on table 2

Table 2: t-test analysis of difference in respondents on the values that can promote peace education for enhancing sustainable development in Lagos State

Respondents	N	Mean	SD	t-cal	df	P-value	Decision
Male	83	2.93	0.54	2.19	148	0.03	Sig.
Female	67	2.74	0.47				

= Mean; SD = Standard Deviation; t-critical = 1.96; t-cal = t- calculated value; N = Number of respondents for each category; df = Degrees of freedom; Sig = Significant at 0.05 level; NS = Not significant.

This hypothesis was tested by carrying out an independent sample t-test by comparing respondents' views on the values that can promote peace education for enhancing sustainable development in Lagos State. There was a significant difference in the mean response for male (= 2.93, $SD = 0.54$) and female (= 2.74, $SD = 0.47$), $t\text{-cal} (148) = 2.19$, $p = 0.03$ at 0.05 level of significance. Following this result, the null hypothesis was rejected. Hence, the responses of respondents on the values that can promote peace education for enhancing sustainable development in Lagos State differ by the various respondents.

Research question 2: *What are the strategies that can promote national security for enhancing sustainable development in Lagos State?*

Results of Research Question two are presented on table 3

Table 3: Mean responses of the respondents on the strategies that can promote national security for enhancing sustainable development in Lagos State

S/N	Items statements:	X	SD	Decision
1	Increased safety sensitization programs will enhance national security for sustainable development	2.80	0.88	Accepted
2	Provision of security equipment for personnel will enhance national security for sustainable development	2.67	0.93	Accepted
3	Conducting capacity building programs for security staff will enhance national security for sustainable development	2.65	0.81	Accepted
4	Provision of safety information network will help to enhance national security for sustainable development	3.21	0.66	Accepted
5	Providing solar powered CCTV in public places will help to enhance national security for sustainable development	3.11	0.69	Accepted

Note: =Mean, SD=Standard Deviation, N = Number of Respondents=150

From Table 3, it can be seen that all items had mean scores above 2.50 indicating item statements 1-5 were identified by the respondents' strategies that can promote national security for enhancing sustainable development in Lagos State.

Hypothesis 2: There is no significant difference between the mean responses of male and female on the strategies that can promote national security for enhancing sustainable development in Lagos State.

The Results of Hypothesis 2 are presented on table 4

Table 4: t-test analysis of difference in respondents' views on the strategies that can promote national security for enhancing sustainable development in Lagos State

Respondents	N	SD	t-cal	df	P-value	Decision
Male	297	2.94	0.37	148	0.06	NS
Female	101	2.82	0.36			

= Mean; SD = Standard Deviation; t-critical = 1.96; t-cal = t- calculated value; N = Number of respondents for each category; df = Degrees of freedom; Sig = Significant at 0.05 level; NS = Not significant.

This hypothesis was tested by carrying out an independent sample t-test by comparing respondents' views on the values that can promote peace education for enhancing sustainable development in Lagos State. There was no significant difference in the mean response for male (= 2.93, SD = 0.54) and female (= 2.74, SD = 0.47), $t\text{-cal} (148) = 2.19$, $p = 0.03$ at 0.05 level of significance. Following this result, the null hypothesis was not rejected. Hence, the responses of respondents on the values that can promote peace education for enhancing sustainable development in Lagos State do not differ by the various respondents.

Research question 3: *In what ways can adult education promote peace for enhancing sustainable development in Lagos State?*

Results of Research Question three are presented on table 5

Table 5: Mean responses of the respondents on the ways adult education can promote peace for enhancing sustainable development in Lagos State

S/N	Item statements:		SD	Decision
1	Increased skills on flexibility promotes peace for sustainable development	3.31	0.61	Accepted
2	Involving people in enlightenment programme on tolerance will promote peace for sustainable development	2.91	0.84	Accepted
3	Increased problem-solving skills will promote peace for sustainable development	2.69	0.72	Accepted
4	Motivating people on the need for social integration will promote peace for sustainable development	2.89	0.83	Accepted
5	Building skills on creativity will promote peace for sustainable development	2.61	0.89	Accepted

Note: =Mean, SD=Standard Deviation, N = Number of Respondents=150

Result in Table 5, suggest that item statement 1-5 were identified as ways adult education can promote peace for enhancing sustainable development in Lagos State (> 2.50).

Hypothesis 1: There is no significant difference between the mean responses of male and female on the ways adult education can promote peace for enhancing sustainable development in Lagos State

The Results of Hypothesis 3 are presented on table 6

Table 6: t-test analysis of difference in respondents' views on ways adult education can promote peace for enhancing sustainable development in Lagos State

Respondents	N	SD	t-cal	df	P-value	Decision	
Male	83	2.87	0.44	1.67	148	0.10	NS
Female	67	2.99	0.47				

= Mean; SD = Standard Deviation; t-critical = 1.96; t-cal = t- calculated value; N = Number of respondents for each category; df = Degrees of freedom; Sig = Significant at 0.05 level; NS = Not significant.

This hypothesis was tested by carrying out an independent sample t-test by comparing respondents' views on the ways adult education can promote peace for enhancing sustainable development in Lagos State. There was no significant difference in the mean response for male (= 2.87, SD = 0.44) and female (= 2.99, SD = 0.47), $t\text{-cal}(148) = 1.67, p = 0.10$ at 0.05 level of significance. Following this result, the null hypothesis was not rejected. Hence, the responses of respondents on the values that can promote peace education for enhancing sustainable development in Lagos State do not differ by the various respondents.

Discussion of findings

The results of this study showed that the values of peace education for enhancing sustainable development includes ability to cooperate with people, knowledge of human rights, strengthening the use of friendly principles on mutual trust, utilizing negotiation skills in resolving violent conflicts, developing awareness, towards acceptance of different ethnic bias. The findings are in line with Harris and Morrison (2012) which indicated that peace education is a medium for building a more tolerant world based on mutual respect, nonviolence, justice, and sustainability. Also, Umo (2014) highlighted the need for the formulation of a framework that is responsive to human rights-based, that will enable development planners and programmers bridge the gaps that account for much of the negative impact of development activities on peace and conflict.

The findings of the study revealed that strategies of national security for enhancing sustainable development include; developing increased safety sensitization programmes, Provision of security equipment for personnel, conducting capacity building programmes for security staff, provision of safety information network, providing solar powered Close Circuit television in public places. This is in resonance with the work of Rajan (2022) that national security is important in maintaining domestic order. It also extends to the health and prosperity of the people as well as the relationships between all nations. Finally, the study identified adult education principles that promote

peace for enhancing sustainable development to include; increased flexibility skills, involving the people in enlightenment on tolerance, increased problem-solving skills, motivating people on social awareness, building creativity, critical thinking, skills. This is in line with Ugwuoke, Agboeze and Onu (2014) that identified psychology, sociological principles of adult learning, creativity, problem solving, critical thinking, team building, conflict resolution and innovative skills for emerging knowledge economy and transformation. Also, University of Mumbai (2022) that adult education plays a crucial role in supporting society's capacity for adaptability and change, creating a competitive workforce for competing and surviving in the global economy. As the capacity and potential of adult education enables people to recognize human potential fully by relating individual experiences to things that are happening around the environment.

Conclusion

Based on the findings, it was concluded that peace education and national security for enhancing sustainable development entails making provisions for sensitizing and educating people on positive attitude, good values and living in harmony. The government can create and utilize different platforms to cater for security of lives and property which is a complex issue that involves monitoring, of the environment and reporting any threat promptly to security agencies in other to sustain peace for sustainable development.

Recommendation

The government and community-based organizations can sponsor talks and programmes on peace that could help to avert national security challenges, maintain peace and empower people to ensure a sustainable environment.

Administrators should have good decision-making plans in the system to cater for exigencies on security issues. Security managers should be equipped with necessary equipment and skills for tackling national security issues which pose serious threat to peace in the society.

NGOs should support funding adult education programmes geared towards mobilization and enlightenment of people on peace for sustainable development using various forms of electronic media.

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**ROLE OF CREATIVE PROBLEM-SOLVING IN CAREER
DEVELOPMENT OF GIFTED INDIVIDUALS:
SHAPING EMPLOYMENT OPPORTUNITIES
AND FOSTERING WEALTH CREATION**

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Abstract

This study examines the implications of creative problem-solving in the career development of gifted individuals, focusing on employment opportunities and wealth creation. It highlights the intersection of giftedness and creative problem-solving abilities, emphasizing the link between these attributes and career success. The study identifies challenges faced by gifted individuals in utilizing creative problem-solving and proposes strategies to overcome these obstacles. Educational and professional interventions, including integrating creative problem-solving in curricula and offering mentorship programs, are recommended. Furthermore, collaborations between academia, businesses, and governments are suggested to promote creative thinking and innovation. The study also underscores the importance of responsible innovation and sustainability. On the whole, empowering gifted individuals to harness their creative potential can lead to enhanced career prospects, increased employability, and entrepreneurial success, contributing to wealth creation and economic growth. Based on the study, it was recommended among others that educational institutions should integrate creative problem-solving as core component of curricula for gifted individuals. Hence, incorporating interdisciplinary projects, real-world challenges, and opportunities for independent research can foster a culture of innovation and encourage creative thinking from an early age.

Keywords: Gifted individuals, creative problem-solving, career development, employment, wealth creation, innovative thinking, educators, career counselors

Introduction

In an ever-changing and competitive world, the power of creativity and innovation has become a driving force for success in various spheres of life. At the forefront of this dynamic landscape are gifted individuals, those with exceptional intellect, ingenuity, and problem-solving prowess. Beyond conventional measures of intelligence, the true essence of giftedness lies in the convergence of creative thinking and intellectual brilliance. This study sets out to explore the paramount role of creative problem-solving in shaping the career development of gifted individuals, unveiling how this unique combination of abilities propels them towards unmatched employment opportunities and fosters a transformative path to wealth creation. Traditionally, gifted individuals have been identified through standard intelligence tests, but the understanding of their capabilities has evolved significantly in recent years. Renowned scholars, such as Renzulli (2009), have proposed alternative models like "The three-ring conception of giftedness: A developmental model for creative productivity," emphasizing the importance of creativity in defining giftedness. Gardner (2011), in his groundbreaking work "Frames of Mind: The Theory of Multiple Intelligences," expanded on the notion of giftedness, highlighting that exceptional talents extend beyond intellectual prowess to encompass artistic, interpersonal, and intrapersonal skills.

This fresh perspective has led to a broader appreciation of gifted individuals and their diverse talents, encompassing not only creativity and intellectual abilities but also leadership and emotional intelligence. Moreover, the recognition of creative problem-solving as a defining feature of giftedness has reshaped the approaches to identifying and nurturing giftedness in educational and professional settings. As industries embrace rapid technological advancements and navigate complex global challenges, the demand for creative thinkers who can find innovative solutions has skyrocketed. Gifted individuals, armed with their exceptional problem-solving abilities and creative minds, are now

sought after in various fields, including science, technology, engineering, arts, and mathematics (STEAM) disciplines, business, and entrepreneurship. Their unique skillset enables them to break barriers, seize novel opportunities, and create groundbreaking ventures that drive progress and shape the world we live in. In light of these transformative trends, understanding the intricate relationship between giftedness, creative problem-solving, and career development becomes crucial. This study aims to shed light on the various factors that contribute to the success of gifted individuals, their experiences in navigating career choices, and the strategies they employ to harness their potential fully. Hence, by delving into the journeys of these extraordinary individuals, we can glean insights into how societies can foster environments that nurture creativity and innovation, allowing gifted minds to flourish and spearhead positive change.

Conceptualization

A gifted individual refers to people who demonstrate exceptional abilities, talents, or potential in one or more areas compared to their peers of the same age or developmental stage. These individuals often exhibit advanced cognitive, creative, or physical skills, which set them apart and make them stand out in their respective fields. Giftedness can manifest in various domains, including intellectual, artistic, musical, athletic, or leadership abilities. According to Renzulli (2006) opined three-ring conception of giftedness, gifted individuals possess a unique combination of above-average ability, task commitment, and creativity. This model views giftedness as a developmental process that involves the interaction between these three essential components. Above-average ability refers to high intellectual, academic, or creative skills in specific domains. Task commitment involves a strong motivation and dedication to persevere and excel in challenging tasks. Creativity refers to the ability to think divergently and generate novel and innovative solutions. Gifted individuals, under this conception, demonstrate outstanding potential and exhibit a remarkable ability to achieve creative productivity. Sternberg (2008) definition of gifted individuals encompasses the idea of wisdom, intelligence, and creativity working in harmony. He proposes that giftedness is not solely based on traditional measures of intelligence but includes wisdom and creativity as essential components. Gifted individuals possess a deep understanding of complex issues, the ability to apply knowledge effectively, and the capacity to think creatively and outside the box. According to Sternberg, gifted individuals demonstrate exceptional cognitive abilities, display insightful problem-solving skills, and show a propensity for innovative thinking. Operationally, Gifted individuals are individuals who possess a high level of innate aptitude, allowing them to excel and achieve at a level beyond what is considered typical for their age group. Identifying and nurturing the unique talents of gifted individuals is crucial to providing them with appropriate support and opportunities to reach their full potential.

Study conducted by Robinson (2014) on "Gifted Lives: What Happens when Gifted Children Grow Up" sheds light on the challenges they encounter during their career journey, emphasizing the need for an ecosystem that nurtures their exceptional abilities. Such challenges include societal expectations, limited educational support, and a lack of platforms that harness their creative problem-solving skills. The innovative research by Kaufman and Plucker (2011) on the link between playfulness, creativity, and innovation forms a foundational pillar of this investigation, as it highlights the inextricable connection between creativity and career success. Gifted individuals, with their unparalleled problem-solving capabilities, possess a potent capacity to become the driving force behind groundbreaking innovation and transformative business ventures. Hence, by delving into the significance of creative problem-solving in the career development of gifted individuals, this study aims to contribute to the establishment of inclusive economies that recognize and harness the vast potential of gifted minds (Kaufman & Plucker, 2011). Moreover, insights derived from this research will serve as a clarion call for educational institutions, employers, and policymakers to create an environment that fosters and celebrates creative problem-solving, propelling gifted individuals towards fulfillment, success, and collective prosperity.

Giftedness is a complex concept that extends beyond conventional measures of intelligence. Renzulli (2009) defined giftedness as the dynamic interaction among three basic clusters of human traits: above-average ability, high levels of task commitment, and high levels of creativity. Individuals who possess or develop this composite of traits are likely to demonstrate exceptional performance in a wide range of culturally valued fields. Gardner (2011) refers to giftedness as the manifestation of a unique set of advanced abilities and potentials in one or more areas, such as intellectual, creative, artistic, leadership, or specific academic fields. These abilities significantly exceed what is considered typical for individuals of the same age, experience, and environment. Similarly, Renzulli (2009) emphasizes creativity as a vital aspect of giftedness. According to the author, this model posits that

giftedness emerges from the convergence of above-average ability, task commitment, and creativity. Gardner's theory of multiple intelligences (2011) also shapes the understanding of giftedness, proposing distinct intelligences beyond traditional measures, such as linguistic, logical-mathematical, and musical intelligences. Acknowledging the multifaceted nature of giftedness allows individuals to excel in diverse domains, facilitating the recognition and nurturing of their unique talents.

Gifted Individuals in Career Development

Gifted individuals possess exceptional abilities that set them apart from their peers, and these unique traits can significantly influence their career development. These individuals often exhibit high levels of intellectual capacity, creativity, and problem-solving skills, making them well-suited for various fields and positions. However, despite their remarkable talents, gifted individuals face specific challenges as they navigate their professional journeys. One prominent challenge is the underestimation and misunderstanding they may encounter from others who fail to recognize the full extent of their capabilities (Renzulli, 2009). Such misconceptions can lead to missed opportunities and feelings of frustration and isolation. Moreover, gifted individuals often set high standards for themselves, which can result in perfectionism and self-criticism (Gardner, 2006). While their pursuit of excellence drives outstanding achievements, it may also lead to burnout and reluctance to take on tasks where success is uncertain (Gardner, 2011).

Additionally, the dearth of stimulating workplace opportunities can disengage and leave gifted individuals unfulfilled. Routine tasks fail to challenge them, leading to a quest for innovative challenges elsewhere. Interpersonal hurdles may emerge due to asynchronous development or difficulty relating to peers effectively. Building strong working relationships and teamwork may demand extra effort. Gifted individuals may also face pressure to follow conventional career paths, limiting exploration of diverse opportunities, hindering unconventional career choices. Their intense dedication can affect work-life balance. Recognizing and addressing these challenges is crucial for supporting their career development. Mentorship, tailored support, and growth opportunities can help them achieve their full potential. Nurturing their talents and understanding their unique needs can unlock the transformative power of gifted individuals, enabling significant contributions to their fields and society at large.

Gifted individuals often set high standards and may grapple with perfectionism (Gardner, 2011). While this pursuit of excellence can lead to remarkable achievements, it can also result in excessive self-criticism, burnout, and hesitancy to tackle uncertain tasks. They may become disengaged in unstimulating work environments, affecting career fulfillment. Building effective relationships and collaborating can be challenging, especially with asynchronous development or peer-related difficulties. Acknowledging these challenges and offering tailored support, mentorship, and skill development opportunities is crucial. Societal expectations and misconceptions about giftedness can limit career choices and growth opportunities. Silverman's exploration of Dabrowski's theory (2018) sheds light on gifted individuals' intense experiences, impacting career development, identity, and belonging. Understanding the perspectives of various authors (Dabrowski, 2018) enriches comprehension of how creative problem-solving intersects with gifted individuals' diverse dimensions. Embracing the multifaceted nature of giftedness fosters inclusivity, empowering them to unleash creative potential and contribute significantly to society.

Exploring Creative Problem-Solving as a Skill-set

Creative problem-solving is a cognitive process that involves generating innovative ideas, thinking critically, and finding novel solutions to complex challenges. For gifted individuals, this skill set goes hand in hand with their unique characteristics, as it allows them to channel their intellectual abilities into practical and inventive endeavors. Hence, by engaging in creative problem-solving, gifted individuals can navigate intricate problems and create breakthrough solutions that may elude others. Their propensity for divergent thinking and imaginative approaches gives them a distinctive edge in addressing real-world issues with ingenuity. The alignment between creative problem-solving and the characteristics of gifted individuals is profound. Kaufman and Plucker (2011) emphasize that playfulness, curiosity, and the ability to explore alternative perspectives are inherent in gifted individuals, making them predisposed to creative problem-solving. Moreover, Gardner's theory of multiple intelligences (2011) highlights the presence of creative intelligence among gifted individuals, providing them with an enhanced capacity for innovative thinking. Gifted individuals' heightened cognitive abilities, combined with their intense passion for exploration and learning, create a fertile ground for creative problem-solving. They often thrive in dynamic, challenging environments where

their creativity is nurtured and celebrated, propelling them to excel in various fields, from arts and sciences to entrepreneurship and technological innovation.

Importantly, there is a link between creative problem-solving and career success is evident in the achievements of gifted individuals. Their ability to think beyond conventional solutions enables them to embrace uncertainty, adapt to change, and envision new possibilities. As highlighted by Sternberg (2008), gifted individuals' creative intelligence facilitates their success in addressing complex issues, making them valuable assets in workplaces that prioritize innovation and adaptability. Gifted individuals who harness their creative problem-solving skills effectively often excel in entrepreneurial endeavors. However, by identifying market gaps and developing inventive products or services, they contribute to economic growth and wealth creation. Furthermore, in corporate settings, their capacity for strategic thinking and innovative problem-solving positions them as effective leaders and key contributors to organizational success. On the whole, creative problem-solving serves as a catalyst for the career development of gifted individuals, enabling them to navigate diverse professional landscapes and thrive in domains that demand innovative thinking and adaptability. Embracing their unique problem-solving abilities unlocks their full potential, shaping their employment opportunities, and fostering a pathway to wealth creation.

Impact of Creative Problem-Solving on Employment Opportunities

The value of creative problem-solving is evident in various industries and professions that prioritize innovation and adaptability. In the technology and IT sectors, creative thinkers who can devise novel solutions to emerging challenges are highly sought after (Kaufman & Plucker, 2011). These individuals are instrumental in developing cutting-edge products and services, finding innovative ways to address technological issues, and enhancing user experiences. Similarly, design-related industries, such as graphic design, fashion, and architecture, heavily rely on creative problem-solving to create aesthetically appealing and functional solutions (Sternberg, 2008). Designers in these fields must blend artistic creativity with practical problem-solving to deliver products and structures that meet both form and functions requirements.

In marketing and advertising, the ability to think outside the box is highly valued, as it allows professionals to devise unique and attention-grabbing campaigns (Gardner, 2011). Creative thinkers in this realm can captivate audiences, evoke emotions, and effectively communicate brand messages. The entertainment and media industry also thrives on creative minds that generate compelling content and storytelling (Csikszentmihalyi, 2008). Writers, directors, and artists in this domain leverage creative problem-solving to craft engaging narratives, produce visually stunning works, and captivate audiences worldwide. Furthermore, research and development sectors highly favour individuals who can explore unconventional ideas and engineer breakthrough innovations (Kaufman & Plucker, 2011). Scientists, engineers, and researchers rely on creative problem-solving to push the boundaries of knowledge and make groundbreaking discoveries. Industries such as healthcare, energy, and environmental science benefit from these innovations, leading to advancements that have a transformative impact on society.

Study conducted by Sternberg (2008) posited that there is case studies of gifted individuals who have effectively harnessed creative problem-solving in their careers illustrate its profound impact on employment opportunities. For example, consider a gifted software developer who identified an innovative approach to streamline processes within the company (Sternberg, 2008). By presenting this creative solution, the developer not only enhanced efficiency but also garnered recognition, leading to promotions and opportunities for further contributions. Their ability to think creatively and problem-solve strategically made them an invaluable asset to the organization. In another case, a gifted marketing strategist developed an out-of-the-box marketing campaign for a product launch (Kaufman & Plucker, 2011). This campaign resulted in remarkable customer engagement and increased sales. The success of this creative endeavor catapulted the strategist into a leadership role, with a broader scope to influence the company's marketing strategies. Their creative problem-solving skills elevated the brand's visibility and bottom line, setting them apart as an exceptional marketing professional. However, these case studies exemplify how gifted individuals' creative problem-solving abilities can be a driving force behind their career advancements and open doors to diverse employment opportunities. Hence, their ability to think innovatively and solve complex challenges propels them to excel in various industries and roles.

Employment Trends that Favour Creative Thinkers in the Job Market

Employment trends in the modern job market increasingly favour creative thinkers, providing compelling evidence of the impact of creative problem-solving on career opportunities (Gardner,

2011). As businesses recognize the importance of innovation and adaptability in a rapidly evolving world, they actively seek employees who can contribute fresh ideas and approaches. Employers across different industries value creative problem-solving skills, as they drive organizational growth and competitiveness. Job descriptions often include requirements for creative problem-solving skills, emphasizing the need for candidates who can tackle complex challenges and drive innovative solutions (Kaufman & Plucker, 2011). Organizations understand that hiring creative thinkers enhances their capacity for problem-solving, drives product and process innovation, and promotes a culture of continuous improvement. Additionally, startups and entrepreneurial ventures actively seek gifted individuals with strong creative problem-solving abilities to pioneer new products, services, and business models (Csikszentmihalyi, 2008). These ventures thrive on creative thinking and risk-taking, making it an ideal space for gifted individuals to leverage their talents and contribute to wealth creation. Entrepreneurs who possess creative problem-solving skills can identify market gaps, develop inventive solutions, and drive the growth and success of their ventures.

Hence, the impact of creative problem-solving on employment opportunities is evident in the growing demand for individuals who can think innovatively and adapt to changing circumstances. Industries across various sectors value creative thinkers who can drive innovation, fuel growth, and shape the future of their organizations. As such, creative problem-solving has become a significant determinant in unlocking diverse and rewarding career paths for gifted individuals. Their ability to contribute fresh perspectives, devise inventive solutions, and adapt to dynamic environments positions them as invaluable assets in the modern workforce.

Innovative Entrepreneurship and Wealth Generation

Harnessing the power of creative problem-solving in the realm of entrepreneurship provides gifted individuals with a potent pathway to wealth creation. Entrepreneurs with exceptional creative thinking abilities and a keen eye for identifying market opportunities are uniquely positioned to drive their ventures towards success (Kirzner, 2009). Through creative problem-solving, these gifted individuals can develop novel products or services that address unmet needs or existing challenges in innovative and unique ways. By providing solutions that stand out in the market, they attract customers, gain a competitive advantage, and create value, ultimately leading to increased profitability and wealth generation. Moreover, creative problem-solving is crucial for entrepreneurs as they navigate the ever-changing landscape of the business world. In an era of rapid technological advancements and evolving consumer preferences, the ability to think innovatively enables entrepreneurs to anticipate changes, adapt quickly, and pivot when necessary (Ries, 2011). By proactively addressing challenges and embracing opportunities through creative problem-solving, these gifted entrepreneurs can foster sustained growth, financial prosperity, and long-term success.

In established businesses, creative problem-solving plays a pivotal role in driving success and achieving sustainable growth. Gifted individuals who excel in this skill can become valuable assets for organizations, helping them overcome challenges and seize opportunities that lead to increased efficiency, productivity, and profitability. An environment that fosters creativity and creative problem-solving can lead to a culture of innovation within companies (Amabile, 2008). When employees are encouraged to think creatively and contribute unique ideas, it creates a dynamic and vibrant work culture. This culture of innovation can lead to breakthrough products, streamlined processes, and enhanced customer experiences, all of which contribute to business success and financial gains. Moreover, creative problem-solving equips organizations with the ability to navigate complex and ambiguous situations (Renzulli, 2009). Gifted leaders can tackle intricate challenges and make informed decisions based on innovative thinking. Their ability to identify unconventional solutions can provide a competitive edge, enabling companies to outperform competitors and secure a stronger position in the market.

Challenges faced by Gifted Individuals

Gifted individuals encounter a series of obstacles in their professional and personal lives that can hinder their creative problem-solving abilities and overall satisfaction. These challenges include:

Underestimation and Misalignment of Skills: Gifted individuals often find their advanced cognitive and problem-solving skills underestimated and misunderstood by others, be it employers, colleagues, or even themselves. This misalignment can lead to frustration and disengagement, as traditional work settings may not fully appreciate their talents (Renzulli, 2009).

Limited Creative Expression: Many workplaces prioritize adhering to established routines, leaving little room for creative thinking. Gifted individuals thrive when they can explore unconventional

solutions, but rigid structures and tight deadlines can restrict their creative potential, diminishing job satisfaction (Amabile, 2008).

Resistance to Change and Risk Aversion: Innovative ideas and unconventional solutions, essential to creative problem-solving, can face resistance in conservative work cultures. Gifted individuals may encounter opposition when proposing new ideas, hindering their ability to fully leverage their talents (Sternberg, 2008).

Lack of Collaborative Opportunities: Collaboration can fuel creative inspiration and problem-solving, but gifted individuals often struggle to find like-minded peers or teams that match their energy and drive (Csikszentmihalyi, 2008).

Pressure to Conform: Societal and organizational pressure to conform to predefined roles and career paths can overshadow the pursuit of creative problem-solving. This can lead to self-doubt and hinder the showcasing of their abilities (Robinson, 2014).

Emotional and Cognitive Overload: Managing heightened sensitivities and intense thought processes associated with giftedness can result in emotional and cognitive overload. Coping with these demands is essential for overall well-being (Silverman, 2018).

Societal Barriers to Giftedness: Society's misconceptions and attitudes towards gifted individuals can further impede their growth and creative problem-solving abilities. These societal barriers include:

Neglect of Giftedness: A common misconception downplays the significance of giftedness, assuming that exceptional abilities guarantee success without additional support. This neglect can hinder the development of creative problem-solving skills (Subotnik et al., 2011).

Labeling and Stereotyping: Gifted individuals may be labeled and stereotyped based on their cognitive abilities, leading to expectations of perfectionism and limiting opportunities for creative exploration (Robinson, 2014).

Social Isolation and Peer Relationships: Gifted individuals often struggle to connect with like-minded peers, leading to social isolation and emotional challenges (Neihart, 2016).

Pressure to Perform: Societal expectations for constant high achievement can create overwhelming pressure and shift focus away from embracing their creative potential (Colangelo & Assouline, 2020).

Underrepresentation and Underutilization: Gifted individuals from underrepresented backgrounds may face additional challenges due to limited access to resources and support, hindering their creative development (Colangelo & Assouline, 2020).

Lack of Tailored Educational Support: Traditional educational systems often fail to cater to the unique learning needs of gifted individuals, leaving them unchallenged and unengaged (Maker & Schiever, 2019). Hence, it is crucial to recognize and address these challenges and societal misconceptions to unlock the full potential of gifted individuals as creative problem-solvers in both their careers and personal lives. Creating supportive environments that nurture their talents is key to fostering innovation and betterment on a global scale.

Strategies to overcome challenges and foster a supportive environment

Recognizing and addressing the challenges faced by gifted individuals is essential to create a supportive environment that nurtures their creative problem-solving abilities. According to Maker & Schiever (2019) by implementing targeted strategies, society can empower gifted individuals to overcome obstacles and fully utilize their talents.

1. **Raising Awareness and Advocacy:** The first step involves raising awareness of the unique needs and challenges of gifted individuals, dispelling misconceptions, and advocating for tailored support. Engaging educators, parents, employers, and policymakers fosters a collective commitment to an inclusive environment.
2. **Personalized Education and Enrichment:** Addressing diverse learning needs is crucial. Tailored learning, advanced coursework, and acceleration programs keep gifted students engaged and intellectually challenged, ensuring continuous nurturing of their creative problem-solving abilities.
3. **Cultivating a Culture of Innovation:** Employers can create a culture valuing innovation and creative thinking. Open communication and idea exchange support gifted individuals in the workplace. Recognizing and rewarding innovative problem-solving unleashes their full potential.

4. **Building Supportive Communities:** Combatting isolation and fostering belonging through peer groups and mentorship programs empowers gifted individuals. These communities provide emotional support, encouraging them to navigate challenges and embrace their unique identities.
5. **Encouraging Balanced Development:** Promoting well-rounded development prevents undue pressure and burnout. Encouraging diverse interests and social-emotional skill development leads to healthier, more fulfilling lives.
6. **Addressing Equity and Inclusion:** Ensuring equal opportunities for all gifted individuals, including those from underrepresented backgrounds, is essential. Providing resources, mentorship, and creative problem-solving opportunities is crucial. Empowering gifted individuals and fostering a supportive environment involves a multi-faceted approach. These strategies, including raising awareness, personalized education, a culture of innovation, supportive communities, balanced development, and equity and inclusion efforts, enable gifted individuals to embrace their creativity and maximize their problem-solving potential.

Educational and Professional Interventions

To fully support the career development and creative problem-solving potential of gifted individuals, a combination of educational and professional interventions is essential. These interventions aim to optimize the learning environment, provide targeted support, and equip gifted individuals with the skills and resources necessary to thrive in their chosen fields. Educational institutions play a critical role in fostering creative problem-solving abilities among gifted students. By integrating creative problem-solving as an integral component of the curricula, educators can encourage curiosity, critical thinking, and innovative problem-solving (Maker & Schiever, 2019). Interdisciplinary projects, real-world challenges, and opportunities for independent research can help gifted individuals apply their problem-solving abilities beyond the classroom. Additionally, personalized education and enrichment opportunities, such as advanced coursework and acceleration programs, keep gifted students engaged and intellectually challenged, ensuring their creative potential is continually nurtured.

In the professional realm, targeted professional development programs are essential to further enhance the creative problem-solving skills of gifted individuals. Workshops, seminars, and training sessions that focus on divergent thinking, ideation techniques, and problem-solving methodologies can help individuals refine their creative abilities and apply them effectively in their careers (Amabile, 2008). Such initiatives empower gifted professionals to generate innovative solutions and drive positive change within their organizations. Collaborative efforts between academia, businesses, and governments can create a synergistic environment that fosters creative thinking and problem-solving (Sawyer, 2012). Partnerships facilitate the exchange of knowledge, resources, and best practices, enabling the development of programs and policies that support gifted individuals. By leveraging the collective expertise of these stakeholders, innovative approaches to career development and wealth creation can be advanced, benefiting society as a whole.

Mentorship and access to successful role models are instrumental in nurturing the creative problem-solving potential of gifted individuals (Gallagher & Craft, 2018). Mentorship programs connect gifted individuals with experienced professionals who can offer guidance, support, and valuable insights into their chosen fields. Role models demonstrate the possibilities and opportunities that creative problem-solving can unlock, inspiring gifted individuals to pursue ambitious goals and contribute meaningfully to their professions. Flexible learning pathways are essential to accommodate the diverse interests and aspirations of gifted individuals (Subotnik et al., 2011). Offering early college enrollment, self-directed learning opportunities, and internships or experiential learning allows them to tailor their educational journey. By accommodating individual learning preferences and pacing, educational institutions enable gifted individuals to thrive and continually challenge themselves. In addition, establishing research and innovation centers dedicated to exploring cutting-edge ideas and technologies encourages gifted individuals to engage in pioneering work (Robinson, 2014). These centers serve as hubs for collaboration, experimentation, and interdisciplinary problem-solving. By providing access to state-of-the-art resources and a supportive network, such centers amplify the creative impact of gifted individuals and foster an environment of innovation. Hence, by integrating creative problem-solving in educational curricula, providing targeted professional development, fostering collaborations, offering mentorship, enabling flexible learning pathways, and establishing research and innovation centers, society can create a supportive ecosystem that empowers gifted individuals to thrive in their careers and make transformative contributions to their respective fields.

Implication for Educational Psychology

The implications of this study for Educational Psychology are significant. Educational psychologists can play a crucial role in advocating for tailored educational practices that cater to the unique needs of gifted individuals. By addressing misconceptions and stereotypes surrounding giftedness, psychologists can create a more supportive and understanding environment. Offering specialized training and mentorship programs can promote talent development among gifted students. Moreover, supporting the emotional well-being of gifted individuals through counseling and stress management techniques is essential. Collaborating with other professionals and conducting research can further enhance the support system for gifted students. Overall, Educational Psychology can empower gifted individuals to flourish as creative problem-solvers and contribute meaningfully to their personal and professional growth.

Conclusion

Conclusively, the study on the role of creative problem-solving in the career development of gifted individuals highlights the crucial link between their exceptional abilities and the pursuit of meaningful employment opportunities and wealth creation. Understanding the significance of creative problem-solving for gifted individuals empowers educators, parents, and policymakers to design tailored interventions that support their growth and success. By addressing challenges and fostering a nurturing environment, society can unlock the full potential of gifted individuals as innovative problem-solvers, contributing to both personal fulfillment and societal advancement. Embracing and nurturing the creative potential of gifted individuals can lead to a more inclusive and dynamic workforce, driving positive change and innovation in various fields.

Recommendations

Based on the study, the following recommendations were made:

1. Educational institutions should integrate creative problem-solving as a core component of curricula for gifted individuals.-
2. Educators working with gifted individuals should receive specialized training in nurturing creative problem-solving skills.
3. Creating research and innovation centers dedicated to gifted individuals can provide them with access to state-of-the-art resources and a supportive network for exploring cutting-edge ideas.
4. Facilitating mentorship programmes and establishing partnerships with industries can offer gifted individuals invaluable insights into their chosen fields.
5. Educational psychologists and stakeholders should advocate for policy changes that promote talent development and support the unique needs of gifted individuals.
6. Society should recognize and celebrate the contributions of gifted individuals as creative problem-solvers.

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**EFFECT OF JIGSAW INSTRUCTIONAL STRATEGY ON SENIOR
SECONDARY STUDENTS' ACADEMIC ACHIEVEMENT IN
ORGANIC CHEMISTRY IN ENUGU EDUCATION ZONE**

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Abstract

This study investigated the effect of jigsaw instructional strategy in teaching of organic chemistry on senior secondary school students' academic achievement in Enugu Education zone of Enugu State. Two research questions guided the study while three null hypotheses were formulated and tested at 0.05 level of significance. Quasi-experimental research design was adopted for the study. The population for the study was 3,409 Senior Secondary School II (SS II) chemistry students. Purposive random sampling technique was used to draw a sample size of 259 SS II chemistry students. The instrument used for data collection was Organic Chemistry Achievement Test (OCAT) which was developed by the researcher and validated by three research experts. Kuder-Richardson 20 (K-20) formula was used to estimate the reliability of the instrument and a reliability index of 0.79 was obtained. A two-week training session was organized within the schools by the researcher for the regular chemistry teachers. The chemistry teachers for the experimental group used jigsaw instructional strategy while the teachers for the control group used the conventional teaching method. Mean and standard deviation were used for answering the research questions while Analysis of Covariance was used to test the null hypotheses. The findings of the study revealed that students who were taught organic chemistry using jigsaw instructional strategy had improved academic achievement than their counterparts who were taught with the lecture teaching approach. The test of hypotheses also showed that the mean difference in achievement was significant, in favour of the students in the experimental group. Based on the findings, the study recommended among others that the all levels of education should adopt jigsaw instructional strategy because it boosts the participation of students in chemistry, thereby, improving the academic achievement of students in organic chemistry.

Keywords: Jigsaw Instructional Strategy, Academic Achievement, Organic Chemistry

Introduction

Science education has become a crucial avenue for addressing the global challenges faced by Nigeria. Among the various scientific fields, Chemistry holds a significant role due to its universal importance in human progress. The practical knowledge gained in this field has real-world applications that students are likely to encounter in their future endeavours (Jegede, 2012). Chemistry involves the systematic exploration of the properties, composition, structure, and reactions of matter, encompassing all elements of the universe. Its insights contribute to the development of new materials, medicines, and technologies that drive societal progress. The pivotal role of chemistry in national development cannot be emphasized enough. However, the performance of Nigerian students in Chemistry in the Senior School Certificate Examination (SSCE) has consistently fallen short over time. For example, data from the WAEC Chief Examiners' report, as cited by Nwankwo & Okigbo (2021), demonstrates that candidates' Chemistry performance declined from 2017 to 2018.

Despite Chemistry's fundamental position as a foundational science that supports various disciplines and improves the quality of life, the poor performance of Nigerian secondary school students in this subject has remained a persistent concern for many years (Jegede, 2010; Oloyede, 2010). Similarly, these sources indicated that candidates' performance in Chemistry declined from 2017 to 2018, highlighting a drop in students' performance, especially in organic chemistry. Originally centered on the study of compounds found in living organisms, organic chemistry's scope has

expanded to include carbon compounds, excluding simpler ones like carbon oxides, carbonates, cyanides, and cyanates.

Research conducted by Eriba & Samba (2012), Agogo & Ada (2014), and Isa (2018) revealed that science students perceive organic chemistry as abstract and challenging to grasp, leading to comparatively weaker performance in this area. The West African Examination Council (WAEC) reported that examiners consider organic chemistry questions unpopular among students, with only a small number attempting these questions (West African Examination Council, 2016)."

The current method of teaching chemistry in Nigeria, especially in the Enugu Education zone of Enugu State, primarily relies on traditional techniques. These methods involve students memorizing chemistry concepts solely for the purpose of passing exams. According to Yemi, Azid & Ali (2018), this approach has resulted in significant problems in students' final year results in both internal and external examinations. Since chemistry is a subject with practical applications and a hierarchical structure, a strong understanding of prerequisites is essential to support further learning. This deficiency underscores the need for a shift in the way chemistry lessons are delivered, with a focus on creating more engaging and interactive classroom experiences, such as implementing the jigsaw instructional strategy.

The jigsaw instructional strategy is an educational approach that promotes interdependence among students to achieve success. It divides a class into smaller groups and breaks down assignments into segments, which the groups collaborate on to complete the entire task. Jigsaw falls under the category of cooperative learning techniques and relies on group dynamics and social interactions, representing a genuine cooperative learning approach (Sahin, 2010). This strategy entails dividing a larger group into smaller ones that work together to learn about a specific topic, ultimately improving students' academic achievement.

Academic achievement denotes an individual's performance level in academic subjects. Ali (2013), defined it as a measure of a student's success in a particular task within a subject following a learning experience. Chukwu, as cited in Nwanne and Agommuoh (2017), described students' academic achievement as ability to acquire valuable knowledge and effectively communicate it verbally or in written form. Nwankwo & Okigbo (2021), demonstrated that the jigsaw instructional strategy significantly improves achievement and retention scores among SS2 chemistry students more than the traditional teaching method. Yemi, Azid & Ali's (2018), findings indicated that the jigsaw strategy for teaching mathematics is more effective than traditional methods at enhancing academic achievement. Additionally, Chu (2014), conducted research on the application of the jigsaw cooperative method in an Economics course. The study's findings suggested that the use of the jigsaw cooperative learning method has a positive impact on students' academic performance and retention of knowledge. This is evidenced by an increase in average scores and a decrease in score variability.

Additionally, the results revealed disparities in mean scores and score variability between the groups that underwent the teaching method and the control groups during both the initial and final assessments. This outcome aligns with prior research (Sahin, 2010; Chu, 2014; Temesgen & Enunuwe, 2016) indicating that cooperative learning leads to better outcomes compared to traditional teaching methods. Several empirical studies have also highlighted the efficacy of the jigsaw instructional approach, particularly in subjects like mathematics and economics (Lawan, 2016).

Furthermore, gender has been identified as a factor affecting science performance among senior secondary school students. Gender is defined as the characteristic distinguishing individuals based on their biological roles as male or female in terms of reproduction (Abubakar & Uboh, 2010). While Khairulanuar, Nazre, Sairabanu & Norasikin (2010) discovered male students benefiting more, Ajaja & Eravwoke (2010) and Timayi et al (2015) found no impact of gender on academic achievement within cooperative learning. These conflicting results have prompted the consideration of gender as a moderating variable in this study. Consequently, further research is necessary to clarify how the jigsaw instructional strategy affects the academic success of both male and female students. It seems that gender-related variations in student achievement depend on the teaching method employed. This study was undertaken to address this gap, exploring the influence of the jigsaw instructional strategy in teaching organic chemistry on the academic achievement of senior secondary school students in the Enugu Education zone of Enugu State.

Statement of the Problem

The primary issue that drove the researcher to conduct this study is the continuous decrease in academic achievement among chemistry students, particularly in secondary schools within the Enugu Education zone of Enugu, Nigeria. Chemistry stands as a crucial subject essential to meet the growing demand for advancements in science and technology. Therefore, for Nigeria to make strides in

scientific and technological progress, the persistent decline in chemistry performance must be tackled. The concern deepens as to which teaching strategy at the secondary school level could reverse the declining academic performance trend in Chemistry, especially when dealing with Organic Chemistry. Various suggestions have emerged concerning the identification of Science Teaching Methods and Strategies that effectively engage students, leading to improved outcomes in the study of Organic Chemistry. Research has highlighted that the adoption of ineffective teaching methods by chemistry teachers in secondary schools, among other factors, has contributed to the deteriorating performance of students in organic chemistry. This situation calls for the integration of innovative teaching strategies that have demonstrated success in other subjects and countries. One such strategy is the Jigsaw instructional approach, which emphasizes cooperative learning and interaction among students. In contrast, prevailing research reveals that chemistry teachers in Nigerian secondary schools predominantly employ the lecture method for teaching chemistry concepts. This method lacks the collaborative engagement and interaction necessary for effective comprehension and application of abstract and challenging chemistry concepts, as found in the jigsaw instructional strategy. Therefore, the problem of this study is what are the effect of jigsaw instructional strategy in teaching of organic chemistry on senior secondary school students' academic achievement in Enugu Education zone of Enugu State?

Purpose of the Study

The purpose of the study was to investigate the effect of jigsaw instructional strategy in teaching of organic chemistry on senior secondary school students' academic achievement in Enugu Education zone of Enugu State. Specifically, the study investigated the:

1. effect of jigsaw instructional strategy on SS II Chemistry students' academic achievement when taught organic chemistry and those taught the same topic using lecture method;
2. influence of gender (male and female) on Chemistry students' academic achievement when taught organic chemistry using jigsaw instructional strategy.

Research Questions

The following research questions guided the study:

1. What are the mean achievement scores and standard deviations of SS II Chemistry students taught organic chemistry with jigsaw instructional strategy and those taught the same topic using lecture method?
2. What are the mean achievement scores and standard deviations of male and female SS II Chemistry students taught organic chemistry with jigsaw instructional strategy?

Hypotheses

The following hypotheses guided the study and they were tested at 0.05 level of significance:

H₀₁: There is no significant difference between the mean achievement scores and standard deviations of SS II Chemistry students taught organic chemistry using jigsaw instructional strategy and those taught the same topic using lecture method in both pre-test and post-test.

H₀₂: There is no significant difference between the mean achievement scores and standard deviations of male and female SS II Chemistry students taught organic chemistry with jigsaw instructional strategy.

H₀₃: There is no significant interaction effect of gender and jigsaw instructional strategy on students' academic achievement in organic chemistry.

Research Method

This study adopted a quasi-experimental design referred to as pre-test, posttest non randomized control group design. Nworgu (2015), defined quasi-experimental research design as one which random assignment of subjects to experiment and control groups is not possible. According to Uzoagulu (2011) this design is often used in classroom experiment, when experiment and control groups are assembled as intact classes and no possibility of randomization. The reason for the choice of this design is because it is not possible for the researcher to randomly assign subjects to the treatment group and control group without disrupting the academic programmes of the school involved in the study (Gambari, Falode and Adegbenro, 2014). The population for the study was 3,409 Senior Secondary School II (SS II) chemistry students. Purposive random sampling technique was used to draw a sample size of 259 SS II chemistry students. Therefore, this study comprised 162

students in the experimental group (88 males and 74 females) and 97 students in the control group. The instrument used for data collection was Organic Chemistry Achievement Test (OCAT) which was developed by the researcher and validated by three research experts. Two of the experts are from the Department of Science Education while one is from Measurement and Evaluation unit of the Department of Mathematics and Computer Education, all from Faculty of Education, Enugu State University of Science and Technology.

Kuder-Richardson 20 (K-20) formula was used to estimate the reliability of the instrument and a reliability index of 0.79 was obtained. A one week intensive briefing for the teachers was conducted by the researcher. Four teachers were briefed before the treatment. The teachers were given detailed explanation on the use of jigsaw instructional strategy and other research expectation. Before the onset of the experiment, subjects in both the treatment and the control groups were given a pretest on OCAT. After the pretest, the experimental group was taught using the OCAT while the control group was taught using lecture method. The research questions were answered using mean and standard deviation. The choice of mean is because it is the most reliable measure of central tendency (Uzoagulu, 2011). Also, standard deviation was used because it shows how the scores are spread from the mean. Analysis of covariance (ANCOVA) was used in testing the hypotheses at .05 level of significance. The choice for the use of ANCOVA is because intact classes were used and initial differences cannot be guaranteed. The null hypothesis was rejected if probability value is less than or equal to the significant value of 0.05 ($P \leq 0.05$) and if otherwise ($P > 0.05$), it was not rejected.

Data Analysis and Results

Research Question 1: What are the mean achievement scores and standard deviations of SS II Chemistry students taught organic chemistry with jigsaw instructional strategy and those taught the same topic using lecture method?

Table 1: Mean achievement scores and standard deviations of students taught organic chemistry with jigsaw instructional strategy and those taught using lecture method

Table	Groups	Number	Pre-test		Post-test		Mean Gain	1
			Mean (\bar{x})	Standard Deviation (s)	Mean (\bar{x})	Standard Deviation (s)		
	Experimental	162	38.41	13.30	46.11	16.42	7.7	
	Control	97	33.31	12.22	38.48	13.51	5.17	
	Mean Diff.						2.53	

shows that the mean achievement scores of students taught with jigsaw instructional strategy is higher than those taught using the lecture teaching method because the gain in mean of 7.7 for the experimental group is greater than 5.17 gain in mean for the control group. The mean difference is 2.53 in favour of experimental group.

Research Question 2: What are the mean achievement scores and standard deviations of male and female SS II Chemistry students taught organic chemistry with jigsaw instructional strategy?

Table 2: Mean achievement scores and standard deviations of male and female students taught organic chemistry using jigsaw instructional strategy

Gender	Number	Pre-test		Post-test		Mean Gain
		Mean (\bar{x})	Standard Deviation (s)	Mean (\bar{x})	Standard Deviation (s)	
Male	88	37.89	14.19	43.39	17.44	5.50
Female	74	35.42	12.91	39.46	15.51	4.04
Mean Diff.						1.46

Table 2 shows that the mean achievement scores of male students taught with jigsaw instructional strategy is higher than that of their female counterparts because the gain in mean of 5.5 for the male students is greater than 4.404 gained in mean for the female students. The mean difference is 1.46 in favour of male students.

H₀₁: There is no significant difference between the mean achievement scores and standard deviations of SS II Chemistry students taught organic chemistry using jigsaw instructional strategy and those taught the same topic using lecture method in both pre-test and post-test.

Table 3: Analysis of Covariance on the mean achievement scores of Chemistry students taught organic chemistry using jigsaw instructional strategy and those taught using lecture method

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Decision
Corrected Model	1019.101	2	509.551	48.091	.000	Rejected
Intercept	3091.132	1	3091.132	108.091	.000	
Pretest	545.091	1	545.091			
GROUP	509.911	1	509.911	18.781	.000	
Error	277.098	256	.899	102.801	.080	
Total	29011.011	259				
Corrected Total	68991.091	259				

R Squared = .992 (Adjusted R Squared = .991)

Table 3 revealed that $F(1, 362) = 18.781$; $p = 0.000 < 0.05$. The null hypothesis is rejected meaning that there is significant difference between the mean achievement scores of students in experimental and control groups in favour of experimental group.

H₀₂: There is no significant difference between the mean achievement scores and standard deviations of male and female SS II Chemistry students taught organic chemistry with jigsaw instructional strategy.

Table 4: Analysis of Covariance on the mean achievement scores of male and female Chemistry students taught organic chemistry using jigsaw instructional strategy

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Decision
Corrected Model	204.20	2	102.10	29.014	.000	Rejected
Intercept	10452.9	1	10452.90	21.091	.000	
Pretest	6311.501	1	6311.501			
GENDER	132.10	1	132.10	37.410	.000	
Error	5905.90	159	144.041	16.581	.071	
Total	135597.00	162				
Corrected Total	6137.12	161				

a. R Squared = .231 (Adjusted R Squared = .222)

Table 4 revealed that $F(1, 195) = 37.410$; $p = 0.000 < 0.05$. The null hypothesis is rejected meaning that there is a significant difference between the mean achievement scores of male and female students in favour of male students.

H₀₃: There is no significant interaction effect of gender and jigsaw instructional strategy on students' academic achievement in organic chemistry.

Table 5: Analysis of Covariance on the interaction effect of gender and method (jigsaw instructional strategy) on Chemistry students' achievement in organic chemistry

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Decision
Corrected Model	114.668 ^a	2	57.334	62.41	.000	
Intercept	6096.981	1	6096.981	1133.92	.000	
METHOD*GENDER	114.668	1	114.668	62.41	.009	Rejected
Error	76910.284	256	24.20			
Total	83105.891	259				
Corrected Total	78911.091	259				

Table 5 revealed that $F(1, 358) = 62.41$; $p = 0.009 < 0.05$. The null hypothesis is rejected meaning that there is an interaction effect between methods and gender in students' academic achievement scores.

Discussion of Findings

The finding of the study showed that students taught organic chemistry with jigsaw instructional strategy had improved achievement more than those taught using lecture method. This finding agreed with that of Nwankwo & Okigbo (2021), who posited that jigsaw instructional strategy significantly enhanced achievement of SS2 students in chemistry more than the conventional teaching method. The finding of this study agreed with the finding of Mari & Sani (2015) that the use of cooperative learning strategy has significant effect on the academic achievement of formal 'reasoners' more than that of the concrete 'reasoners'. Furthermore, this finding also supported the finding of Onuocha, Eneogu, Asogwa & Ngwuchukwu (2016) that the use of jigsaw instructional strategy and conventional teaching method for teaching social studies in junior secondary schools when compared to the conventional teaching method is significantly different. This means that students achieved meaningfully in chemistry as a result of the Jigsaw instructional strategy and that the method was adequate for the instruction process.

Conclusion

This study showed that jigsaw instructional strategy helped to improve students' academic achievement in organic chemistry than students taught using the lecture method. From the comparative analysis between the Experimental Group and Control Group on the pre-test and post-test, it was observed that before the treatment, the pretest mean scores and the standard deviation of scores of the control and treatment groups were close to each other. However, after the treatment was conducted students from the treatment groups showed better achievement than those who have learned with lecture method.

Recommendations

Based on the findings, the following recommendations were proffered:

1. The Ministry of Education should mandate all levels of education to adopt jigsaw instructional strategy because it boosts the participation of students in chemistry, thereby, improving the academic achievement of students in organic chemistry.
2. Chemistry teachers should use Jigsaw instructional strategy in teaching chemistry in order to enhance positive attitude to improve the academic achievement of the students in secondary schools.

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**STUDENTS' PERCEPTION OF SELF-EMPLOYABLE SKILLS TO BE
INTEGRATED IN HIGHER EDUCATION IN ENUGU METROPOLIS,
ENUGU STATE, NIGERIA**

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Abstract

Nigeria is bedeviled by a lot of challenges of which unemployment is key, because it leads to other social vices, such as drug abuse, insecurity, prostitution, armed robbery to mention but a few. Quality and inclusive education that is efficiently implemented contributes to the reduction of these problems. Effective implementation of education programs requires employment of interdisciplinary approaches to expose the learners to all the domains of knowledge: intellectual, human and practical skills. Nigeria produces qualified graduates who are knowledgeable in their different disciplines, but lack skills that promote self-employment. At graduation, they look for white-collar jobs from the government, which are limited today. Cross sectional survey was carried out in three higher education institutions in Enugu metropolis, South-East geopolitical zone, Nigeria. A validated questionnaire constructed on a 4-point scale, containing 15 items was administered to 98 students from the population of 5,768 final year students in three HE institutions in the area of the study at 10% precision representing the federal, state and private owned institutions, to identify the kind of skills they needed to become self-reliant at graduation. Two research questions guided the study. The data collected were analyzed through Mean and Standard Deviation. The results showed that the needed skills were in garment sewing, costume and fashion design, financial accounting and book keeping, development of business plan, event planning, proposal and grant writing, management skill, among others. It is recommended that HE institutions in Enugu metropolis should integrate these skills in their different programs to make the graduates self-employable and reduce unemployment in Nigeria.

Keywords: Skill development, 4Cs, Self-employment, Higher education, Poverty reduction and Sustainability.

Introduction

Self employable skills are types of capacity to perform tasks by individuals. The capacity to perform tasks shows the functionality of the individual when engaged to carry out duties in that field. This is an area that needs development in higher education. It is one of the areas that higher education's students will have added value to their livelihood upon graduation. The skills vary in nature and are so diverse that acquisition of one or more of these skills to the degree that one gets from the institution will be making graduates better placed in the society to earn a living without depending on the government for employment creation. It is noteworthy that acquisition of knowledge, skills and abilities will make graduates more likely to be successful in any chosen wealth generating occupation. For the link to be close in getting the best through higher education, teachers, employers and the state could be in collaboration for effective teaching and training (Sodipo, 2014).

Self-employable skill development programmes during the higher education coursework aimed at promoting the employability of the graduates and exposure to the students on how to practically carry out some tasks will be an area of interest to reduce unemployment after graduation. This will prepare them for the future when they graduate to improve themselves since students who have undergone one skill programmes or the other are more confident when they live school for self-reliance.

The ability of the teacher to deliver in the classroom using practice to illustrate theory is important. The European Commission cited in Ogbuagu and Akubue (2017), asserts that series of

learning outcomes that address the need for European-wide perspectives on how such learning should be evaluated and highlighted the need for teacher development at all levels, seems to be a welcome development in that the teacher will deliver both in theory and practice for the students to be equipped with both knowledge and skill. Falola, Ibidumni, Salau and Ojo (2016), report that skill attraction and acquisition have effects on the teaching outcomes. Self-employable skill acquisition or development in higher education is geared towards the production of the educated man who can effectively with his head, heart and hands produce goods and services towards the development of the economy (Akpotohwo, 2017).

There are phases of skill acquisition, starting from novice, to advanced beginner, to competent, to proficient, to expert, to mastery and finally to practical wisdom. These self-employable skills include garment construction, laundry work, costume and fashion design, financial accounting and book keeping, development of business plan, Information Communication Technologies (ICT) skill, critical skill, grant writing skill, management skill, communication skill, planning abilities, practical skill and entrepreneurial and creativity skill and others (Adebisi, 2014). It is obvious that if one acquires necessary skills and enough level of knowledge, the doors to the opportunity of having good job and decent salary will never be closed. Skill one acquires determines the quality of life one lives. It opens new opportunities, which is the reason students should be exposed to learn skills to add to the profession they have gone in to learn in higher education. These opportunities could help to minimize unemployment in Nigeria.

There are many graduates who do not have jobs upon graduation. The unemployment situation has placed some youths in many anti-social behaviour that affect the society negatively. Unemployment is a situation where people are willing and capable of working but are unable to find paid employment (Fajana, 2000). The high number of unemployed graduates in the country is becoming unbearable by the day and this is not unconnected with the fact that many tertiary institutions' graduates are without employable skills (Adebisi, 2014). There are serious cases of unemployment in Nigeria that its rate which is measured as a percentage by dividing the number of unemployed individuals by all individuals currently in the labour force. The more the unemployment rate in any economy, the more the poverty level which exacerbates the welfare challenges. Therefore, this study tends to determine various Self-employable skills that higher education students in Enugu metropolis would like to develop for employment generation.

Statement of the Problems

The employability of Nigeria higher education's graduates has been seen as a result of poor skill acquisition from the institutions. Employers have shown dissatisfaction with the quality of graduates coming into the labour market. Employers need flexible, adaptable workforce so that employees can assist in running their companies to become progressive in the changing market environment. This does not mean that the new employees will be able to perform immediately without on-the-job training, but it is argued that they need to possess a capability to acquire the skills that facilitate and promote employment opportunities which the Nigerian graduates lack. There has been a general impression that most graduates though professionally or technically qualified are unemployable, in that they lack the requisite, essential skills or competencies needed in the job for progressive employment. Lack of these skills create huge gap in their knowledge which must be filled to make them acceptable and competitive in the few existing vacancies that comes up once in a while.

It could even be lack of desire to learn something new and improve on the current knowledge. The challenge is that most graduates are moving about without jobs in Enugu state as well as in other states of Nigeria. This has been associated with some social vices like stealing, kidnapping and other crimes in Enugu state. With this it will be an additional value to find out the self-employable skills higher education in Enugu state will develop to enable them engage themselves in job established by government or other organizations or skills that will assist them start up their own jobs with little savings or little loans.

There are high rate of unemployment in Nigeria. This is noted in the National Bureau of Statistics (2018), which reports that the economically active or working age population (15 – 64 years of age) increased from 111.1 million in Q3, 2017 to 115.5 million in Q3, 2018. The same report presents that the number of persons in the labour force (i.e. people who are able and willing to work increased from 75.94 million in Q3 2015 to 80.66 million in Q3 2016 to 85.1 million in Q3, 2017 to 90.5 million in Q3, 2018. Nigeria's unemployment rate at 23.1 percent of the work force in the third quarter, up from 18.1 percent a year earlier, in December 2018 is not good for the economy (Kale, 2018). The high unemployment rate of 23.1 percent and underemployment of 16.6 percent by the National Bureau Statistics (NBS) of 2019 report is alarming. It has been noted that by 2020 the

Nigeria's unemployment rate will be 33.5% (Nsikak, 2019). This signifies that the unemployment rate in Nigeria has continued to increase and calls for attention since it is a serious indicator of underdevelopment.

These could be as a result of poor skills acquired during the schooling period which hinders most graduates from having expected knowledge for job creation without waiting for white collar jobs. Since there are little or no jobs from the state for graduates and the population growth is high, without corresponding skills to engage the citizens the unemployment rate will continue to grow. NBS (2019) reported that Katsina state; Jigawa, Kaduna and Yobe states recorded the highest underemployment rates of 39.5, 38.1, 31.0 and 30.0 percent; that between third quarter, 2017 and third quarter of 2018, only nine states recorded a reduction in their unemployment rates despite an increase in the national unemployment rate. The states include: Akwa Ibom, Enugu, Imo, Kaduna, Kogi, Lagos, Nasarawa, Ondo and Rivers. These states equally recorded reduction in their combined unemployment and underemployment rates. The report said six states recorded the highest gains in net full time employment between third quarter, 2017 and second quarter, 2018. The states were Lagos adding 740,146 net full time jobs, Rivers (235,438), Imo (197,147), Ondo (142,514), Enugu (122,333), and Kaduna with 118,929 jobs. However, these state's effort had not reduced the national picture of the unemployment status.

The unemployment and underemployment exist in Nigeria. These are situations where one is willing to work but sees no work to do and where one picks a job that is less than the actual job for ones' qualification. Hence, NBS (2019), reports that unemployment and underemployment rates vary across states due to the nature of economic activity predominant in each State. Many unemployed graduates in Nigeria in general and in Enugu state specifically are faced with the challenge of the education system and lack of skills. These skills will go a long way in reducing the rate of unemployment in the state as well as improve their welfare.

Purpose of the Study

This study aims at identifying the self-employable skills that higher education needs to develop in students in Enugu Metropolis. This study exposes the types of self-employable skills that students should have before graduating to equip them for personal employment or to be employed by an organization or the state.

Specific Objective of the Study

1. To examine the skills that students of higher education in Enugu metropolis need to develop to promote employment generation.

Research Questions

1. What are the skills that students in higher education owned by public, state and private institutions need for employment generation?

Hypothesis: There is no significant difference in the skills students in higher education owned by public, state and private institutions need for employment generation

Concepts

Skill and skill development

Skill is capacity to perform a given task. This shows that skill implies expertness, practiced capability in taking up tasks with ease and accuracy. It is the ability to perform expertly and facility in performance. Skill therefore is the end product of the training given to a student or an employee to make him/her perform more expertly and easily on a job by using effective knowledge for efficient performance. A skill is an ability to perform a productive task at certain level of competence (Ogbuagu and Akubue, 2017). Mark and Christopher cited in Ogbuagu and Akubue (2017), posit that as a skill is associated with a particular task, a person who does not possess such a skill is unlikely to carry out such a task or will be less productive than somebody who possess the skill. Skills are what an individual possesses which may be learnt formally, informally and /or on the job.

Skill is an arranged sequence of activities and it is usually displayed in a flexible and systematic ways. Here flexibility means the ability to free oneself from rigidity of attitude and procedure associated with pre-conceived tradition. Skill is the capacity of accomplishing a task with precision, practical knowledge in combination with ability, cleverness and expertness. This includes having performance capacity from skill learnt with practice. Therefore, skill development is the

process of acquiring the ability to perform an activity that is related to some meaningful actions, works or jobs (Akpotohwo, Jaja, Igonibe, and Ogeibiri, 2017). Developing certain skills involves thinking, acting and behaving in a specific activity in such a way that the process becomes natural to the individual engaging in constant practice. Individual that opts for skill development should among other qualities, have interest, ability, aptitude, patience, personal character that will enable the individual succeed in the selected skills.

Individuals can have skills that will enable them function well as a person as well as to the benefit of the society. The ability to function well can be inculcated in persons from training in the school. It is noted that individuals could be trained based on the ability of the individual to learn any skill (Kembe, 2014). Skill development is important when there is efficiency and effectiveness in the current technology and methods involved in the processes. The use of obsolete technology or processes would not be yielding better results since it leads to waste of money and time. Development of skill is essential for the development of the hidden potentials in an individual (Smith-Robbins, 2011). It is seen as a political tool since it enhances individual and national greatness, the behavior of an individuals in any nation influences the skills developed by such nation (Sodipo, 2014). This suggests that the skills possessed by individuals in any society establish the attitudes that abound in that society and the life-long career. These have influence on the social values. Establishment of skills will promote happiness, love, labour and technology that will reduce poverty in such society. The development of skills is as good as the development of knowledge. It is noted that all skills are dependent on some form of knowledge and not all knowledge is in form of skill. Therefore, skill could be seen as manifestation of the acquired knowledge. Skill is a described as knowledge that is transformed into activity.

Graduates are expected to exhibit certain attributes such as quality in their fields of specializations, skills and understanding. Graduates are expected to be proactive, have creative and discerning ability, ability to convert any situation to opportunity and ability to solve problems in creative manners. However, employers of labour are interested in graduates with certain skills such as communication skills, empathy, motivation, decision making abilities, planning abilities and improvisation abilities as well as good behavior (Hassan, Ismail, Ahmad, Zaini, Hassan & Maisham, 2011). The technical skills required from graduates vary according to their disciplines. While behavioral qualities are similar to those expected from graduates by employers of other industries, the technical qualities possessed by, for instance, quantity surveying graduates are more specific to the profession, such as measurement and skills and knowledge related to project variation, contract administration, post-tender activities, estimating and costing (Hassan et al, 2011). More so, self-employable skill acquisition will help the graduates to form a base of knowledge about the function and operation of a business and develop some level of familiarity and comfort with business environment such as technological changes and the micro enterprises. It will offer graduates job experience and for earning, savings and investing money at earlier stage of life than their abilities giving them feeling of self-worth. It will be complementary in developing the professional knowledge, and practical knowledge transfer between the lecturers and the students. It will practically reduce high rate of unemployment among graduates, positioning them to self-employment and business ownership which will give them more sense of responsibility.

Clothing and textile skills are another area that aims at helping learners acquire knowledge, skill and techniques for meeting personal and societal clothing needs. Clothing and textile borders on fiber and fabric in garment making, effective garment construction, clothing and maintenance services, simple decorative processes, modeling education and information communication Technology in clothing and textiles (Kembe, 2014). These skills could position many graduates better in the society when they come out from school. These could earn them good jobs that will contribute to poverty reduction and employment generation.

Other areas include financial accounting and book keeping. Here the students are taught how to keep transaction records. This skill will enable the person to track records in any business one finds him herself. The financial records helps to check the progress of the business. It will enable the owner to see if he /she is making profit or not once the records are kept appropriately.

Development of Business plan is another area one can have skill. Here the individual has the ability to do market survey to know how, where, and who needs the business in question. The location and the logistics needed for the business is studied before embarking on the business. If these environmental factors and the resources needed are not well researched on, the business will fail. So, the acquisition of such skill will help individuals to position themselves for such job.

Employment generation

Employment generation is one of the objectives in any developing economy, which is creation of jobs to engage people in productive activities that will generate wealth. The challenges of employment are closely interlinked with the eradication of poverty. Unemployment in Nigeria is mostly structural. The rate of unemployment is different in different states. Sector wise unemployment in Nigeria is rural and urban unemployment. Urban unemployment includes industrial unemployment and educated unemployment. There are seasonal, structural, frictional, technological, voluntary and disguised unemployment (Naraja and Manisha, 2016). Educated unemployment has been one of the major unemployment in Nigeria (Taiga, Alih & Onuorah, 2019). It is mainly linked to the defective educational system. To generate employment then the educational system needs to be strengthened for the citizens to come out with one or more skills to create employment for themselves, or to be employable to work for the state or individual organizations. Generating employment is one of the economic plans that will enhance development of any economy. Employment generation will promote productivity as well as reduce poverty; these will improve the standard of living of the people to a large extent. The teachers should employ the 4Cs (Collaboration, Communication, Creativity and Critical thinking) in the implementation of the programs) to make their products learning sustainable (Raitskaya & Tikhonova, 2019).

Theoretical literature

Skill development theory, 2009

The theory for aiding the development of skills as proposed by Romiszowski in 2009. It states that skill is the capacity to perform a given type of task or activity with a given degree of effectiveness, efficiency, speed or other means of quantity or quality. It distinguishes between intellectual skills which involve the mind, motor, sensor motor, or psychomotor skills which involve the body, personal skills which involves emotions and interpersonal skills, that which involves interacting with others. It indicates that skill is distinct from knowledge, in that it develops with experience and practice, but that knowledge is something you either have or do not have. The theory says that skills exist as a continuum of complexity from reproductive to productive and stating that reproductive skills are those which are focused on applying standard procedures or automated processes, such as multiplying numbers or typing. However, those productive skills involve applying principles and strategies, for instance, creative writing or playing chess. Romiszowski shows that whether a skill is reproductive or productive, that it has greater influence on the selection and design of instructional strategy than if a skill is intellectual, motor, personal or interpersonal. The theory states that there are both closed and open responses in the skill cycle. Closed responses involve a static environment, one that does not change with the activity of skilled practice within the space while open responses involve dynamic environment where the performer must constantly adjust his or her performance based on variables within the environment. In the skills cycle, open responses are more in that environmental stimuli affect the decision-making and behavior of the learner/performer. The learner perceives the stimulus, recalls prerequisites based on his or her perceptions, plans for behavior which affects the environment. The theory states that there are instructional tactics for specific situations. These situations will necessitate variations in the best instructional tactics to be used. These are in four categories; information provided including explanation, demonstration and guidance, Practice including the frequency and spacing, feedback including frequency, form, quality, as well as transfer and generalization. This theory is related to this study because getting skills help the capacity of an individual to perform a given task effectively.

Bandura's Social Learning Theory, 1961

Bandura, Ross and Ross (1961), states three core concepts of social learning theory. These are; people can learn through observation, mental states are an essential part of the learning process and that it will not necessarily result in a change of behavior. He studied children observing an adult acting aggressively towards a doll. When these children were later allowed to play with the doll, they imitated the aggressive actions they had previously observed. Bandura identified three basic models of observational learning. A live model that involves an actual individual demonstrating or acting out a behavior, a verbal instructional model which involves descriptions and explanations of a behavior and a symbolic model, that involves real or fictional characters displaying behaviors such as in books, films, television programs or online media. This theory supports the study because the theory is about how people can learn through observation. The use of mental states are an essential part of the learning process which the study advocates.

Transfer of learning theory, 2000

The theory is propounded by Galligan in 2000. He suggests that the transfer of learning can take place in these ways:

Skill to skill; where a skill developed in one sport has an influence on a skill in another sport. When there is influence on a new skill being developed then this is said to be proactive and if the influence is on a previously learned skill then this is said to be retroactive.

Theory to practice; meaning that, there is a transfer of theoretical skills into practical skill. Training to competition, there is the transfer of skills developed in training into the competition situation. There are effects of transfer of learning; these include negative effects; where a skill developed in one sport hinders the performance of a skill in another sport.

Zero effects; where a skill in one sport has no impact on the learning of a new sport, *Positive effects*; where a skill developed in one sport helps the performance of a skill in another sport. Direct effects; where a skill can be taken directly from sport to another

. *Bilateral effects*; where there is transfer of a skill from the side of the body to the other for instance use of left and right.

Unequal effects; when a skill developed in one sport helps another sport more than the reverse. The theory is related to the study because the skills to be learnt are to be given by teachers who already have the skills. That is, using transfer of skill from one person to the other person.

Skill development theory, Bandura's social learning theory and Transfer of learning theory are related to the study since these theories are expressing the transfer of knowledge to skill for the individual to practice what was learnt.

Methodology

The study was carried out using survey research design. Allan (2016) explained that survey research design is a technique of establishing opinions on an issue of the day, attitude towards more basic issues and facts about the people being sampled. This study aims at identifying the self-employable skills that higher education needs to develop in students in Enugu Metropolis. This study exposes the types of self-employable skills that students should have before graduating to equip them for personal employment or to be employed by an organization or the state. The selected tertiary institutions in Enugu metropolis are University of Nigeria, Enugu Campus (UNEC), Enugu State University of Technology (ESUT) and Godfrey Okoye University (GO) representing the federal, state and private owned tertiary institutions. Total population of the final year students in (UNEC) was 2572, ESUT was 2832 and GO was 364, total population of the study was 5,768. Using Eboh (2006) the sample size determination at 10% precision is 98. This number was proportionally represented in each institution, UNEC was 44, ESUT was 48 and GO was 6, using simple random sampling technique. These final year students in 2017/18 were randomly selected and administered a structured questionnaire. The questionnaire titled Skills for Students of Higher Education (SSHE) was validated and reliability test carried out using Chronbach's Alpha which gave a coefficient of 0.85.

Data collected were analyzed using mean scores and standard deviation to determine the level at which each item on the questionnaire affected the variable under study. Five likert scale was used and the values assigned were distributed into strongly agree, (SA), Agree (A), Disagree (D), Strongly Disagree (SD), and Undecided (UD). Any item that is less than 3.0 was regarded as rejected and any item with 3.0 and above was accepted. The results of data were analyzed using mean, standard deviation. The hypothesis was analyzed using t-test statistics at 0.05 level of significance.

Results

Table 1: Skills that students of higher education owned by public, state and private institutions need for employment generation

SN	Skills to be developed in the students	SA 5	A 4	D 3	SD 2	UD 1	Total	Mean	SD	Decision
1	Garment sewing	49	49	0	0	0	441	4.42	0.45	Accept
2	Laundry work	54	44	0	0	0	446	4.46	0.47	Accept
3	Costume and fashion design	60	38	0	0	0	452	4.52	0.49	Accept
4	Fixing of hair	50	48	0	0	0	442	4.42	0.45	Accept
5	Financial accounting and book keeping	47	51	0	0	0	439	4.39	0.56	Accept
6	Development of business plan	45	53	0	0	0	437	4.37	0.46	Accept
7	Information communication Technologies	50	46	0	2	0	434	4.34	0.46	Accept
8	Critical thinking Skill	40	36	0	12	10	378	3.78	0.57	Accept
9	Proposal and grant writing skills	61	32	0	0	5	438	4.38	0.46	Accept
10	Management Skill	50	48	0	0	0	442	4.42	0.47	Accept
11	Communication skill	40	36	0	12	10	378	3.78	0.57	Accept
12	Entrepreneurial skill	60	38	0	0	0	452	4.52	0.49	Accept
13	Event planning skill	50	48	0	0	0	442	4.42	0.47	Accept
14	Painting	60	38	0	0	0	452	4.52	0.49	Accept
15	Beading	45	53	0	0	0	437	4.37	0.46	Accept

The acceptance value for this study was 3.0. Therefore, mean response equal to or above 3.0 shows that the respondents accepted the item but any mean value below 3.0 signifies rejection of the items by the respondents. Table 1.0 above depicts that items 1 to 15 were accepted since the mean values were greater than 3.0. This result suggests that students of higher education in Enugu metropolis will like to acquire these self-employable skills while in school.

Table 2: Test of hypothesis :There is no significant difference in the skills students in higher education owned by public, state and private institutions need for employment generation

Variables	N	Mean	SD	Df	t-cal	t-crit	H0 ₁
Public	2572	4.20	0.45	73	-0.101	1.96	Rejected
State	2832	3.78	0.57				
Private	364	4.42	0.47				

In table 2, it was revealed that t-calculated (-0.101) was less than the t-critical (1.96) at 73 degree of freedom (df) and at 0.05 level of significance. The null hypothesis of no significant difference between in the skills students in higher education owned by public, state and private institutions need for employment generation was rejected. That is, the alternate hypothesis is accepted.

Discussion

The study showed that there are many skills that higher education as categorized by the Public, State and Private Higher Institutions could incorporate in the curriculum for the students at some point in the course of their degree courses. These skills will accelerate job creation and wealth generation not only by the graduates but also by others that these groups of graduates could employ. Engaging in such skills will go a long way in reducing some social vices that are being engaged by some unemployed individuals in the society. Having a skill or more than one skill will occupy any graduate to generate income that could be saved to enhance more investments. This is in agreement with the study of Ukwueze (2011), who found out that Students Industrial Work Experience Scheme (SIWES) helps higher education Institutions to develop practical and employability skills in students. If many graduates that come out from higher education graduates with any or more of these skills, then there will be massive self-engagement of graduates even if it is at micro level of enterprise or service delivery. This is supported by the studies of Adebisi (2014), Falola *et al;* (2016), that skill development and utilization will have significant effect on teaching of the higher education students and their employability when they graduate. The study of Akpotohwo *et al;* (2017) supports the argument that the content of skill vocational programme in the Nigerian higher education should be made more practical than theory in order for the graduates to be self-employed rather than seeking for white collar jobs. This study is in line with the study of Onuma (2016), that reports that entrepreneurial skill is relevant to students with regard to equipping them with skills for post-graduation job creation potentials rather than job seekers. Therefore, acquisition of these skills and

practicing them after graduation will reduce the rate at which the unemployment grows in the state and many hands will be engaged in the provision of goods and services which will contribute to the growth of the economy. The finding of the Test of hypothesis revealed that there are skills students in higher education owned by public, state and private institutions need for employment generation.

Conclusion

The study has shown that skill acquisition during the course of study in the tertiary institution will be an added advantage to the students when they graduate. There are a wide range of -self -employable skills that could be taught in higher education for students to be engaged in production or service sector when they graduate. These include garment sewing, laundry work, costume and fashion design, fixing of hair, financial accounting and book keeping as well as development of business plan among others. These engagements will reduce unemployment rate and promote poverty reduction if graduates are supported to start up micro businesses.

Recommendations

Higher education authorities in Enugu metropolis should ensure that practical skills are taught to the students irrespective of their discipline.

Higher education authorities should expose the students to varieties of the skills for them to have interest and competence in one or more of the skills before graduation.

Students in higher education should participate actively in skill development to enable them come out with employable skills.

Lecturers should deliver lectures and allow the students space for practical demonstrations for the knowledge to be part of the students not only to pass the examinations.

Practical materials should be provided by the school authorities to support the lecturers in the various areas for practical demonstration.

Qualified lecturers should be engaged by the school authorities to deliver some of these self-employable skills practically for the students to internalize them for their future use.

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**EFFECT OF JIGSAW AND TEAM PAIR-SOLO OF COOPERATIVE
LEARNING STRATEGIES ON ACHIEVEMENT IN BASIC SCIENCE
OF STUDENTS WITH VISUAL IMPAIRMENT**

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Abstract

This study sought to investigate the effect of Jigsaw and Team pair-solo Cooperative learning strategies on achievement in Basic Science of junior secondary school students with visual impairment. Three research questions and three null hypotheses were generated to guide this study. The design of the study was quasi-experimental design. Specifically, the study employed the pre-test, post-test control group design involving two experimental groups and one control group. The population of the study consisted of all 35 visually impaired Junior Secondary School two (JSS II) students who were also used as the study sample. The instrument used for data collection was Basic Science Achievement Test (BSAT). Mean and Standard deviation were used to answer research questions while Analysis of Covariance (ANCOVA) was used to analyze the hypotheses. The results of the study revealed that students with visual impairment exposed to Jigsaw and Team pair-solo cooperative learning strategies achieved better than those exposed to conventional strategy in Basic Science. Gender had no significant effect on the achievement of students with visual impairment in Basic Science. Based on the findings, recommendations were made; which among others include that teachers should make teaching and learning studentscentred which will give learners, especially the students with visual impairment, the opportunity to participate effectively in teaching and learning activities in basic science in their various schools.

Keywords: Jigsaw, Team Cooperative learning, visual impairment, pair-solo, achievement, Basic science

Introduction

In today's world it is almost impossible to live without science, since it is used in all aspects of human life. Information got through science is applicable to all areas of human endeavours and existence. This can be explained by the enormous scientific inventions which have been applied in communication, transportation, food production, computer, and construction of roads to mention but a few. Igboanugo (2013) posited that the nation's development has been enhanced rapidly in areas of agriculture, medicine, telecommunication, entertainment and power system due to the advancement in Science and Technology. Scientific role to individuals as well as its fundamental development in economic and technological growth of nations cannot be over emphasized. For a nation to experience economic growth there must be a strong stimulation of science and without this it becomes difficult for an individual or a society to survive and compete effectively in science and technology. Sciencehelps to equip an individual with basic qualities such as curiosity, objectivity, initiative and honesty required for survival and development of the society. As a result of this, students are encouraged early in life to study science irrespective of their life challenges.

Science is a systematic and logical approach to discovering how things in the universe work (Bradford and Hamer 2022).The authors also saw science as the body of knowledge accumulated through discoveries about all the things in the universe.To the researchers, Science is a systematic process of obtaining verifiable knowledge about the environment through careful observation and experimentation for the acquisition of desirable skills that will help individuals and nations to survive.Science is studied at primary school and junior secondary school (JS1-3) levels as Basic Science while at senior secondary school and tertiary institution levels; it is studied as biology, chemistry and physics.

Basic Science which is the focus of this study is a subject of study that draws its content and concepts from all the major disciplines in Science such as life science (biology), physical sciences (chemistry and physics) and earth sciences (Geography and Agricultural science). Nigeria Educational Research and Development Council ([NERDC], 2007). The NERDC maintained that the general objective of Basic Science is to enable students observe and explore their environment using their senses. Basic Science formerly known as integrated science is the form of science a child encounters at the primary and secondary school level for the study of core science subjects at the senior secondary school level (Bukunola and Idowu 2012) Basic Science in the context of this study therefore, can be defined as a subject of learning that gives the fundamental knowledge and skills about the universe as a whole or in parts which draw its content from Biology, Chemistry, Physics, Geography and Agricultural Science.

Basic Science represents the foundation stone for subsequent teaching and learning of science subjects. Ibe (2010) posits that Basic Science prepares students at junior secondary school level for the study of core science subjects (physics, chemistry and biology) at the senior secondary school level. Basic Science has been made one of the compulsory subjects for all students both at primary and junior secondary school levels. It is an attempt to ensure proper teaching of Basic science at these levels of education that the Federal Government of Nigeria in 2007 under the Millennium Development Goals Project organized training and re-training workshops for teachers in primary and Junior Secondary School levels to update their knowledge and skills in teaching of Basic Science (Mohammed, 2007). This is in compliance with the National Policy on Education (FRN, 2013) which has one of its aims as giving equal educational opportunities to all children, their physical, sensory, mental, psychological or emotional disabilities notwithstanding. It is based on this that learning of Basic Science by all students, including students with visual impairment became inevitable

Visual impairment also known as vision impairment is a medical definition primarily measured based on individual's better eye visual acuity in the absence of treatment such as corrective eyewear, assertive device and medical treatment. World Health Organization ([WHO], 2021) defines visual impairment as presenting acuity of less than 6/12 in the better eye. The term visual impairment involves mild, moderate and severe vision impairment. The term blindness is used for complete or nearly complete vision loss. World Health Organization (2021) classifies vision impairment into two: Distance and near presenting vision impairment. Mild- visual acuity worse than 6/12 to 6/18 and Moderate- visual acuity worse than 6/18 to 6/60. Severe- visual acuity worse than 6/60 to 3/60. Researchers have shown that students being highly involved in teaching and learning of Basic Science have better achievement in school subjects including Basic Science than students who were not involved due to vision challenge which invariably result in low achievement. (Afuwape & Olatoye, 2014).

Achievement is defined as something which has been carried out successfully especially by means of exertion, skill, practice or perseverance. Achievement represents performance outcomes that indicate the extent to which a person has accomplished specific goals that were the focus of activities in instructional environments specifically in schools, colleges and universities (Hattie, 2009). Achievement in the context of this study is referred to as the accomplishment of students in an academic or learning task. Achievement can be described as low or high depending on the level of performance of the learner in a given academic task. Achievement is termed low when in a given academic task, a student's performance is below an expected level of accomplishment and termed high when the student's performance is above the expected level of accomplishment. There are different ways to enhance students' achievement. Broussard and Garrison (2004) posited that one successful method to enhance achievement is to motivate and excite learning by changing the school culture. The authors affirm that this can be accomplished by encouraging teachers to use new improved learning approaches to teach, coupled with added commitment among teachers to empower all students in learning of school subjects including Basic Science, gender differences notwithstanding.

Consequently, there has been pronounced poor achievement of students with visual impairment in Basic Science in Junior Secondary Certificate Examination (JSSCE), and this has created a lot of concern in the minds of the parents, teachers and other stake holders in education sector. The poor result is evident in 2017, 2018 and 2019 Junior Secondary School Certificate Examination (JSSCE) results. The statistics from College of Immaculate Conception, Enugu and Girls Secondary School, Ngwo showed that in 2017, out of ten students with visual impairment who sat for examination in Basic Science none had distinctions or credit, ten (100%) had pass level. In 2018, thirteen students sat for the same examination and out of the thirteen none had distinction or credit, ten (77%) had pass level and three (23%) failed. In 2019, fifteen students sat for the examination and out

of the fifteen none had distinction or credit, ten (67%) had pass level and five (33%) failed (Result of the 2017, 2018 & 2019. Junior Secondary School Certificate of students with visual impairment in Enugu State). The statistics also showed that though the students with visual impairment who sat for the examination in the above mentioned years could not get distinctions in other subjects they sat for but some of the students had credit level in some of these other subjects such as English, Igbo, Social studies and Religion to mention but a few.

Researchers have shown that it is not only vision that can be a hindrance to the study of Basic Science but also inappropriate teaching strategy (Fatokun and Inti 2007). These authors attributed students' poor result in Basic Science to poor instructional approaches, general lack of training in the use of Braille instruction, lack of Braille machines and their materials, slow in writing during learning instructions and during exams as well as problems of mobility in the school environment. Based on the interview, the researchers had with Basic Science teachers, the director of Education for the students with visual impairment as well as students with visual impairment themselves; it was evident that students with visual impairment who received instructions in Basic Science through conventional-lecture strategy encounter a lot of challenges. These challenges include not giving them room for active involvement during teaching and learning processes, not using activity-oriented strategy such that could give students with visual impairment opportunity to possess in-depth knowledge in Basic Science. The situation therefore, calls for a search for appropriate teaching and learning strategies that will give students with visual impairment room for active participation, exchange of ideas as well as opportunities to ask questions. All these were expected to encourage students with visual impairment to learn maximally. Based on this premise, the researchers were motivated to investigate on the effect of Jigsaw and Team pair-solo cooperative learning strategies as activity-oriented strategies on achievement of students with visual impairment in Basic Science.

Cooperative learning is an educational approach which aims to organize classroom activities, academic and social learning experiences (Sharan, 2010). To the researchers, cooperative learning is an organized and structured strategy that involves students working together in small groups of two-six people tackling a common learning task in order to achieve a set goal. Two cooperative learning strategies identified by Schul (2012) were used in this study. These include jigsaw and team-pair solo. Jigsaw strategy is a multifunctional structure of cooperative learning. Jigsaw can be used in different ways for a variety of goals, but it is primarily used for acquisition and presentation of new material, review or informed debate. There are steps involved in carrying out Jigsaw cooperative learning strategy. These steps include: Firstly, materials are divided into sections and each of the expert groups is assigned a section to learn, explore and then report to their home groups. Secondly, the class shares common learning experiences and the expert groups take different approaches in analyzing or responding to these experiences. For instance, presenting an experiment or other scientific activities in Basic Science, posing a problem and presenting a possible solution for home group discussion. Finally, all the students will come together as a class to share ideas in their various tasks which will be followed by assessment of students' performance in the learning tasks (Kagan 2001).

Team-pair solo is a learning strategy where students solve problems first as a team, then with a partner and finally on their own (individually). Team-pair solo is designed to motivate the students or learners to tackle and succeed in solving problems which initially were beyond their ability (Ogunleye 2011). The choice of these strategies was because the strategies are activity oriented, involving and increase higher level of reasoning; create new ideas and solutions in learning Basic Science tasks. Researchers have shown that when students are actively involved in teaching and learning process and necessary feedback received in their small groups, the students' achievement should be high. Trends in research and evidence from literature tend to suggest that cooperative learning strategies such as the above discussed strategies enhance and increase students' achievement (Ogunleye, 2011).

Another controversial issue that has been of interest to the researchers is the issue of gender differences in achievement. World Health Organization (2023) defined gender as the characteristic of women, men, girls and boys that are socially constructed. This includes norms, behaviours and roles associated with being a woman, man, girl or boy as well as relationships with each other. It varies from society and can change over time. Gender refers to different roles, rights, and responsibilities of men and women and relations between them (Bazilli 2010). Operationally, gender refers to the roles, responsibilities or attributes attached to males and females in a society depending on the culture of such society. This implies that the roles and expectations of males and females are defined by societies and cultures.

Some studies have found significant differences in achievement of male and female students (Olupide 2004). Nonetheless, Onwu (2015) in his study found no significant difference in Basic

science achievement of male and female students. This difference in research reports indicates that the issue of achievement and gender of students in school subjects is still inconclusive. However, the above studies were conducted with students with normal vision. This situation therefore, motivated the researchers to carry out this study to investigate the effect of cooperative learning strategies on achievement of students with visual impairment in Basic Science using gender as one of the independent variables.

This low achievement in this subject was as a result of their peculiarities. It then becomes pertinent to investigate the effect of cooperative learning strategies specifically on achievement of students with visual impairment in Basic Science.

Purpose of the study

The main purpose of this study was to investigate the effect of Jigsaw and Team pair-solo cooperative learning strategies on Basic science achievement of students with visual impairment. Specifically, the purpose of the study was:

1. To investigate the effect of Jigsaw and Team pair-solo cooperative learning strategies on Basic science achievement of students with visual impairment,
2. To investigate Basic science achievement of male and female students with visual impairment.
3. To investigate the interaction effect of treatment and gender on Basic science achievement of students with visual impairment.

Research Questions

The following three research questions guided this study

1. What is the mean Basic science achievement scores of students with visual impairment exposed to jigsaw and team pair-solo cooperative learning strategies and those exposed to conventional lecture strategy?
2. What are the mean Basic science achievement scores of male and female students with visual impairment?
3. What are the interaction effect of treatment and gender on mean scores in Basic science achievement of students with visual impairment?

Hypotheses

The following null hypotheses were formulated and tested at 0.05 level of significance.

1. There is no significant difference in the mean Basic science achievement score of students with visual impairment exposed to Jigsaw and Team pair-solo cooperative learning strategies and those exposed to conventional lecture strategy as measured by Basic Science Achievement Test (BSAT)
2. There is no significant difference in the mean Basic science achievement scores of male and female students with visual impairment.
3. The interaction effect of treatment and gender on Basic science achievement of students with visual impairment is not significant.

Method

The study adopted quasi-experimental design. Quasi-experimental design according to Nworgu (2015) is an experiment where random assignment of subjects to experimental and control group is not possible. Specifically, it employed the pre-test post-test non-equivalent control group design involving two experimental groups and one control group.

The study was carried out in Enugu State where students with visual impairment (blind) study together with the sighted students. The schools are College of Immaculate Conception, Enugu in Enugu South LGA and Girls Secondary School Ngwo in Udi LGA of Enugu State. The population of the study consisted of all 35 junior secondary school two (JSS II) of students with visual impairment (15 male and 20 females) who also were used as sample of the study. The instrument for the study was Basic Science Achievement Test (BSAT) It was based on the JSS2 Basic science syllabus of the schools. BSAT was developed by the researchers and four basic science teachers from the two schools who served as research assistants. The questions were in objective form made up of twenty questions from Basic science topics selected from the (JSS2) 3rd term learning content. The choice of 3rd term was to see that the learning content will not be taught then. The instrument was validated by experts,

two in Educational Psychology and one in Measurement and Evaluation all in the Faculty of Education in the University of Nigeria, Nsukka.

Experimental Procedure

The first stage was an initial visitation to the secondary schools where students with visual impairment study in large number with those with normal vision in Enugu State of Nigeria from January 2019 to March 2020 when the students will be free to some extent. During the visitation, the principals took us around the schools to see the students in their various classrooms. WHO's visual impairment classification was taken into consideration in choosing the students with visual impairment (blind). The researchers generated and used random sampling techniques with plastic container with (slips of paper) during the random assignments of the recruited participants into intervention group (n=18 participants) and no intervention (n =17 participants).

The participants were exposed to a container with slips of paper written A, 12slips, 12 slips written B and 11 slips written C. The papers were folded and properly mixed in the plastic container for the participants to pick. Those who picked 'As' were grouped into intervention treatment 1(jigsaw strategy) while those who picked Bs were grouped into intervention treatment group 2 (team-pair solo strategy) and those who picked Cs received no intervention, they were grouped as control group and received instruction on (conventional- lecture strategy). This was carried out in Enugu state of Nigeria. During the first meeting (session), the participants familiarized with the research assistants and the participants, rules and regulations, objectives of the study, name of each participant, challenges of the participants were presented. Participants were also encouraged to exchange pleasantries which will be followed by the assessment of the chosen plan. Before the commencement of the treatment, students in the control group and the experimental groups were given the pre-test. The first session focused on familiarization with participants, rules and regulation, establishment of rapport with the participant and plans for executing the learning strategies proper. Session 2-4 focused on pre-test to the participants to identify their level of achievement in Basic science. In each, intact streams received the appropriate instructional programme during the usual Basic Science periods in the regular school time table of classes which lasted for three weeks. Experimental group were taught using JCLS and TCLS approach while those in control group were taught using conventional-lecture strategy procedure. Thereafter, the researchers met the participants 3 months later for follow-up evaluation.

Measures

Basic Science Achievement Test (BSAT) served as pre-test-and post-test. It was developed by the researchers with the assistance of the four Basic Science teachers who were teaching in the two schools who equally served as research assistants. BSAT was developed based on the (JS2) Basic Science syllabus of the two schools used in this study. The questions were in two forms sub-objective and objective form. It was made up of twenty questions from the Basic Science topics selected from (JS2) 3rd term learning content. The choice of 3rd term was because it could not have been taught as at the time of the research. The measure assesses the achievement of students with visual impairment in Basic Science when studying with Jigsaw and Team pair-solo cooperative learning strategies. The reliability showed Cronbach's alpha co-efficient of high validity. In Basic Science Achievement Test Kuder-Richardson formula 20 was used to determine the internal consistency reliability of the items which yielded a reliability value of 0.80

The study also tested the reliability of BSAT in the Nigeria context and found its internal consistency of 0.80 indicating that BSAT is reliable instrument. BSAT has twenty items which was used to identify the achievement level of the students with visual impairment.

Questions no 2, 9, 10, 13and 19 were allotted 2 marks each or zero while all sub-objective questions 1,3, 4, 5, 6, 7, 8, 11, 12, 14, 15,16, 17, 18 and 20 were allotted 6marks each or zero

Research Assistants

In this study, four research assistants were used.Two male and two female Basic Science teachers. The age range of these research assistants wasbetween 35 to 45 years old. They were professionallylicensed teachers. These research assistants were briefed and guided on how to use jigsaw and team-pair solo cooperative learning strategies by the researchers. The briefing and guidance lasted for two weeks. Each meeting with the researchers and research assistants lasted for 45minutes each week until there wasevidence of mastery by the research assistants.

Treatment manuals

Jigsaw cooperative learning strategy(JCLS) program developed by the researchers were sets of lesson notes used to instruct the students with visual impairment in Basic Science to learn how to

work in team, grouping the students according to tasks using jigsaw strategy. These students were taught using JCLS. The groups were arranged to expertsto examine aspects of text or discussion topic. In addition, home group are the individual sub-group composed by the researchers and each group is assigned specific tasks by the researchers. The individual group performed their independent task within the time specified for such assignment. Information was combined to get the full picture of the problems, text, topic or tasks. Steps involved in carrying out JCLS: Firstly, materials are divided into sections and each of the expert group was assigned sections to learn, explore and then report to the home group. Secondly, the class shares a common learning experience and the expert groups take different approaches in analyzing or responding to the experiences eg. by experimentation or other activities in Basic Science. Finally, JCLS involves tests and assessment. The strategies were designed to last for three months.

Team-pair solo Cooperative Learning Strategy (TCLS) program developed by the researchers, is also a sets of lesson notes focused on starting to solve problem as a team, then with a partner and finally on their own (individually). The focus of this strategy is solely designed to motivate the students to tackle and succeed at problems that initially are beyond the students' ability (Mediated learning). In this treatment TCLS, it involved three steps: students were first arranged in teams of 5 students each, up to three teams and 1 team of 4 students, Second step was to pair the students in pairs to handle learning activities and lastly was to assign learning content to an individual to learn on his or her own.

The research questions were answered using mean, standard, deviation and Analysis of Covariance (ANCOVA) which was used to test hypotheses formulated for this study at $p < 0.05$ level of significance.

Results

Table 1: Mean and standard deviation of Basic Science achievement scores of students with visual impairment exposed to Jigsaw cooperative learning strategy, Team pair-solo cooperative learning strategy and those exposed to conventional-lecture strategy

Treatment	Pre-test			Post-test		
	N	Mean	SD	Mean	SD	Mean Gain
Jigsaw	14	47.71	13.21	77.71	9.37	30.00
Team pair-solo	14	49.00	12.34	74.51	8.53	25.51
Conventional-lecture Strategy	7	20.57	13.55	44.00	6.11	23.43

Table 1 shows that the students with visual impairment who were exposed to Jigsaw cooperative learning strategy had mean post-test Basic Science achievement score of 77.71 with a standard deviation of 9.37 against their pre-test Basic Science achievement score of 47.71 and standard deviation of 13.21 in Basic Science, students with visual impairment who were exposed to Team pair-solo cooperative learning strategy had mean post-test Basic Science achievement score of 74.51 with a standard deviation of 8.53 in Basic Science against their pre-test Basic Science achievement score of 49.00 and standard deviation of 12.34 in Basic Science while those who were exposed to conventional-lecture strategy had mean post-test Basic Science achievement score of 44.00 with a standard deviation of 6.11 in Basic Science against their pre-test Basic Science achievement mean score of 20.57 and standard deviation of 13.55 in Basic Science. Mean gain scores of 30.00, 25.51 and 23.43 for the three groups respectively imply that the students with visual impairment who were exposed to Jigsaw cooperative learning strategy had higher mean post-test Basic Science achievement score than those exposed to Team pair-solo and conventional-lecture strategy followed by those exposed to Team pair-solo.

Table 2: Mean and standard deviation of Basic Science achievement scores of male and female students with visual impairment

Gender	Pre-test			Post-test		
	N	Mean	SD	Mean	SD	Mean Gain
Male	15	44.26	17.38	73.46	15.14	29.20
Female	20	41.70	16.86	66.97	15.53	25.27

Table 2 shows that male students with visual impairment had mean post-test Basic Science achievement score of 73.46 with a standard deviation of 15.14 against a pre-test achievement score of 44.26 with standard deviation of 17.38 while the female students with visual impairment had mean post-test achievement score of 66.97 with a standard deviation of 15.53 in Basic Science against their mean pre-test achievement score of 41.70 with a standard deviation of 16.97. Mean gain scores of 29.20 and 25.27 for the male and female students with visual impairment respectively imply that male students with visual impairment had higher mean post-test Basic Science achievement score than their female counterparts

Table 3: Mean and standard deviation of Basic Science achievement scores of students with visual impairment for the interaction effect of treatment and gender

Treatment	Gender	n	Pre-test		Post-test	
			Mean	SD	Mean	SD
Jigsaw	Male	6	46.66	14.78	84.33	1.50
	Female	8	48.50	12.90	72.75	9.79
Team pair-solo	Male	6	52.66	14.06	74.66	12.11
	Female	8	46.25	11.02	74.50	5.52
Conventional-lecture Strategy	Male	3	22.66	12.05	49.33	1.15
	Female	4	19.00	16.20	40.00	4.89

Table 3 reveals that male students with visual impairment who were exposed to Jigsaw cooperative learning strategy had mean post-test Basic Science achievement score of 84.33 with a standard deviation of 1.50. Male students with visual impairment who were exposed to Team pair-solo cooperative learning strategy had mean post-test Basic Science achievement score of 74.66 with a standard deviation of 12.11 while the male students with visual impairment who were exposed to conventional-lecture strategy had mean post-test Basic Science achievement score of 49.33 with a standard deviation of 1.15. Female students with visual impairment who were exposed to Jigsaw cooperative learning strategy had mean post-test Basic Science achievement score of 72.75 with a standard deviation of 9.79, female students with visual impairment who were exposed to Team pair-solo cooperative learning strategy had mean post-test Basic Science achievement score of 74.50 with a standard deviation of 5.52 while the female students with visual impairment who were exposed to conventional-lecture strategy had a mean post-test Basic Science achievement score of 40.00 with a standard deviation of 4.89. This by implication may have revealed that male and female students with visual impairment in the treatment groups had higher mean post-test Basic Science achievement scores than the male and female students with visual impairment who were in the conventional-lecture group.

Discussion

The findings of this study indicated that students with visual impairment exposed to jigsaw cooperative learning strategy had higher achievement in Basic Science than those exposed to team pair-solo and conventional lecture strategies. The result also revealed that those students exposed to team pair-solo cooperative learning strategy achieve better in Basic Science than those exposed conventional lecture strategy. This by implication shows that Jigsaw cooperative learning strategy enhances achievement more than team pair-solo cooperative learning strategy and conventional lecture strategies. The findings of this study also revealed a significant difference in achievement of students with visual impairment in Basic science in favour of those students exposed to the two cooperative learning strategies. This implies that cooperative learning strategies enhance greater achievement than conventional lecture strategy. The result of the study is in agreement with the work conducted by Ajaja and Eravwoke (2010) on effect of cooperative learning strategy on junior secondary students' achievement in integrated science which revealed that those in cooperative learning group achieved better than students exposed to traditional classroom. In the same vein a study conducted by Bukunola and Idowu(2012) on effectiveness of cooperative learning strategies on Nigerian junior secondary school students' academic achievement in Basic science revealed that students exposed to cooperative learning strategies (learning together and jigsaw 2) achieved better in Basic science than those exposed to the conventional lecture strategy.

The result of the study indicated that male students with visual impairment exposed to jigsaw and team pair-solo cooperative learning strategies had better achievement in Basic Science than their

female counterparts. The result further revealed a significant difference in Basic science achievement of male and female students with visual impairment in favour of male students.

Recommendations

Based on the findings, the following recommendations were made.

1. Teachers should make teaching and learning process student-centred thereby making it possible for the students especially the students with visual impairment to participate actively, share ideas, persist on learning tasks as well as take decision on their set goals.
2. There is also need for the students with visual impairment to possess cordial relationship among themselves. The students should strive for mutual benefits, recognize that all group members share common fact (we all sink or swim together here), Feel proud and celebrate when a group member is recognized for achievement, Know that one's performance is mutually caused by oneself and one's team member. (we cannot do it without you).
3. Schools should be encouraged to adopt jigsaw and team pair-solo cooperative learning strategies for its efficacy. For these strategies are content oriented, make students self-reliant, participatory and decision makers. Help students with visual impairment as well as other caliber of students to be in charge of their lifeactivities and their educational achievements.
4. The government and other stakeholders in Education sector as well as School Based Management Committee (SBMC) need to provide essential infrastructural facilities such as Braille, enabling environment as well as other important instructional aids to help students achieve maximally in Basic science.

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**STRATEGIC LEADERSHIP AS A MEANS FOR IMPROVING
COMMUNITY POLICING FOR SUSTAINABLE
DEVELOPMENT IN NIGERIA**

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Abstract

The state of insecurity in Nigeria has continuously taken an alarming dimension. This state of affairs demands leadership approach that is strategic in nature for sustainable community development in Nigeria. Hence, this study focused on the Strategic leadership as a means for Improving Community Policing for Sustainable Development. Two research questions and two hypotheses guided the study. The design of the study is a descriptive survey research design. The population of the study is 4550 from the 10 registered town union in the local government. The sample size for the study is 455 which constituted 10% of each town union using proportionate simple random sampling technique. Questionnaire titled: Strategic Leadership Questionnaire was used for data collection. The instrument was face validated by three experts. Data collected from the respondents were analysed using the mean and standard deviation. The two null hypotheses were analysed using t-test. Findings of the study revealed that community involvement in crime prevention for sustainable national development requires strategic vision and social capital development to improve community policing in Okene LGA. Based on these findings, some recommendations were made. The federal government through the police service commission should expose the Community Based Organisation's (CBOs) leaders to quality training on the skills required by the vigilantes and the social capital dimensions that should be in place in order to strategically equip them to lead the vigilantes to effectively police their communities.

Introduction

Nigeria in recent times has witnessed an unprecedented level of insecurity. This has made national security to be a major issue for the government and has prompted huge allocation of the national budget to security. In order to ameliorate the incidence of crime, the federal government has embarked on criminalization of terrorism by passing the Anti-Terrorism Act in 2011, installation of Computer-based Closed-Circuit Television cameras (CCTV) in some parts of the country as surveillance and as a way of investigation of criminal related offences. All these are done to curtail the heightening of physical insecurity around the country. The aim is to deter or disrupt potential attacks, strengthening of security agencies through the provision of security facilities and the development and broadcast of security tips in mass media (Azazi, 2011). Despite these efforts, the level of insecurity in the country is still high. This is shown by the consistent low ranking of Nigeria in the Global Peace Index (GPI, 2012), signifying a worsened state of insecurity in the country. Hence, Adagba, (2012), Uhumwuangho, (2011) and Aluforo (2011) are of the view that the efforts of government have not yielded enough positive result. With the lingering security challenges and the inability of the security apparatus of the government to guarantee safety and security in the country. The question that borders everyone in Nigeria today is "can there be safety"? "Is security of lives and properties achievable"? These questions are necessary due to overwhelming challenges faced by the Nigerian Police. Worthy of mention among these challenges are nepotism, ethnicism, corruption, institutional weaknesses such as inadequate manpower (both in strength and expertise), insufficient education and training, inadequate equipment and poor conditions of service of the average policeman. Ibeanu (2007), say that poor public relations between the police and the hosting community has created a lack of public cooperation, and constitutional problem that put the country's police wholly under the Presidency, and most recently, the poor perception of police by both police officers and the public. These problems have hindered, to a very large extent, the ability of the Nigeria police to perform their functions effectively. The public looks at the police officers with scorn, distrust and suspicion. They do not

consider them as friends and allies in the fight against crime but rather as enemies on the side of the criminals (Igbo, 1999). Due to this poor perception of the police, the public are reluctant to provide any form of support or cooperation to the police. This lack of trust in the police often leads to a resolve by the public not to cooperate with them in crime fighting, and sometimes resort to lynching of suspects by angry mobs (Igbo, 2013). In fact, the relationship between the police and the public is very often characterized by brutality, confrontation, and exploitation (Ibeanu, 2007). Ibeanu further stated that as a result of the public distrust of the police, the federal government, in 2003 undertook a number of measures to improve the police and citizen relationship. The federal government established in all state commands the Police Complaints Bureau and the Human Rights Desks, and they introduced a pilot community policing project in all the 774 local governments in the country.

This community policing program was extended to Okene local government of Kogi state. This program was initiated due to consistent heighten insecurity level in the country. Beland (2005) described insecurity as the state of fear or anxiety stemming from a concrete or alleged lack of protection. It refers to lack of freedom from danger and attack which pose as a threat to human existence. Insecurity in Nigeria has developed into a phenomenal plague with security challenges such as kidnapping, suicide bombing, militancy, ethnic related conflicts, armed robbery and politically induced violence which has significantly impacted the development of communities in the country. It is estimated that over 2 million persons have been displaced as a result of insecurity in the country (UNHCR, 2019). This state of affairs has destroyed the very foundations of national unity and as such fear, suspicion and apprehension have become the order of the day in today's society (Imhonopi & Urim, 2012). The strategic positioning of Okene LGA of Kogi state as gateway has made it an important point that must be secured for safety of the communities and thousands of passersby through the communities in the local government. It means Okene LGA need to be defended, protected and preserve its values, and instill the absence of threats to the acquired values (Terriff cited in George-Genyi, 2013). But the reverse is the case to the people of Okene LGA of Kogi state as they experience several security challenges such as theft of public property, robbery and rape by these robbers, murder and man slaughter and other crimes such as vandalisation, burglary, and kidnapping for ransome (McNamara, 2010). All of these vices however, poses threat to peaceful existence of the people as it stirs up uncertainty, doubts, un-safe environment, lack of protection of property and livelihood and raise in the people sense of fear of the unknown which are tantamount to community development (Mijah, 2019).

Due to this security challenges including the unwillingness, nonchalant attitude plus insufficient training of the police to attend and handle security issues at the local levels, and couple with the strategic nature Okene LGA as a gate way between North and South part of Nigeria, the communities in the local government area of Kogi state sees community policing as an initiative, a worthwhile alternative to secure their community. Consequently, the need for this study in Okene LGA is to explore ways on how strategic leadership could be used as a means for improving this worthwhile initiative of community policing for sustainable development in Okene local government area of Kogi state Nigeria. In Okene LGA, series of events has happened that has constantly threatened her security and the perpetrators remain undiscovered, leading to youth restiveness. Furthermore, due to the poor image of the Nigerian police in the public domain, distrust and poor perception by the community members in Okene LGA. The police are seen as criminals and do not involve them when they faced security challenges or do so reluctantly. These speedily led to the establishment of viand many more occurrences led to the establishment of community police as an alternative to confront and overcome the security challenges in various community of Okene LGA of Kogi state.

Community policing is a paradigm shift established at the bedrock of community partnership in creating safe and secure environment for all (Ugwu, 2020). According to Benit-Gbaffou (2006) community policing offers and improves community participation in securing the neighborhood. Kpae & Adishi (2017) asserts that community policing places emphasis on the decentralization of power of policing in which the community members are involved at the grassroot and improves the relations with citizens in the community. As a result of this decentralization of policing, members of the community form group to collaborate and partner with the regular police in securing lives and property. These groups are known as vigilantes or neighborhood watch. Alemika and Chukwuma (2005) noted that as a result of police inefficiency and ineffectiveness in crime prevention and control, detection and apprehension of criminals, poor rule of law records, the violation of human rights, lack of accountability, the public holds the police in low esteem and is fearful of their brutality, extortion and loss of life. In addition, the public loss of trust and confidence in the police in the state, and in the face of unrelenting upsurge in violent crimes in the society, led to the advent and formation of

informal policing called the vigilantes otherwise known as neighbourhood watch (Abrahansen & Williams, 2015).

Vigilantes are voluntary security or enforcing group who has full legal and legislative backing to complement the work of police in intelligence gathering and minimizing crime (Elekwa, 2019). Vigilante help to protect people's lives and their properties, reduce fear of crime by means of improved home security, greater vigilance and accurate reporting of suspicious incidence of crime to the police (Okeke, 2013). Vigilantes are locally organized group of individuals devoted to crime prevention within a community with little or no assistance from the government. They comprised local people who resides in the community and are active in the community affairs (Chukwuma, 2012). Due to the importance of the community vigilantes, it has become imperative to provide or evolve strategically, leadership processes that could be used to improve community policing. Strategic leadership involves a purposeful vision, developing the required competencies, harnessing the human capital resources, effective organizational culture, developing the requisite ethical practices, and a balanced organisational control that will create the needed security outfit to secured the community through effective collaboration between the vigilantes and the regular police.

A few decades past, the construct of "strategic leadership" has emanated and developed as a discrete area of theory and research that bonds the schools of strategic management and leadership within the social sciences and the education. Strategic management is much more focused on strategic choices and strategic decisions than on the processes by means of which such decisions are made or implemented, whereas leadership theory based on classic ontology mostly deals with matters of the "leader-follower" relationship in teams or at lower organisational levels, with little emphasis on actions of organisational leaders (Yammarino & Dubinsky, 1992; Wang et al., 2012). It is a social construct which researchers and practitioners use their knowledge to form social facts that influence the world of the phenomenon; in fact, they constitute strategic leadership, impose properties on it and create it (Berčić, 2012). Hence, strategic leadership as a characteristic of an organisation, and does not have to be dependent on formal authority. This means that roles and functions of strategic leadership can be divided and dispersed between multiple actors in the organisation, but also formalised in routines, procedures and activities embedded in the organisational system. Hence, strategic leadership is the utilization of employees strategically to achieve the organizational vision and mission, resources and services, and to strengthen community participation for sustainability and self-reliance (Khasnabis, Heinicke, Achu 2010). For the purpose of this study, we will discuss two components of strategic leadership which could improve community policing for sustainable development in Okene LGA of Kogi state. These include the development of required competencies, and harnessing the social capital resources to improve community policing for sustainable community development in Okene Local Government of Kogi state.

Competence can be seen as having the requisite knowledge and skill to carry out a particular task effectively to achieve the desired goal of an organisation (Bala; Osagie & Yakubu, 2019). It is also the ability of an individual worker to do a job according to prescriptions (Akpan, Akaeze & Nebo, 2016). Ifeanyieze & Olaitan (2009) described competency as a state of being adequate in performing a task. Competences required for effective policing among the Nigerian police include investigation of cases, monitoring of cases, knowledge of the legal framework and right issues in investigations, understanding policy and operational framework, communication and cooperating with key stake holders. Skill in assessing situations; recognizing when to take action and deciding on an appropriate course of action. Skill in reading, comprehending, retaining, and applying written factual information. Skill in analyzing situations quickly and objectively; recognizing actual and potential dangers; determining a proper course of action. Skill in observing and remembering detail. Willingness to confront a variety of problems and situations. Interpersonal/interracial/public relations skills. Skill in operating a motor vehicle. Dependability and sound work habits. Characteristics necessary to maintain integrity, truthfulness and credibility.

To this effect, the task of strategic leaders is to give meanings to relationships, symbols and other artefacts that constitute reality, and to use existing or construct new ideologies in searching for and giving sense to organisational action. Strategic leaders interpret the organisation and the world around them based on their own cognitive structures that indicate how they internalise their knowledge and understanding of organisational life in the form of a simplified representation of reality (Hodgkinson & Clarke, 2007; Hodgkinson & Healey, 2008). Strategic leaders use a unique approach to examine what it means to be a strategic leader instead of focusing on the skills, behaviors, and tools found in typical books on strategic leadership. They shed light on the attributes and qualities necessary to lead strategic change and help transform a business organisation. Strategic leadership is what modern leadership is all about. Organizations expect leaders to anticipate and be proactive more than

ever before. This leads to social capital resources, another dimension of strategic leadership for improving community policing.

The social capital dimensions include harnessing the social capital resources to improve community policing. This involves democratic partnerships between the community, the police, the public and the private sector organisations. In this perspective, social capital is the interpersonal network formed by relationship investment (Ehsan et al, 2019). The components of social capital that enhances these interpersonal relationships among stakeholders are network, norms, trust, culture, and cooperation. Creating a strong relationship between the vigilantes and the regular police helps to improve community policing. The mission of the vigilante group in Nigeria is to supplement and complement effort of the Nigeria police, consequently, the vigilante became registered with the Corporate Affairs Commission (CAC) in 1999 (Obeagu, 2014). The Vigilantes are meant to complement the efforts of the police in community policing by checkmating activities of hoodlums and identifying their hideouts both in the urban and rural communities. According to Adejoh (2013) policing function is more effective when it is carried out as a collaborative and collective responsibility among the stakeholders. Phenson, (2014) observed that close liaison or networking of vigilante with police is important especially with intelligence sharing, security planning and operations. In the same vein, for effective policing, community members should pass across relevant information to the police and the vigilante concerning criminal activities and hideouts of criminals in their communities.

Community members are reluctant to report criminal activities to the vigilante group and the police as observed by (Okunola, 2011). It is quite necessary that stakeholders collaborate effectively to ensure that crime is minimized in all environment. This is where the social capital components should be adopted to strategically police the community through collaborative partnership between police, vigilante and community members; since, it involves commitment of everyone to reduce crime and the fear of crime in every community (Trajanowicz, 2010). Theoretically, these acts collaborate the works of Tönnies (1995) and Weber (1946), which reflect on social interactions in modern society with its interesting contributions in the 1950s and in the 1960s. Especially, mass society theory as developed by Daniel (1962), Robert (1969), Maurice (1960), William (1956), which proposed themes similar to those of the founders, with a more pessimistic emphasis on the development of society. Stein (1960:1): "The price for maintaining a society, encourages cultural differentiation and experimentation is unquestionably the acceptance of a certain amount of disorganization on both the individual and social level." Furthermore, Jane in early 1960s used the same term. Although her definition of the term social capital was not explicit, she only refers to the value of networks. Robert Salisbury, a political scientist also projects the term as a vital component of interest group formation in his 1969 article "An Exchange Theory of Interest Groups". Pierre Bourdieu a sociologist, in 1972 treated the term in his Outline of a 'Theory of Practice', and refined it years later in contrast to cultural, economic, administrative, physical, political, symbolic and social capital. James (1988), a sociologist as well as Barry, & Scot (1990), in agreement with Glenn Loury's 1977 definition, popularising the concept. Again, the concept gained popularity in late 1990s, which serves as the focus of a World Bank research programme and the subject of several mainstream books, including Robert Putnam's 'Bowling Alone', and Putnam & Lewis Feldstein's 'Better Together'.

Thus, the aim of this research is to investigate Strategic leadership as a means for improving community policing for sustainable national development in Nigeria especially in Okene LGA of Kogi State. This study is important since many communities in Nigeria have witnessed various descriptions of crimes, including Okene Local Government Area of Kogi State. Thus, crime has become a serious issue in contemporary Nigeria. The police who are the primary agent in the fight against crime are ineffective. The ineffectiveness of the police is due to poor strategic leadership as witnessed in under-staffing, under-equipped, corruption and poor public image. These have created problem of under policing in Nigeria. Thus, crimes of various dimension are on the rise daily and many passes undetected and prosecuted. Many people are being dispossessed of their valuable property and others are killed or maimed for life by criminals. Many people hardly sleep in their houses at night for fear of criminal.

Consequently, the insecurity, lawlessness and violent crimes witnessed in Nigeria has reached unprecedented levels. Conversely, these experiences of increase crime and insecurity such as kidnapping, homicide, armed robbery, youth restiveness and cultism is a clear indication that the police-community partnership introduced for relatively over a decade as argued by Dickson (2007), has not really achieved its original aims and objectives. As beneficial as community oriented policing is, it faces difficulties in its implementation and operation because the community people sees police as enemies and should not be trusted for their safety as most of these community members believes

that some of the crimes perpetrated in the community are done by the police who pretends to be protecting them. These are the reason why this study is carried out to exploit leadership strategically as a means for improving community policing for sustainable national development in Nigeria.

Purpose of the Study

The main purpose of this study is to examine Strategic leadership as a means for improving community policing for sustainable national development in Nigeria. Specifically, the study seeks to:

- determine the cognitive level of the community leaders on the skills needed by the vigilantes to strategically improve community policing in Okene LGA of Kogi State.
- ascertain the social capital dimension put in place by the leaders to strategically improve community policing in Okene LGA of Kogi State.

Research Questions

Two research questions guided the study

1. What are the cognitive levels of the leaders on the skills needed by the vigilantes to strategically improve community policing in Okene LGA of Kogi State?
2. What are the social capital dimensions put in place by the leaders to strategically improve community policing in Okene LGA of Kogi State?

Hypotheses

The following null hypotheses guided the study

- Ho₁ There are no significant differences in the mean rating of respondents on the cognitive levels of the leaders on the skills needed by the vigilantes to strategically improve community policing in Okene LGA of Kogi State?
- Ho₂ There are no significant differences in the mean rating of respondents on the social capital dimensions put in place by the leaders to strategically improve community policing in Okene LGA of Kogi State?

Method

The design adopted for this study is a descriptive survey research design. The study aims at seeking the opinions of the respondents to ascertain their cognitive levels on the skills needed by the vigilantes and the social capital dimensions harnessed to improve community policing in Okene LGA of Kogi State. The population of the study is 4550 respondents comprising all the 11 community's development organisations (CBOs) in Okene local government area of Kogi state. The CBOs are community development organisation that focus on improving the standard of living of their various community in all ramification. Hence their selection for this study. Proportionate stratified simple random sampling technique was adopted for the study. In this method, each community is put into strata and using simple random sampling technique, 10% will be drawn from each stratum. This yields 455 respondents that serve as the sample size for the study. A researcher structured questionnaire was designed for the study for the purpose of data collection titled "Strategic leadership for improving community policing questionnaire (SLICPQ). It was designed on a four-point scale of (4) Strongly agreed (3) Agreed (2) Disagreed (1) Strongly disagreed. The questionnaire was face validated by three experts from the Departments of Adult Education and Extra Mural Studies and Science Education both in the University of Nigeria, Nsukka. Inputs made by the experts were embedded in the final draft of the instrument. The reliability index of cluster A was 0.73 and cluster B was 0.75 were obtained. The overall reliability index of 0.74 was obtained using Cronbach Alpha method to determine the reliability of the instrument. The instrument was administered to the respondents during their monthly general meeting. The return rate was 97% which is high enough for the study. The data collected was analyzed using mean and standard deviation. Real limit of numbers was used to determine the value of responses of the respondents as Strongly agreed 3.50-4.00 Agreed 2.50-3.49 Disagree 1.50-2.49 Strongly disagreed 0.50-1.49. t-test analysis was used to analyze the null hypotheses. The null hypotheses will be rejected when the significant value is less than 0.05 alpha levels and not rejected when the significant value is higher than 0.05 alpha levels.

Result.

Research question one: What are the cognitive levels of the community leaders on the skills needed by the vigilantes to strategically improve community policing in Okene LGA of Kogi State?

Table 1: mean scores and standard deviation of respondents the cognitive levels of the community leaders on the skills needed by the vigilantes to strategically improve community policing N=455

	Itemstatement	X	SD	Dec
1.	Investigation of cases.	2.00	1.00	D
2.	Monitoring of cases	2.44	1.04	D
3.	Knowledge of the legal framework and right issues to investigate cases	2.45	0.96	D
4	Understanding policy and operational framework	2.60	0.99	A
5	Communication and cooperating with key stake holders.	2.45	1.03	D
6	Skill in assessing situations.	2.38	1.03	D
7	Recognizing when to take action and deciding on an appropriate course of action.	2.41	1.23	D
8	Skill in reading, comprehending, retaining.	2.11	1.07	D
9	Applying written factual information.	2.55	0.21	A
10	Skill in analyzing situations quickly and objectively.	2.31	1.04	D
11	Recognizing actual and potential dangers.	2.91	1.45	A
12	Determining a proper course of action.	2.15	0.67	D
13	Willingness to confront a variety of problems and situations.	2.68	1.09	A
	Grand mean	2.41	0.99	D

The table one shows the result of only 4 items as the cognitive level possessed by the community leaders as shown by their responses to items administered to them. They agreed to items 4, 9, 11 and 13 with mean responses that shows their cognitive level as regards the skills needed by the vigilantes to strategically improve community policing. The other 9 items receive negative responses which are in the majority. This shows that CBOs leaders are strategically not equipped to lead the vigilantes to police their community effectively.

Ho₁ There are no significant differences in the mean rating of respondents on the cognitive levels of the leaders on the skills needed by the vigilantes to strategically improve community policing in Okene LGA of Kogi State?

Table 2: t-test analysis of respondents on the cognitive levels of the CBOs leaders on the skills needed by vigilantes to strategically improve community policing

Respondents	No	\bar{X}	SD	Df	t-cal	Sig	Decision
Male	245	2.57	0.94	454	0.14	0.31	N/S
Female	215	2.19	1.07				
Total	455	2.38	1.05				

Table two shows a t-calculated value of 0.14 significant at 0.31 at an alpha level of 0.05. This result indicated that the null hypothesis is not rejected showing that there is no significant difference in the mean rating of respondents on the cognitive levels of the leaders on the skills needed by the vigilantes to strategically improve community policing in Okene LGA of Kogi State?

Research question two: What are the social capital dimensions put in place by the leaders to strategically improve community policing in Okene LGA of Kogi State?

Table 3: mean scores and standard deviation of social capital dimensions put in place by the strategic leaders to improve community policing in Okene LGA of Kogi State N=455

S/N	item statement	\bar{X}	SD	Dec
15	Sustainable networks are in place to among all stakeholders to enhance community policing	2.00	1.00	D
16	Norms that ensure sustainability of mutual relationship among all stakeholders to enhance community policing are maintained	2.51	1.05	A
17	Mutual trust exist among the stakeholders to enhance community Policing	2.25	1.04	D
18	Harmonious culture that enhances cooperation among all the stakeholders to improve community policing are sustained.	2.76	1.10	A
19	Overall, there is a strong relationship between the vigilantes and The regular police help to improve community policing	2.30	1.07	D
	Grand mean	2.37	1.03	D

From the table, the result shows only two items were agreed to on a positive note. This implied that the social capital dimensions put in place by the leaders to strategically improve community policing in Okene Local Government of Kogi State Nigeria cannot improve the quality of community policing positively. This is shown in the items in their mean and standard deviation value of 2.51(1.00) and 2.76(1.10) signifying that norms that ensure sustainability of mutual relationship and harmonious culture that enhances cooperation among all the stakeholders to improve community policing are in place. But other social capital dimension that are important to strategically to police the community are absent. These include items 1, 3, and 5. with mean and standard deviation response of 2.00(1.00), 2.25(1.04), and 2.30(1.03) showing negative responses from the respondents. The implication is that the leaders lack the capacity to strategically mobilise the social capital dimension to police their various communities in Okene local government of Kogi State, Nigeria.

H₀₂: There are no significant differences in the mean rating of respondents on the social capital dimensions put in place by the leaders to strategically improve community policing in Okene LGA of Kogi State?

Table 4: t-test analysis of respondents on the social capital dimensions put in place by the strategic leaders to improve community policing in Okene LGA of Kogi State

Respondents	No	\bar{X}	SD	Df	t-cal	Sig	Decision
Male	245	2.75	1.01	548	0.11	0.40	N/S
Female	305	2.55	1.05				
Total	548	2.65	1.03				

Table four shows a t-calculated value of 0.11 significant at 0.40 at an alpha level of 0.05. This result indicated that the null hypothesis is not rejected showing that there is no significant difference in the mean rating of respondents on the social capital dimension put in place by the leaders to strategically improve community policing in Okene LGA of Kogi State.

Discussion

The discussion of the study will be accomplished based on the findings of the result of the study which is focused on strategic leadership as a means for improving community policing in Nigeria. The findings from the result of the study as indicated in table one of the responses of the community based organisations (CBOs) leaders as regard their cognitive levels with regards to the skills needed by the vigilantes to strategically improve community policing showed that they did not have cognitive acumen to recognize the skills required of the vigilantes for effective policing of their various communities. These skills include: investigation of cases, monitoring of cases, knowledge of the legal framework and right issues to investigate cases, communicating and cooperating with key stakeholders, skill in assessing situations, skills in recognizing when to take action and deciding on appropriate course of action, skill in reading, comprehension, and retention; skill in analyzing situations quickly and objectively. It also includes determining a proper course of action as regard cases and situations. However, there are some items that the respondents agreed to as skills needed by the vigilantes and they include, understanding policy and operational framework, applying written factual information, recognizing actual and potential dangers and willingness to confront a variety of problems and situations. Overall, this result showed that the CBOs leaders lack the strategic leadership

quality to recognize the needed skills by the vigilantes to effectively police their communities for sustainable national security in Nigeria. Their agreement to some of the items which they considered as needed skills by the vigilantes for sustainable security in their various communities is not enough to achieve the goal of sustainable policing of their communities. The result of the null hypothesis is not rejected since it showed that there is no significant difference in the mean rating of respondents on the cognitive levels of the leaders to strategically understand the skill needs of the vigilantes to improve community policing in Okene LGA of Kogi State, Nigeria. This finding of the study collaborates with the finding of Ogunlowo (2021), who asserted that Police officers in Lagos State, Nigeria lack information on how to prepare for performance improvement that may enhance their knowledge on the requisite skills needed to protect lives and property in Lagos state Nigeria. Alemika and Chukwuma (2005) noted that as a result of police inefficiency and ineffectiveness in crime prevention and control, detection and apprehension of criminals, poor rule of law records, the violation of human rights, lack of accountability, the public holds the police in low esteem and the fearfulness of their brutality, extortion and ineffectiveness. In addition, the public loss of trust and confidence in the police and in the state, in the face of unrelenting upsurge in violent crimes in the society, led to the advent and formation of informal policing called the vigilantes otherwise known as neighbourhood watch (Abrahansen & Williams, 2015). With this understanding of the deficiencies in the Nigerian police that has equally manifested in the leadership of the CBOs that sustained community policing, the implication is that the current structure of the community policing through the vigilantes could collapse. The need for improvement is therefore glaring based on the upsurge of crimes in the communities of Okene local government area of Kogi State Nigeria.

The findings of the second research questions on the social capital dimensions put in place by the leaders to improve community policing in Okene LGA of Kogi State showed that the respondent disagreed to most of the items on social capital dimensions to sustain community policing. These items include sustainable networks among stakeholders to enhance community policing, mutual trust and strong relationship between the vigilantes and the regular police to help improve community policing. However, the respondents agreed to some few items which include norms and harmonious culture that ensure sustainability of mutual relationship among the stakeholders that enhances cooperation among the stakeholders to improve community policing. The result of the null hypothesis is not rejected since it showed that there is no significant difference in the mean rating of the respondents on the social capital dimensions put in place by the leaders to strategically improve community policing in Okene LGA of Kogi State, Nigeria. Ibeanu (2007), corroborate this findings when he asserted that poor public relations between the police and the hosting community has created a lack of public cooperation, and constitutional problem that put the country's police wholly under the Presidency, and most recently, the poor perception of police by both police officers and the public. These problems have hindered, to a very large extent, the ability of the Nigeria police to perform their functions effectively. The public looks at the police officers with scorn, distrust and suspicion. They do not consider them as friends and allies in the fight against crime but rather as enemies on the side of the criminals (Igbo, 1999). Due to this poor perception of the police, the public are reluctant to provide any form of support or cooperation to the police. This lack of trust in the police often leads to a resolve by the public not to cooperate with them in crime fighting, and sometimes resort to lynching of suspects by angry mobs (Igbo, 2013). Based on the findings of this study, it shows that for various communities to be sustained security wise, the leadership of CBOs has to be strategic in piloting the security situation of their various communities in order to achieve a secured community environment. The results of the two research questions as discussed above complement each other. This is shown by their non-affirmative response to the items in the research questions as shown in the discussion.

Conclusion

Security issues has been a recalling decimal in the life of Nigeria citizens. There has been approaches adopted by stakeholders to bring about lasting solution to the problem of insecurity in our various communities in Nigeria. Hence, this study to explore strategic leadership as a means for improving community policing for sustainable national development in Nigeria. The findings of the study reveal that strategic leadership do not have a valuable domain in the drive towards improving community policing in Nigeria especially in Okene local government of Kogi state. This is why the insecurity situations in Nigeria has been persisting without abating and defying all possible results. The findings show that strategic leadership approach need to be adopted in order to nib in the bud the insecurity situation in our communities which has the propensity to improve community policing. It also shows that neglect of this approach is a means and a breeding space created for insecurity to

thrive in our various communities in Nigeria. This will truncate and retard the much-needed development for sustainable national development in Nigeria. However, achieving this goal may require further research study to determine the capacity building needs of the stakeholders to enhance and to improve community policing/ neighbourhood watch in Nigeria.

Recommendation

Based on the finding of the study, the following recommendations are made.

1. The federal government should expose the Community Based Organisation's leaders with quality training on the skills required by the vigilantes in order to strategically equip them to lead the vigilantes to effectively police their community.
2. The federal government and police service commission should expose the Community Based Organisation's leaders and the vigilantes to further training on social capital dimensions to strategically improve community policing in their various communities.

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FLOOD RISK AWARENESS AMONG COMMUNITY DWELLERS IN PLATEAU STATE, NIGERIA

Izang, Yakubu Dauda & Agbaje, Olaoluwa SamsonDepartment of Human Kinetics and Health Education,
University of Nigeria, Nsukka**Abstract**

The study investigated flood risk awareness, among community-dwelling adults in Plateau State, Nigeria. The study adopted the mixed-methods research design. The sample size for the study consisted of 810 community-dwelling adults and 23 staff of the State Emergency Management Agency (SEMA) in Plateau State. The Flood Risk Awareness Questionnaire (FRAQ) and In-depth Interview Guide on Flood Risk Awareness (IDGFRA) were used for data collection. Face validity of the two instruments (FRAQ and IDGFRA) were established by seven experts. The reliability of coefficients (internal consistency) of Sections B and C of the FRAPQ were determined using the Cronbach's alpha. The reliability of coefficients of .96 and .83 were obtained for sections A and B, respectively. Mean and standard deviation used to answer the research questions. Also, the null hypothesis 2 was tested using independent sample t-test while null hypotheses 1,3,4 and 5 were tested using one-way analysis of variance (ANOVA) at 0.05 level of significance and appropriate degrees of freedom. The quantitative findings showed that community-dwelling adults were aware of flood risk to a moderate extent ($\bar{x} = 2.93$, $SD = 0.77$). There was a significant difference in the extent of flood risk awareness among community-dwelling adults in Plateau State based on age, $F(3,785) = 9.335$, $P = 0.000$; education level $F(3,785) = 9.388$, $P = 0.000$; monthly income level $F(3,785) = 11.626$, $P = 0.000$ and the number of years lived in flood-prone areas, $F(2,786) = 19.987$, $P = 0.000$. The qualitative findings also indicated that many adults were aware of flood risks. Based on the study's findings, it was recommended, among others, that flood risk awareness education campaigns should be intensified at the community levels to improve community-dwelling adults' flood risk awareness levels in Plateau State.

Keywords: Flood, risk awareness, community dwellers

Introduction

Floods are considered one of the deadliest natural disasters and major public health problems affecting diverse populations. Between 1998 and 2017, floods affected more than two billion people worldwide (United Nations [UN], 2020; World Health Organization [WHO], 2020). Therefore, the need to improve flood risk awareness of people living in flood-prone areas becomes important. The significant benefits of high level of risk awareness regarding flooding, as reliable approaches to safety and survival by the populace cannot be overemphasized (WHO, 2020). Flood disasters are increasing in frequency and intensity due to climate change in many parts of the globe including Nigeria (WHO, 2020; United States Department of Labour [USDL], 2020).

In Nigeria, flood disasters have occurred in the past few years. The International Organization for Migration (IOM, 2020) reported that flooding had displaced about 15,000 people in the Northwest and North Central of Nigeria. The IOM (2020) further reported that flooding affected the states of Kaduna, Katsina, Sokoto, Plateau, and Zamfara between the 3rd and 9th of August 2020. For instance, in Katsina State, Baure and Kaita Local Government Areas (LGAs) were reported to be the worst affected by floods in 2020. Additionally, IOM reported that over 18,000 shelters were damaged, and almost 10,000 people were affected, with two persons confirmed dead in Baure. In Kaduna State, two deaths were reported in Jema'A, where flooding damaged approximately 36 shelters and affected over 3,300 people (IOM, 2020). This ugly scenario prompted the Kaduna State government to warn of flooding along the Kaduna River after heavy rainfall. In Sokoto State, flooding was reported in Goronyo LGA, damaging about 100 shelters and affecting over 400 people, while in Zamfara State, floods hit Kaura Namoda and Zurmi LGAs, affecting over 800 people (IOM, 2020). Also, in Plateau

State, about 621 homes were displaced and destroyed by flooding, killing six persons and 832 residents injured (UN, 2020; WHO, 2020).

Floods have been variously conceptualized in literature. Marc and Arretyre (2016) conceived a flood as a body of water covering dry land. The authors explained that floods could contaminate foods and drinking water, adversely affecting structures, houses, animals, and farm products and moving fertile soil away from valuable farmland. Wald (2017) viewed flood as a general and temporary condition of partial or complete inundation of normally dry land areas from overflow of inland or tidal waters from the unusual and rapid accumulation or run-off of surface waters from any source. In this study, flood refers to an overflow of water submerging dry land (United States Department of Labour [USDL], 2020; Federal Emergency Management Agency [FEMA], 2020).

The effects of flood disasters can be grouped into primary and secondary or long-term effects. The direct impact of flooding includes loss of life and damage to buildings and other structures, including bridges, sewerage systems, roadways, and canals. Furthermore, studies (Werner, Hunter & Bates, 2016; Bratkovich & Burban, 2017) have observed that flooding has a direct effect on power transmission and power generation resulting in total loss of power supply, loss of drinking water treatment and water supply resulting in loss of drinking water or severe water contamination, and loss of sewage disposal facilities. There may be increased chances of an outbreak of water-borne diseases such as typhoid, giardia, cryptosporidium, and cholera, due to lack of clean water combined with human sewage in the flood waters.

The secondary or long-term effects of flooding may include economic hardship due to a temporary decline in tourism, rebuilding costs, or food shortages. The impact of flooding on its victims may consist of psychological damage, particularly where deaths, serious injuries, and property loss occur (Wemer et al., 2016). There may be increased cases of indoor mold growth resulting in adverse respiratory symptoms and other health problems (Peters, 2015; Brown & Chanson, 2016). Thus, flood exposure is associated with several risks to man, animals, built and natural environment (United States Department of Environmental Protection, 2015).

Also, flood risk is a combination of the probability (likelihood or chance) of flooding happening and the consequences (impact) if it occurred (Local Government Association, 2023). The consequences of a flood depend on two factors, exposure and vulnerability. Exposure is a measure of the number of people or things that may be affected by a flood while vulnerability is a measure of the potential of people or things to be harmed. Flood risk is dependent on there being a source of flooding, such as a river, a route for the flood water to take (pathway), and something that is affected by the flood (receptor), such as a housing estate (Local Government Association, 2023). In this study, flood risk refers to the combination of likelihood or chance of flooding occurring and associated adverse effects if it occurred.

People's awareness of the risks associated with flooding (i.e., loss of live, damage to properties, destruction of farm produces, contamination of water and increased outbreak of diseases) becomes necessary to prevent or limit the devastating effects of flood disasters in their communities. Risk awareness is defined as an assessment of the probability of a hazard and the results (most often - the negative consequences) perceived by the community dwellers or members (Bubeck, Botzen, & Aerts, 2012; Becker, Aerts, & Huitema, 2014). Becker et al. (2014) viewed risk awareness as interpreting an event based on one or more dimensions of the risk frame, such as the probability of harm, worry of the vulnerability to be harmed, trust in hazard information, and the ability to cope. In this study, risk awareness is assessing and interpreting adverse outcomes of flooding by community-dwellers in Plateau State. Therefore, flood risk awareness is the assessment and interpretation of adverse outcomes of flooding by individuals, agencies, associations or professional bodies. The community-dwellers play significant roles in coping with flooding when their awareness level is high.

Community dwellers' level of flood risk awareness can facilitate planning, preventing or mitigating actions in flood-prone areas. The willingness to adopt precautionary measures is positively related to the residents' level of flood risk awareness (Floyd, Prentice-Dunn & Rogers, 2000; UN, 2020). Studies (Grothmann & Reusswig 2006; Miceli, Sotigu & Settanni, 2008; Terpstra, Lindell & Gutteling, 2009) indicated that adults' low level of risk awareness is responsible for the insufficient or low level of preparedness for flood risks, which in turn generates an inadequate response to flood disasters. A high level of flood risk awareness enhances increased flood risk preparedness and results in maximum flood control and management (United States Department of Environmental Protection, 2015) Risk awareness enhances the adoption of preventive behaviours (i.e., precautionary measures/actions) against natural hazards such as flooding by the residents. The present study examined flood risk awareness, preparedness and enhancement strategies among community dwellers in Plateau State.

High levels of flood risk awareness are crucial in saving lives and properties of flood-prone areas. The government agency for controlling natural disasters and associated problems at the state level in Nigeria is the State Emergency Management Agency (SEMA). The SEMA takes pre-emptive and response actions against natural disasters, including flooding in Plateau State. The State Emergency Management Agency (SEMA) workers are professionals trained in unique disaster management skills in all the states of Nigeria. The activities or operations of workers of SEMA are restricted or limited to the States where they are answerable to the state executive bodies. The SEMA oversees the management, control, and rescue of disaster-affected individuals at the state level (SEMA, 2020). The NEMA Act mandated all states to establish State Emergency Management Agencies while Local governments are to establish Local Emergency Management Committees. The agency also promotes decentralizing disaster risk reduction (DRR) activities at all levels and launches a national multi-sectoral platform for disaster risk reduction. The essence of the efforts mentioned above by SEMA is to ensure the safety of residents of flood-prone areas in the country (FEMA, 2020). Therefore, the community-dwellers in this study are individuals and SEMA workers living in Plateau State.

Certain variables or factors influence the flood risk awareness of adults in flood-prone communities, including those in Plateau State. Studies (Brown, & Chanson, 2016; Ricardo, Hambet, & Davis, 2017; Bratkovich, & Burban, 2017; Mashab, Scarry, & Enerta, 2018; Koch, 2020) conducted on flooding among adults and emergency response workers indicated that certain variables or factors influenced their flood risk awareness and preparedness. Therefore, in this study, variables can influence flood risk awareness of community dwellers in Plateau State. Such variables include age, gender, education level, income level, and the number of years lived in flood-prone areas. However, the present study focused on the demographic variables of age and gender.

The present study was carried out in Plateau State, Nigeria. Plateau State is one of the six North Central Geopolitical Zone states characterized by Hills and Rivers. The state has faulty urban design and planning, and also lacks proper drainages and early warning system and information. Rivers overflow easily due to the activities of the dwellers who do not clear blocked drainages and dump refuse into the rivers. Having adequate flood risk awareness and preparedness by community-dwellers in Plateau State could reduce the loss of lives and damage to properties to the barest minimum.

Statement of the Problem

The safety and survival of persons living in flood-prone areas depend on their flood risk awareness level. Adequate flood risk awareness may enable individuals to prevent and minimize the risks of flooding.

However, recent flooding in many parts of Nigeria, including Plateau State, have caused enormous economic, agricultural, human, and material losses. In addition, floods are associated with a high incidence of communicable and non-communicable diseases, such as diarrhoea and tetanus, as well as gastrointestinal conditions. Other cases include cholera and hepatitis A, and water-borne diseases, as well as dengue fever and malaria,

Furthermore, flood risk awareness could be influenced by certain socio-demographic variables such as age and gender. These variables can positively or negatively influence flood risk awareness among community dwellers in flood-prone areas. Thus, an examination of the influences of these variables on flood risk awareness of adult community dwellers in Plateau State could offer more information on their roles and how to moderate them.

Therefore, the present study examined flood risk awareness among community dwellers in Plateau State. This was the focus of the study.

Purpose of the Study

The study investigated flood risk awareness among community-dwelling adults in Plateau State. Specifically, the study determined the:

1. extent of flood risk awareness among community-dwellers in Plateau State based on age;
2. extent of flood risk awareness among community-dwellers in Plateau State based on gender;

Research Questions

The following research questions guided the study.

1. What is the extent of flood risk awareness among community-dwellers in Plateau State based on age?

2. What is the extent of flood risk awareness among community-dwellers in Plateau State based on gender?

Hypotheses

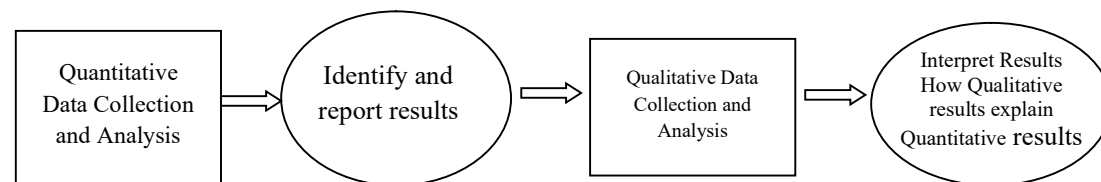
The following null hypotheses were postulated and tested at 0.05 level of significance.

1. There is no significant difference in the extent of flood risk awareness among community-dwelling adults in Plateau State based on age.
2. There is no significant difference in the extent of flood risk awareness among community-dwellers in Plateau State based on gender.

Methods

The mixed-methods research design was adopted. Cresswell and Plano Clark (2018) defined mixed-methods research design as the integration of both quantitative and qualitative designs and methods of data collection and analysis to understand a research problem. Specifically, the present study adopted the sequential embedded mixed-methods design. This design involves a first phase of quantitative design and data collection that is accompanied by a second phase of qualitative design and data collection. Additionally, the qualitative data play a supplemental or supportive role to the quantitative data and augments the conclusions of the quantitative data (Cresswell & Plano Clark, 2018).

Sequential Embedded Design (Two-Phase Design)



Source: Cresswell & Plano Clark (2018)

This study was carried out in Plateau State, Nigeria. Plateau State is made up of Seventeen Local Government Areas and is one of the six states that make up the North Central Geopolitical Zone. The population for the study comprised all the community-dwelling Adults in Plateau State. The population of Plateau State is 3,206,531 (National Population Commission [NPC] & National Bureau of Statistics [NBS], 2021). Further information about Plateau state population by Gender is Males are 1,598,998 while Females are 1,607,533. Population of Plateau by age groups is 0-14 years is 1,411,031, 15-64 years is 1,687,381 while 65 years and above is 108,119 respectively. The population of SEMA staff is 23 (Plateau State SEMA Office, Jos, 2021).

The sample size for the study consisted of 833 respondents. The sample size comprised 810 adults and 23 SEMA workers in Plateau State. Only the adults in Plateau State were surveyed in the present study due to certain factors such as their lived experiences of flooding and the ability to narrate vividly their experiences. The sample size for the quantitative aspect of the study was determined using Leslie Kish's single population proportion formula.

The multi-stage sampling procedure was adopted to select the sample. The first stage included the use of simple random sampling technique of balloting without replacement to sample ten local government areas (LGAs) out of 17 LGAs in Plateau State. In the second stage, a simple random sample technique of balloting without replacement was used to sample one community in each of the sampled ten LGAs in Plateau State. This stage produced a total of ten communities. In the third stage, convenience sampling was used to select 81 adults from the ten communities and the 23 Staff of SEMA. Thus, a total of 810 community-dwelling adults and 23 Staff of SEMA in Plateau state were selected for the study. Purposive sampling technique was used to select 30 adult participants for the in-depth interview. Therefore, the sample size for the present study was 833 respondents.

Two instruments were used for this study. These include a researcher-designed questionnaire titled "Flood Risk Awareness Questionnaire (FRAQ) and In-depth Interview Guide on Flood Risk, Awareness (IDGFRA). The FRAQ is made up of two sections, namely: A and B. The section A elicited information on demographic characteristics of community-dwelling adults in Plateau State such as age, gender, educational level, income level and number of years lived in flood prone areas. The section B contained 20 item statements on flood risk awareness of the adult residents in the flood prone areas. The items of section B were assigned a 4-point Likert type response format ranging from not aware at all (1 point), not aware (2 points), aware (3 points), and very much aware (4 points). The

respondents were asked to place a tick (✓) in the column against the option that best described their flood risk awareness.

The FRAPQ and IDGFRAP were translated into Hausa Language to facilitate comprehension and collection of data from respondents with no formal education or those with poor comprehension of English Language. The translation process from English to Hausa Language followed the guidelines from the WHO (2022).

The qualitative data was collected from 30 participants, comprising 20 adult residents in the ten sampled communities and 10 staff of SEMA using the IDGFRAP.

The returned copies of the questionnaire were examined for correctness and completeness of responses. The correctly completed copies were coded and inputted in the Statistical Package for Social Sciences-(IBM SPSS Version 25 for Windows) for data analysis. Data were analyzed on item-by-item basis using mean and standard deviation for all the research questions while *t*-test (H_{02}) and one-way analysis of variance (ANOVA) statistics (Hypotheses 1,3,4 and 5) were adopted to test the null hypotheses at .05 level of significance. A null hypothesis was rejected when the calculated *p*-value is less than 0.05, however, the null hypothesis was not rejected when the calculated *p*-value is greater than 0.05 level of significance. To determine the extent and level of flood risk awareness and preparedness, the real limits of number was used. Thus, mean scores ranging from 1.00-1.99 was considered low extent of awareness; mean scores ranging from 2.00-2.99 was considered as moderate extent of awareness, mean scores ranging from 3.00-3.49 was considered as high extent of awareness, while mean scores ranging from 3.50-4.00 was considered as very high extent of awareness.

For the qualitative data, inductive thematic analysis was used. The six (6) phases of inductive thematic analysis as described by Braun and Clarke (2006) were employed. First, the data transcripts and filed notes were independently read by the researcher and an expert in qualitative data analysis severally (phase 1) and then initial codes were developed (phase 2). The codes were sorted and grouped into potential categories/themes (phase 3). The themes were expanded to cover the key dependent variable (adoption of flood risk awareness) using the coded data. The next phase, which is phase 4, involved using a theme map to ensure consistency across the transcripts between the researcher and the expert who conducted the qualitative data analysis. Phase 5 involved assigning definition and naming of the themes and sub-themes. Phase six (6) involved using the themes to answer the research questions. All analysis decisions were made through a consensus between the researcher and the expert, and all discrepancies were discussed until consensus was achieved. Credibility, dependability, confirmability, and transferability were conducted to ensure trustworthiness (Creswell and Plano Clark, 2018). The transcribed texts, codes and themes were organized and analyzed using Atlas.ti version 22 developed by the Atlas.ti Scientific Software Development

Results

The findings of the present study are organized based on the research questions and null hypotheses that guided the study.

Research question one: What is the extent of flood risk awareness among community-dwelling adults in Plateau State based on age? Data answering this question are contained in Table 1.

Table 1: Mean Responses on Extent of Flood Risk Awareness among Community-Dwelling Adults in Plateau State based on Age (n = 790)

S/N	Items	Age							
		18-29 years (n=166)		30-39 years (n=235)		40-49 years (n=212)		≥50 years (n=177)	
		\bar{x}	SD	\bar{x}	SD	\bar{x}	SD	\bar{x}	SD
To what extent are you aware that:									
1.	Flooding displaces people from their homes	2.93	.91	2.85	.75	3.06	.71	3.12	.79
2.	Flooding can trigger the chances of increased waterborne disease outbreaks such as typhoid, giardia, cryptosporidium, and cholera	2.71	.76	2.71	.69	2.90	.66	3.06	.82
3.	Domestic and wild animals die due to flooding	2.82	.85	2.82	.79	2.99	.71	3.12	.77
4.	People lost their valuables and properties such as houses and cars during flooding	2.77	.84	2.80	.76	2.92	.64	3.01	.62

5. Agricultural products such as fruits, food items and vegetables are destroyed during flooding	2.88	.86	2.79	.82	2.95	.70	2.99	.64
6. Flooding can lead to complete destruction of the spawning grounds for fish and other wildlife habitats	2.80	.82	2.78	.76	2.88	.66	3.02	.57
7. Building such as houses, shops, offices, etc are lost due to flooding	2.85	.82	2.80	.76	2.93	.71	3.02	.64
8. People lost their lives during flooding	2.97	.92	2.94	.84	3.08	.79	3.29	.75
9. Transportation networks are disrupted during flooding	2.85	.86	2.91	.85	3.00	.67	3.07	.66
10. Flooding destroys infrastructure such as bridge abutments, bank lines, sewer lines and sewage disposal facilities	2.87	.78	2.93	.87	2.98	.70	3.10	.71
11. Flooding leads to soil erosion and concomitant sediment deposition?	2.89	.87	2.89	.82	2.92	.71	3.06	.72
12. Farmlands are damaged during flooding	2.79	.88	2.91	.82	2.96	.64	3.18	.65
13. Flooding leads to impaired waterway navigation and hydroelectric power	2.69	.89	2.88	.78	2.94	.73	3.15	.69
14. Flooding leads to total loss of clean drinking water and lack of water treatment	2.78	.86	2.92	.79	2.95	.71	3.20	.64
15. Economic hardship and starvation are highest during flooding	2.86	.88	2.92	.80	3.01	.67	3.19	.67
16. Flooding leads to temporary decline in tourism experiences	2.72	.86	2.86	.74	2.99	.76	3.14	.72
17. Psychological trauma is very high during flooding	2.77	.82	2.94	.74	3.02	.71	3.07	.72
18. Flooding leads to high growth of indoor mold resulting in adverse respiratory cases	2.64	.88	2.86	.77	2.85	.81	2.84	.82
Cluster Mean	2.81	.85	2.86	.79	2.96	.71	3.09	.70

Note: \bar{x} = Arithmetic mean; SD = Standard Deviation

Guidelines for Interpreting Extent of Flood Risk Awareness

\bar{x} = 1.00-1.99 (Low extent); \bar{x} = 2.00-2.99 (Moderate extent); \bar{x} = 3.00-3.49 (High extent); \bar{x} = 3.50-4.00 (Very high extent)

Results in Table 1 show that overall, community-dwelling adults aged ≥ 50 years were aware of flood risk to a high extent ($\bar{x}=3.09$, $SD=0.70$) while those aged 40-49 years ($\bar{x}=2.96$, $SD=0.71$), 30-39 years ($\bar{x}=2.86$, $SD=0.79$) and 18-29 years ($\bar{x}=2.81$, $SD=0.85$) were aware of flood risk to a moderate extent in Plateau State.

The quantitative findings showed that greater number of the participants in this study were within the ages of 30 to 49 years while lesser proportion were within the ages of 18-29 years and 50 years and above. At the community level, participants aged 50 years and above were aware of flood risks to moderate and high extent. The chronological ages of the participants seemed to influence their flood risk awareness. Interestingly, the participants for qualitative data in all the age categories, especially the SEMA workers/staff were aware of flood risk to a high and moderate extent as indicated below:

Flood risk awareness is when people have knowledge of dangers associated with flooding. The dangers include deaths of people, animals, loss of properties and farmlands (IDI #29, Male; SEMA Staff)

Flood risk awareness implies when heavy water caused by too much rains kill people, animals and destroy crops (IDI #05, Male).

Flood risk awareness means having information about the threats that flooding causes in our community. Examples of such threats or dangers include deaths of people and animals (IDI #13, Male).

Research question two.

What is the extent of flood risk awareness among community-dwelling adults in Plateau State based on gender? Data answering this question are contained in Table 2

Table 2
Mean Responses on Extent of Flood Risk Awareness among Community-Dwelling Adults in Plateau State based on Gender (n= 790)

Gender	Male (n=291)	Female (n=499)				
S/N	Items	\bar{x}	SD	\bar{x}	SD	
To what extent are you aware that:						
1.	Flooding displaces people from their homes	3.11	.83	2.90	.75	
2.	Flooding can trigger the chances of increased waterborne disease outbreaks such as typhoid, giardia, cryptosporidium, and cholera	2.9	0.74	2.80	.74	
3.	Domestic and wild animals die due to flooding	3.01	.79	2.89	.78	
4.	People lost their valuables and properties such as houses and cars during flooding	2.92	.71	2.85	.73	
5.	Agricultural products such as fruits, food items and vegetables are Destroyed during flooding	3.00	.75	2.84	.76	
6.	Flooding can lead to complete destructions of the spawning grounds for fish and other wildlife habitats	2.91	.73	2.84	.70	
7.	Building such as houses, shops, offices, etc are lost due to flooding?	2.94	.73	2.87	.74	
8.	People lost their lives during flooding	3.17	.84	3.00	.83	
9.	Transportation networks are disrupted during flooding	3.02	.77	2.92	.77	
10.	Flooding destroys infrastructure such as bridge abutments, bank lines, sewer lines and sewage disposal facilities	3.00	.75	2.95	.79	
11.	Flooding leads to soil erosion and concomitant sediment deposition	3.01	.77	2.89	.79	
12.	Farmlands are damaged during flooding	3.04	.78	2.91	.75	
13.	Flooding leads to impaired waterway navigation and hydroelectric power	2.95	.74	2.90	.81	
14.	Flooding leads to total loss of clean drinking water and lack of water treatment	2.97	.71	2.96	.80	
15.	Economic hardship and starvation are highest during flooding	3.04	.69	2.97	.81	
16.	Flooding leads to temporary decline in tourism experiences	2.90	.72	2.95	.83	
17.	Psychological trauma is very high during flooding	2.92	.71	2.98	.78	
18.	Flooding leads to high growth of indoor mold resulting in adverse respiratory cases?	2.68	.81	2.88	.82	
Cluster Mean		2.97	.75	2.91	.73	

Note: \bar{x} = Arithmetic mean; SD = Standard Deviation

Guidelines for interpreting Extent of Flood Risk Awareness

\bar{x} = 1.00-1.99 (Low extent); \bar{x} = 2.00-2.99 (Moderate extent); \bar{x} = 3.00-3.49 (High extent); \bar{x} = 3.50-4.00 (Very high extent)

Source: Researcher.

Results in Table 2 show that overall, both male (\bar{x} = 2.97, SD = 0.75) and female (\bar{x} = 2.91, SD = 0.73) community-dwelling adults were aware of flood risk to a moderate extent in Plateau State. The qualitative findings indicated that male and female participants' extent of flood risk awareness in Plateau State did not differ. Many male and female participants in this study were aware of flood risks while some participants regardless of gender seemed not to be aware of the risks associated with flooding. In response to the question, a male and female participants exemplified here:

Flood risk awareness means that a person has knowledge ...that flooding can cause dangers to people. These include diseases such as malaria, diarrhoea, typhoid fever, cholera, and deaths (IDI #12, Male).

Flood risk awareness is when people have information about the negative effects of flooding on the people (IDI #23, Female).

Hypothesis one: There is no significant difference in the extent of flood risk awareness among community-dwelling adults in Plateau State based on age. Data testing the hypothesis are contained in Table 3.

Table 3: Summary of One-way ANOVA Showing Difference in the Extent of Flood Risk Awareness among Community-Dwelling Adults in Plateau State based on Age ($n = 790$)

Variable	Sum of Squares	df	Mean Square	F	P-value
Between Groups	13.502	3	4.501		
Within Groups	378.078		786	0.481	9.357
Total	391.984		789		0.000

Note. *Df*= degree of freedom; *F*= *F*-ratio/value
Significant at $P < 0.05$.

Table 3 shows the results of one-way ANOVA conducted to examine difference in the extent of flood risk awareness among community-dwelling adults in Plateau State based on age. The result show that there was a significant differences in the extent of flood risk awareness among community-dwelling adults in Plateau State based on age, $F(3,786) = 9.357$, $P = 0.000$. The post-hoc comparison using Scheffé's test showed that the mean flood risk awareness score for adults aged 18-29 years ($\bar{x} = 3.61$; $SD = 0.89$) was significantly different from adults aged 40-49 years ($\bar{x} = 3.71$; $SD = 0.58$) and those aged 50 years and above ($\bar{x} = 3.97$; $SD = 0.55$). The mean difference scores are -0.203 and -0.365 for adults aged 40-49 years and those aged ≥ 50 years, respectively. Age group 20-39 years did not differ significantly from either age group 18-29 years, 40-49 years or ≥ 50 years. Since the p-value is less than 0.05 level of significance, the null hypothesis was rejected. This implies that community-dwelling adults differed in their extent of flood risk awareness based on age. The finding was anticipated and, therefore, not a surprise. This is because the community dwellers, regardless of age, might have experienced flood risks to a measurable extent. Although, older residents, that is, ≥ 50 years, reported a high level of awareness of flood risks compared to their counterparts of other age categories. The finding may suggest that older community-dwelling adults than younger adults who have experienced flood-related dangers ranging from the loss of human lives to damage to properties, agricultural products, transportation networks, and disease outbreaks in the community appreciate flood risks. The findings agree with those of Marfai, Sekaranom, and Ward (2015), who reported that older community-dwelling adults showed very high responses and adopted more adaptation strategies for flooding compared to the younger age cohorts in Jakarta, Indonesia. Similarly, the finding aligns with those of Hernández-Guerrero, Vieyra-Medrano, and Mendoza (2012), who reported that the adaptation strategies in communities under precarious housing for flooding risks in the Peri-urban sector of the city of Morelia, Michoacán, México was high among older residents when compared to younger adults.

Hypothesis two: There is no significant difference in the extent of flood risk awareness among community-dwelling adults in Plateau State based on gender. Data testing the hypothesis are contained in Table 4.

Table 4: Summary of Independent-Sample t-Test of Difference in the Extent of Flood Risk Awareness among Community-Dwelling Adults in Plateau State based on Gender ($n = 790$)

Variable	N	\bar{x}	SD	SEM	t-cal	df	P-val.	LB	UB
Gender									
Male	291	3.18	0.71	0.04					
Female	499	3.74	0.71	0.03	1.564	788	0.118	-0.02	0.18

Note. \bar{x} = mean, *SD* = Standard deviation; *S.E.M* = Standard error of mean; *p-val.* = *p*-value

Significant at $P < 0.05$.

Table 4 shows the results of independent-sample t-test conducted to examine difference in the mean scores on extent of flood risk awareness for males and females in Plateau State. There was no significant difference in the mean scores on extent of flood risk awareness among community-dwelling adults based on gender, $t(788) = 1.564$, $P = 0.118$. The magnitude of the difference in the mean scores (mean difference = 0.07, 95% C.I. -0.02 to 0.18) was very small. Since the p-value was

greater than 0.05 level of significant, the null hypothesis was not rejected. This implies that male and female community-dwelling adults did not differ in their extent of flood risk awareness.

Findings in Table 4 indicated that male and female community-dwelling adults were aware of flood risks to a moderate extent in Plateau State. The findings in Table 4 showed no significant difference in the extent of flood risk awareness among community-dwelling adults based on gender. The findings are expected. They demonstrate that both male and female adult members in the community are aware of the dangers of flooding. The findings imply that all the community dwellers, regardless of gender difference, would engage in flood-related activities since their awareness level is commendable. The finding could be attributed to specific life-changing experiences and flood encounters, which might negatively affect every community member. Thus, such a dissatisfying experience usually serves as a deterrent to individuals devoid of gender category. Following other findings, Bratkovich and Burban (2017) reported that the male and female respondents viewed flooding and its effects on trees differently. Similarly, Koch (2020) reported that males were more prepared than female family members to respond effectively to flooding. The discrepancies in the findings could be attributed to study locations and the type of study designs used.

Conclusion

The findings showed that community-dwelling adults were aware of flood risk to a moderate extent. The findings of the study provided crucial insight into the flood risk awareness of community-dwelling adults in Plateau State, which were moderate. Thus, there is a need for concerted efforts by public health educators, environmental health experts, and other experts to collaborate and implement education or awareness programmes that promote flood risk awareness of adults in Plateau State. Such programme if effectively implemented, hopefully, will enable community-dwellers mitigate flood-related risks.

Recommendations

Based on the findings of the study and conclusions drawn, the following recommendations were made:

1. Flood risk awareness education campaign should be intensified at the community levels in Plateau State in order to improve their flood risk awareness status.
2. The SEMA staff in collaboration with the community members should maintain consistent supervision of the areas that are mostly affected by flooding. Such monitoring would be instrumental in monitoring the geographical as well as environmental changes in the state.
3. There is need for research funding and grants for people as well as SEMA staff in Plateau State to enable them to come up with local content and sustainable strategies for flood control, management and prevention in the state.

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TEACHERS' ASSESSMENT OF SECONDARY SCHOOL STUDENTS' CHARACTERISATION LEVEL OF AFFECTIVE BEHAVIOURAL OUTCOME IN MATHEMATICS IN NSUKKA EDUCATION ZONE OF ENUGU STATE

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Abstract

This study investigated teachers' assessment of secondary school students' characterisation level of affective behavioural outcome in mathematics in Nsukka Education Zone of Enugu State. Two research questions were answered while one null hypothesis was tested at 0.05 level of significance. The research was conducted using a descriptive survey research approach. One hundred and sixty mathematics teachers in Nsukka Education Zone made up the population. The sample was drawn from the entire population. Because the study's population was small, this was possible. Teachers' Assessment of Students' Characterisation Level of Affective Behavioural Outcome Questionnaire was used to collect data in this study (TASCLABOQ). Three specialists from the Department of Science Education, University of Nigeria Nsukka validated the instrument. Cronbach Alpha reliability tests produced reliability coefficients of 0.78. The research questions were answered using mean and standard deviation, and the null hypothesis was tested using analysis of variance (ANOVA) at a significance level of 0.05. The findings among other things revealed that: teachers' assessment of students' characterisation level of affective behavioural outcome in Nsukka Education Zone is of low extent. The result also revealed that teachers' assessment of characterisation level of students' affective behavioural outcome based on teachers' year of experiences is not statistically significant. Based on the findings of the study, it was recommended among others that government should organize seminar and workshop for teachers to educate them on the proper way of assessing students' affective outcome in mathematics as this will help in improving the competence of teachers towards assessment of the entire behavioural outcome especially affective domain".

Keyword: Teachers, Assessment, Secondary, School, Students', Characterisation, Affective, Behavioural, Outcome, Mathematics

Introduction

Nations all over the world accorded priority to education sector. Education is the process of developing the cognitive, affective and psychomotor behavioural outcomes of students in order to equip them with the knowledge and skills necessary to survive and make progress in the human society. The goal of schooling is to modify children's behaviour toward accomplishing national goals by exposing them to specific experiences through methodical presentation of skills, attitudes, concepts, and principles through the various courses offered in the curriculum. One of the subjects that is seen as the language of science and technology is mathematics (Olubukola, 2015). Ideally, no nation can develop without integrating mathematics properly into her national life.

Mathematics is a core science course that found expression in the social, political, scientific, and technological development of Nigeria. It's the branch of science that studies the logic of form, quantity, and order. According to Petti (2015), mathematics is a science of patterns that includes patterns of reasoning and communicating, patterns of motion and change, patterns of shape, patterns of symmetry and regularities, and patterns of position. Indeed no nation that wants to develop scientifically and technologically neglects the mathematical component of her school curriculum. Because of the importance of mathematics, the Federal Government of Nigeria made it a compulsory subject at primary and secondary school and basic requirement for admission into higher institution. It is prime instrument for exploring our scientific, economic and social world. The pertinent virtue of mathematics as well as its contribution to the development of mankind has earned the subject

the prominence it enjoys among other subjects. Agwagah(2013) states that mathematics forms the foundation of solid education and tone of modern society. Hence, mathematics permeates the entire society, for which reason it becomes necessary for everyone to have mathematical skills to function intelligently in today's world. And this can be achieved through mathematics education.

Mathematics education encompasses both the activity of teaching and learning mathematics as well as the research that is associated to it. According to Lawal (2017), mathematics education is the transfer of mathematical ideas with the goal of imparting appropriate mathematical knowledge, comprehension, and abilities to a wide range of students and other subjects. With reference to scholarly research, the central objective of mathematics education is to enhance students' mathematics literacy, with an emphasis on problem solving, reasoning, and communication through teaching and learning of mathematics (Reys, 2010). To achieve these objectives, mathematics teachers should teach mathematics for its comprehension, as well as to encourage the learner's positive attitude towards it, and acceptance of it as a useful or dependable channel towards their development into useful and responsible citizens in the society.

In spite of the objectives of mathematics at secondary school level, mathematics education has faced challenges that have become topic of discussion among stakeholders. One of the challenges often being discussed is students' poor achievement in mathematics examinations. Students' achievement in mathematics has been an issue bothering the minds of individuals, stakeholders, government agencies and society at large. According to Uka, Iji, and Ekweme (2012), mathematics education in Nigeria is still lacking, particularly in terms of students' achievement. Despite the fact that research has been undertaken on how to improve students' mathematics achievement (Olanipekun & Aina 2014; Ukwueze, 2017), the failure rate of students in mathematics continues to rise. The poor achievement in mathematics could be associated with some factors such as students' factor, teachers' factor, mathematics anxiety, class size, government factor, infrastructural difficulty, instructional technique, and so on (Akinsola, 2011). Studies have considered each of these factors as the major constraints that contribute to students' poor achievement. It is observed that one key factor of students' poor achievement in mathematics examination which is often neglected is the issue of assessment of all domains of behavioural outcomes of students. Majority of teachers focus only on assessment of cognitive domain neglecting or assigning values arbitrarily to psychomotor and affective domains.

Assessment is critical to a person's and, of course, a nation's educational development. Assessment, according to Owolabi and Olasehinde-William (2007), is a quality control method for determining the level of accountability displayed by industry stakeholders, as well as determining the effectiveness of teaching and learning and determining students' achievement. Assessment also includes a teacher's assessment of a student to determine whether the student has learnt what he or she should have learnt in a course. Continuous assessment is a regular, cumulative, and comprehensive assessment process. Continuous Assessment (CA) is a system of assessment in education that considers a student's whole experience and achievement throughout their school career (Nworgu, 2015). The whole experience and achievement are the three domains- cognitive, affective, and psychomotor domains.

The cognitive domain comprises goals related to thinking, memory, knowledge, and problem solving. Knowledge, comprehension, application, analysis, synthesis, and evaluation are the six stages of Bloom's cognitive domain (Krathwohl, Bloom & Masia, 1964). Lorin Anderson, a former Bloom student, and David Krathwohl updated each stage as follows in the late 1990s: remembering, understanding, applying, analyzing, evaluating, and creating (Donald, 2015). The psychomotor domain includes tasks involving muscular and motor skills, material and object manipulation, and activities involving muscular coordination. Reflex movement, basic fundamental motions, perceptual capacities, skillful movement, and non-discourse communication are all categories of aims in the psychomotor domain. The objectives in the affective domain are those that have to do with emotional states and the degree of acceptance or rejection. Receiving, responding, valuing, organizing, and characterisation are the five degrees of understanding within the affective domain (Krathwohl, Bloom & Masia, 1964).

The assessment considers a student's entire performance in the cognitive, affective, and psychomotor domains of behaviour. Unfortunately, most teachers continue to focus solely on the cognitive domain, implying that the students' overall competence may not be assessed. This has seriously implicated the skills of mathematics teachers as evaluators. This is because teachers assign values arbitrarily and haphazardly while assessing psychomotor and affective domains. That is why this study found the extent to which mathematics teachers assess secondary school students' affective behavioural outcome in mathematics. The reason for this study on this level of affective behaviour is because students' emotional state is a big factor in their learning process. Changes in affective

component, produces changes in both cognitive and psychomotor components. Affective behaviour may hinder or promote learning especially in mathematics. As earlier stated Krathworhl, Bloom and Masia (1964) described the affective domain as falling into characterisation.

Characterisation entails functioning consistently in accordance with a set of internalized ideals as well as a life philosophy. Internalising value is what characterisation is all about. In essence, the students absorb values and allow them to control or steer their actions. Learning outcomes at this level cover a broad range of activities, but the major emphasis is on the fact that the behaviour is typical. Instructional objectives in this level of affective behavioural outcome are students' general patterns of adjustment (personal, social, emotion). Internalize, verify, revise, require, avoid, resist, manage, resolve, act, distinguish, display, influence, alter, perform, practice, propose, qualify, question, serve, and solve are some examples of action verbs. Specific goals include demonstrating self-reliance while doing mathematics issues independently, demonstrating self-discipline in mathematics classes, and cooperating with classmates when solving mathematics problems.

The reasons why teachers do not usually assess this level of affective behavioural outcomes of students, could be due to the invisibility of changes in students' morals, values, attitudes, likes, dislikes, and sentiments. As a result, recording and evaluating them becomes challenging. Teaching experience has also been identified as a factor that controversially influences teachers' performances. Teachers may have varied teaching experiences. According to Okafor (2010), there was a substantial difference in mean mastery scores between experienced and less experienced teachers, with experienced teachers outperforming less experienced teachers. However, it is still unclear whether teaching experience has an impact on extents mathematics teachers assess secondary school students' characterisation level of affective behavioural outcome in mathematics. The main purpose of the study was to investigate teachers' assessment of secondary school students' characterisation level of affective behavioural outcome in mathematics. Specifically, the study found out the:

1. extent to which Mathematics teachers assess students' characterisation level of affective behaviour
2. influence of years of experience on the extent to which mathematics teachers assess secondary school students' characterisation level of affective behavioural outcomes in mathematics.

Research Questions

The study was guided by the following research questions:

1. What is the mean rating score of mathematics teachers on their assessment of characterisation level of affective behavioural outcome in mathematics in Nsukka Education Zone?
2. What is the influence of mathematics teachers' years of experience on their assessment of characterisation level of affective behavioural outcome in mathematics in Nsukka Education Zone?

Hypothesis

The following hypothesis guided the study, and was tested at 0.05 level of significance:

H₀₁: There is no significant difference in the mean rating score on the extent of mathematics teachers assess secondary school students' characterisation level of affective behavioural outcome in mathematics based on years of experience.

Method

The study was conducted using a descriptive survey research approach. This study was carried out with secondary school mathematics teachers in Nsukka Education Zone of Enugu State. The education zone is situated in Enugu North senatorial district. Nsukka Education zone comprises of three local government areas (LGA) namely; Igbo-Etiti LGA with 15 secondary schools, Nsukka LGA with 31 secondary schools, and Uzo-Uwani LGA with 14 secondary schools. The population of this study consisted of all the one hundred and sixty (160) mathematics teachers in Nsukka Education Zone. In Nsukka Education Zone, there are 90 mathematics teachers in the 31 secondary schools in Nsukka local government area, 40 mathematics teachers in the 15 secondary schools in Igbo-Etiti local government area and 30 mathematics teachers in the 14 secondary schools in Uzo-uwani local government area. (Statistics Office, PPSMB, Nsukka Education Zone). The sample size of the study comprised one hundred and sixty (160) mathematics teachers in Nsukka Education Zone. So, no sampling was carried out. This is because the population of the study is a manageable size.

The instrument for this study was a structured questionnaire titled “Teachers’ Assessment of Students’ Characterisation Level of Affective Behavioural Outcome Questionnaires” (TASCLABOQ). The questionnaire was structured on a 4-point rating scale of: “Very High Extent (VHE), High Extent (HE), Low Extent (LE) and Very Low Extent (VLE)” with corresponding values of 4, 3, 2, and 1 respectively. The instrument was subjected to face validation in order to determine its validity. Three experts in Science Education, one from the mathematics unit and two from the measurement and evaluation unit, validated the instrument in terms of the items’ appropriateness and usefulness for the study. To ascertain the reliability of the instrument, it was trial tested using 30 respondents in a Secondary School in Obollo-Afor Education Zone of Enugu State. The reason for using the above education zone was that the respondents share the same characteristics with those that would be used for the study but in another zone. The reliability of the instrument was calculated as 0.84. The instrument was administered to the respondents (mathematics teachers) in each school. This was done by the researcher and six (6) research assistants, two from each L.G.A in the three L.G.As in Nsukka Education Zone. The instrument was collected by the person that administered them on the spot. This was done to ensure an immediate retrieval after completion by the teacher thus enhancing high rate of return of the questionnaire. The research questions were answered using mean and standard deviation. Interpretation criteria: Very High Extent (VHE) equals 3.50 - 4.00, High Extent (HE) equals 2.50 - 3.49, Low Extent (LE) equals 1.50 - 2.49 while Very Low Extent (VLE) equals 1.00 - 1.49. The hypotheses were tested at 0.05 levels of significance using Analysis of Variance (ANOVA).

Results

The results for this study were obtained based on the research questions answered. The responses to research questions are presented in tables 1 to 2 and hypotheses are in tables 3 as follows:

Research Question One: What is the mean rating score of the extent of mathematics teachers’ assessment of secondary school students’ characterisation level of affective behavioural outcome in mathematics in Nsukka Education Zone?

Table 1: Mean rating score and standard deviation of the extent of mathematics teachers’ assessment of secondary students’ characterisation level of affective behavioural outcome in mathematics (n=160)

SN	Item Statement: Mathematics teachers can:	\bar{X}	SD	D
1.	Identify students who demonstrate self-reliance in working independently in solving mathematics problem	2.02	.77	LE
2.	Determine students who cooperate with their fellows during problem solving in mathematics	1.92	.73	LE
3.	Identify students who use the best approach in solving problems in mathematics	2.09	.75	LE
4.	Identify students who demonstrate self-discipline in mathematics classes	2.06	.81	LE
5.	Determine students’ punctuality to mathematics lessons	1.62	.74	LE
6.	Identify students who show politeness in explaining solutions to mathematics problems	1.88	.83	LE
	Grand Mean	1.93	.47	LE

Result in Table 1 shows the extent of mathematics teachers’ assessment of secondary students’ characterisation level of affective behavioural outcome in mathematics. The result indicates that the mean rating score of teachers for all the items (1-6) fall within the range of 1.50-2.49, which can be adjudged that mathematics teachers identify students who demonstrate self-reliance in working independently in solving mathematics problem, determine students who cooperate with their fellows during problem solving in mathematics, among others, to a low extent. Moreover, the grand rating mean of ($\bar{X} = 1.93$, $SD = 0.47$) obtained also fall within the range of 1.50-2.49, which implies that there is low extent of mathematics teachers’ assessment of secondary students’ characterisation level of affective behavioural outcome in mathematics.

Research Question Two: What is the influence of years of experience on the extent of mathematics teachers’ assessment of secondary school students’ characterisation level of affective behavioural outcome in mathematics in Nsukka Education Zone?

Table 2: Mean rating score and standard deviation of the influence of years of experience on the extent of mathematics teachers' assessment of secondary school students' characterisation level of affective behavioural outcome in mathematics (n=160)

S/ N	Item Statement: Mathematics teachers can:	Teachers' Experience								
		1-10years (n=77)			11-20years (n=66)			20 years and above(n=17)		
		\bar{X}	SD	D	\bar{X}	SD	D	\bar{X}	SD	D
1.	Identify students who demonstrate self-reliance in working independently in solving mathematics problem	2.08	0.77	LE	1.91	0.70	LE	2.18	0.95	LE
2.	Determine students who cooperate with their fellows during problem solving in mathematics	2.01	0.68	LE	1.79	0.70	LE	2.00	0.61	LE
3.	Identify students who use the best approach in solving problems in mathematics	2.06	0.83	LE	2.05	0.67	LE	2.35	0.61	LE
4.	Identify students who demonstrate self-discipline in mathematics classes	2.03	0.86	LE	2.06	0.80	LE	2.18	0.64	LE
5.	Determine students' punctuality to mathematics lessons	1.62	0.69	LE	1.45	0.77	LE	2.24	0.56	LE
6.	Identify students who show politeness in explaining solutions to mathematics problems	1.99	0.88	LE	1.64	0.74	LE	2.35	0.61	LE
Grand Mean		1.97	0.46	LE	1.89	0.48	LE	2.02	0.36	LE

Key: n= Number of respondents, \bar{X} = Mean, SD = Standard Deviation, D.=Decision.

Result in Table 2 shows the influence of years of experience on the extent of mathematics teachers' assessment of secondary school students' characterisation level of affective behavioural outcome in mathematics. The result shows that the mean rating score for all the items (1-5) as rated by teachers who have 1-10 years of teaching experience, 11-20 years and 21 years and above teaching experiences respectively, were within the range of 1.50-2.49. The implication of this result is that the teachers irrespective of their years of experience identify students who demonstrate self-reliance in working independently in solving mathematics problem, determine students who cooperate with their fellows during problem solving in mathematics, among others to a low extent. The grand mean rating of 1.97 with a standard deviation of 0.46 obtained for teachers with 1-10 years of teaching experience, and a mean of 1.89 with a standard deviation of 0.48 for those with 11-20 years of teaching experience and a mean 2.02 with a standard deviation of 0.36 obtained for teachers with 21 years and above teaching experience also fall within the range of 1.50-2.49. This result shows that teachers with 21 years and above teaching experience had a slightly higher mean, followed by those with 1-10 years experience and those with 11-20 years of teaching experience. Based on this result, it is understood that there is a little influence of years of experience on the extent of mathematics teachers' assessment of secondary school students' characterisation level of affective behavioural outcome in mathematics.

H₀₁: There is no significant difference in the mean rating score of the extent of mathematics teachers' assessment of secondary school students' characterisation level of affective behavioural outcome in mathematics based on years of experience.

Table 3: ANOVA analysis of the difference in the mean rating score of the extent of mathematics teachers' assessment of secondary school students' characterisation level of affective behavioural outcome in mathematics based on years of experience

	Sum of Squares	Df	Mean Square	F	Sig.	Dec.
Between Groups	2.347	2	1.173	5.608	.094	NS
Within Groups	32.846	157	.209			
Total	35.193	159				

Key: *df* = degree of freedom, *F* = ANOVA test statistic, *Sig.* = Significant level/Exact probability value, *Dec.* = Decision, *NS* = Not Significant

Result in Table 3 shows that an F-ratio of 5.608 with associated or exact probability value of .094 at (2, 159) degrees of freedom was obtained with respect to the difference in the mean rating score of the extent of mathematics teachers' assessment of secondary school students' characterisation level of affective behavioural outcome in mathematics based on years of experience. Given that the associated or exact probability value of 0.094 when compared with 0.05 (a priori value), was found not significant because it is greater, thus, the null hypothesis one (H_{01}) was not rejected. Hence, the conclusion drawn is that there is no statistically significant influence of years of experience on the extent of mathematics teachers' assessment of secondary school students' characterisation level of affective behavioural outcome in mathematics.

Discussion of Findings

Result revealed that mathematics teachers' assessment of students' characterisation level of affective behaviour in Nsukka Education Zone is to a low extent. These include; identifying students who demonstrate self-reliance in working independently in solving mathematics problem, determining students who co-operate with their fellow during problem solving in mathematics, identifying students who use the best approach in solving problems in mathematics, identifying students who demonstrate self-discipline in mathematics classes, determining students' punctuality to mathematics lessons and identifying students who shows politeness in explaining solutions to mathematics problems. The finding of the study is corroborating with Omare and Iyanu (2006) who revealed that teachers' overall effective evaluation competence were below the acceptance level. "The need of intensify the development of effective teaching skill in teacher education was recommended.

Results showed that there was a little influence of years of experience on the extent to which mathematics teachers assess secondary school students' characterisation level of affective behaviour outcomes in mathematics. The observed little influence implies that it is difficult for mathematics teachers, irrespective of years of experience, to assess some of the secondary school students' characterisation level of affective behaviour because affective objectives which border mainly on change behavioural patterns and otherwise do not easily come by. The finding from the test of hypothesis showed that the difference in the ratings mean of the three groups of respondents, (i.e., 1 – 10 years; 11 – 20 years; 20 – above years) on the extent of mathematics teachers' assessment of secondary school students' characterisation level of affective behaviour is not statistically significant. This implies that the groups of respondents hold the same opinion on the extent of assessment of students' characterisation level of affective behaviour. The result of the study is not in agreement with Martin, Yin, and Mayall (2006) who found that experienced teachers managed their classrooms more effectively than less experienced teachers by taking more control than the novice teachers in establishing classroom routines and monitoring group work. But for the finding of this study, experience teachers and inexperience teachers were the same in the assessment of characterization level of affective domain. The reason for the disagreement may be due to the difference in the domain of behavioural outcome being assessed. The overall finding of this study therefore shows that the influence of teachers' years of experience on the assessment of secondary school students' characterisation level of affective behaviour is of low extent.

Conclusion

"Based on the findings of this study, the following conclusions were drawn. Mathematics teachers' assessment of characterisation level of students' affective behavioural outcome in Nsukka Education Zone is to a low extent." Hence, the said levels of affective domain are not usually assessed properly the way it should be by the mathematics teachers.

Furthermore, the teachers' assessment of students' characterisation affective behavioural outcome in mathematics based on years of experience in Nsukka Educational Zone is not statistically significant. Therefore, the researcher concludes that the number of years a mathematics teacher had put in teaching mathematics in secondary school does not make him /her knowledgeable to assess affective domain behaviours properly.

Recommendations

Based on the findings and discussions, the following were recommended:

1. The teachers who are the curriculum implementers and evaluators should acknowledge assessment of all domains especially affective domain as part of teaching and learning and also be sensitive to students' emotion while carrying out their duties.
2. The students should give their maximum co-operation to the teachers regardless of their year in the job when assessing them knowing that they are at the receiving end of any positive change in Education.
3. The government should organize seminar and workshop for teachers to educate them on the proper way of assessing affective outcome in mathematics as this will help in improving the competence of teachers towards assessment of the entire behavioural outcome especially characterisation level.

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**AWARENESS OF CAUSES AND EFFECTS OF CLIMATE CHANGE
AMONG SENIOR SECONDARY SCHOOL STUDENTS IN NSUKKA
LOCAL GOVERNMENT AREA, ENUGU STATE**

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Abstract

The study investigated awareness of causes and effects of climate change among senior secondary school students in Nsukka Local Government Area. Two research questions and four null hypotheses guided the study. The study adopted the descriptive survey research design. The study was conducted in Nsukka Local Government Area. The population for the study comprised 1864 senior secondary two (SS 2) students in Nsukka Local Government Area. Simple random sampling technique was used to sample students comprising 286 female students and 114 male students, 218 science students and 182 arts students. A structured questionnaire titled Awareness of Causes and Effects of Climate Change Scale was used for data collection. The instrument was face validated by three experts. Cronbach's Alpha method was used to establish the reliability of the instrument, which yielded a reliability coefficient of 0.86. Data collected were analyzed using frequency and percentage for the research questions while t-test was used to test the null hypotheses. The findings showed that secondary school students in Nsukka Local Government Area are not aware of the causes and effects of climate change. There was no significant difference between the male and female students' awareness of the causes and effects of climate change score, while there was a significant difference between the arts and science students' awareness of the causes and effects of climate change score. Based on the findings of the study, it was recommended that curriculum planners should infuse more climate change education contents for the senior secondary school education into the relevant subjects that could increase students' awareness on the causes and effects of climate change. Also, to increase students' awareness and information about climate change, climate change education should be integrated into the art student curriculum, such as incorporating the themes of climate change and environmental safety when students study literary texts, language texts, novels and films among others.

Keywords: Climate Change, Awareness, Causes, Effects

Introduction

Climate change is one of the most important environmental issues facing the world today. It is unequivocal and occurring at an alarming price, according to evidences available (Inter-Government Panel on Climate Change, 2018). Changes in average conditions of the climate, its variability and extreme events constitute climate change. It is a long term change in weather conditions recognized by temperature change, rate of precipitation, wind speed and pattern and other indicators (Haq& Ahmed, 2020). Climate change is the average seasonal change in weather over a long period of time (Ezeudu, Ezeudu& Sampson, 2016). It is the significant and measurable change of the global temperature which is believed to be rather on the increase. Climate change describes any kind of change in climate which may be natural or human- induced. Jan (2015) opined that climate change is any long-term change in the patterns of average weather of a specific region or the earth as a whole. Climate change is the abnormal variation in the earth's climate and weather for a long period of time. The IPCC, (2014) defined climate change as statistically significant variations in climate that persist for an extended period, typically decades or longer. Cook (2019) posited that climate change is simply a change in the climate condition of the world and the change is found by the scientists and other concerned agencies to be on the increase line. A long term measurable change in the elements of climate tending towards extreme is climate change.

Climate change is stirred by two fundamental agents which are human (anthropogenic) and nature. The earth's climate is dynamic and always changing through a natural cycle. However, what the world is more worried about is that the changes that are occurring today have been speeded up because of human activities (Thackeray, 2020). Similarly, Glick (2019) remarked that human have been changing their environment in very significant ways ever since they learnt how to hunt with weapons, domesticate animals and farm crops, in addition to human modernized transportation and industrial system, which facilitate easy movement and production.

Human activities especially combusting of fossil fuels (coal, oil and natural gas) to make electricity and power vehicles, clearing forests for farms and cities among others causes climate change. Consequently, these activities increase the concentrations of Green House Gases (GHG) (Akpomi & Vipene, 2016). According to Blumenfeld (2019), greenhouse gases mean the gases that contribute to the greenhouse effect by absorbing infrared radiation. The main greenhouse gases are water vapor (H^2O), carbon dioxide (CO^2), methane (CH^4), nitrous oxide (N^2O), and fluorinated gases such as halocarbons, hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6). These gases having been accumulated in the atmosphere, allow radiation from the sun to pass through but trap some of the heat radiating back from the earth. This is called the "greenhouse effect" because the principle is similar to a greenhouse, where the glass roof allows sunlight in but traps heat for growing plants (Prevedello, Winck, Weber, Nichols, & Sinervo, 2019). The natural causes include changes in the earth orbit and spin, variations in solar activity and volcanic activities (Hegerl, Brönnimann, Cowan, Friedman, Hawkins, Iles, Müller, Schurer, Undorf, 2019).

The impacts of climate change are felt globally and disproportionately. Climate change has devastating impacts on living standards, health and well-being, habitats and species, utilities, facilities, and economic, social, and cultural assets that can have positive or negative consequences (Global climate action, 2019). Climate change phenomenon has serious consequences for the earth such as significant variations in regional climates, recurrent droughts, excessive heat waves, windstorms, among others. In Nigeria, the noticeable consequences of climate change include intense thunderstorms, widespread floods and incessant droughts, desertification, temperature rise, low agricultural yield and dry up of water bodies (Ovuyowiroye, 2013). Badjie, Yaffa, Sawaneh and Bah (2019) disclosed that climate change impacts pose great dangers with consequences such as desertification, sea level rise, flooding, water salination, among others. These impacts could manifest in food security challenges, damage to infrastructure and social dislocation. Additional impacts include threat to health as rising temperature could bring about diseases such as chronic heat rashes, Cerebra-Spinal Meningitis (CSM), stroke, malaria and other related diseases. Climate change will affect every citizen, every part of the environment, the natural resources, and thus practically every aspect of human life, the economy, the urban and sub-urban development patterns (Ekpoh & Ekpoh, 2011). The resilience of natural, economic, political, and social systems is threatened by climate change impacts.

In the North East is shrinking. Since 1960, Lake Chad has shrunk by 95% of its size (Malgwi & Joshua, 2021). Also, Malgwi and Joshua asserted that the Sahara Desert in the northern part of Nigeria is expanding to all directions at an annual rate of 1-10km. Subsistence farming, which provides staple foods for the people, is being threatened. Another big threat of climate change is hydroelectric power generation (Olaniyi, Funmilayo & Olutimehin, 2014). Nigerians experience seasonal reduction in the amount of electricity generated annually, and it is due to drought conditions which are getting worse. This reduction has implications on industrial development in Nigeria.

Southern Nigeria is experiencing increasing rainfall and getting wetter leading to flooding. Major cities such as Lagos, Gboko, Benin, Warri, PortHarcourt, Calabar, and those along major water ways such as Lokoja, have experienced flooding after heavy rains causing loss of human lives, livestock, and property (Okunlola, Oke, Adekunle & Owolabi, 2018). The northern part of Nigeria has experienced the incidences of floods in states, such as Sokoto, Niger, Jigawa, Yobe, Borno, Taraba, and Kebbi. Apart from the serious impact of floods on agriculture and displacement of inhabitants and destruction to property, floods threaten the health of the populace by exposing them to cholera, diarrhoea, malaria, and other water-borne diseases (Ogunjinmi & Ogunjinmi, 2022). This impact is so because according to United Nations Educational, Scientific and Cultural Organization (UNESCO), developing countries (of which Nigeria is one) are disproportionately affected by natural disasters because they lack resources, infrastructures, and disaster preparedness systems (Adamgbe & Kor, 2022). In view of these consequences of climate change, Amuzu, Jallow, Kabo-Bab and Yaffa (2018) opined that it would be prudent to begin thinking about what the changes might be and how humankind might best avoid or ameliorate the unfavorable effects and gain the most benefit from the favourable ones.

However, to avoid or ameliorate the effects of climate change, it is important to explore the awareness of different segments of the population with regard to the causes and effects of climate change. Awareness is the state or ability to perceive, to feel or to be conscious of events, objects or sensory patterns (Sampson & Ezeudu, 2017). Awareness means having an idea of the existence of something. Awareness is perception of something, be conscious of something/peripheral idea of something. Contextually, awareness implies the perception and consciousness of the causes and effects of climate change. The perception and consciousness could to a large extent help ameliorate the effects of climate change.

Education has been recognized as one of the important tools for conserving the environment and solving environmental problems through the cultivation of knowledge, skills, values and positive attitudes towards the environment among the people. Therefore, education serves as one of the social pillars that raise the younger generation's climate change knowledge, awareness, and attitudes (García Vinuesa, Rui Mucova, Azeiteiro, Meira Cartea, & Pereira, 2022). The United Nations (UN) and United Nations Educational, Scientific and Cultural Organization (UNESCO) have been stressing the need for climate change education, and this is reflected in the ever-growing significance to young people (Kuthe, Keller, Körfigen, Stötter, Oberrauch, & Höferl, 2020). Students' awareness should be increased through education in order to foster active participation in promoting climate change. Education contributes to bridging gaps in scientific and social comprehension of climate change (Bofferding & Kloser, 2015). Consequently, environmental-related contents were infused into most secondary school curriculum such as Geography, Social Studies, Agricultural Science among others to address climate change covered under topics, such as climate change, global warming, environmental hazards among others. Environmental education is an important tool to raise communities' students' inclusive awareness about climate change. Education has a serious role to play in helping to give out the correct message about climate change so as to mitigate and alleviate its effects. However, despite the infusion of climate change education in the curriculum, people tend to increase the rate of climate change by still indulging in the acts that cause climate change. It is therefore imperative to explore the students' awareness on the causes and effects of climate change. In other words, what are the senior secondary school students' awareness on the causes and effects of climate change in Nsukka Local Government Area, Enugu State.

In determining students' awareness of the causes and effects of climate change, the influence of gender and field of study should be taken into consideration. Gender refers to roles, responsibilities, identities or other qualities attributed to people because they are men or women (Rolleri, 2012a). Kah, Kargbo, Mendy, Jawo & Mendy (2021) stressed that gender is an important variable in any environmental discussion. Gokmen (2021) found out that gender variable affected the awareness of students on climate change causes and effects. According to Adebayo, Mubi, Zemba & Umar (2013), females are more aware of climate change, its causes and effects. Eneji, Onnoghen, Acha and Diwa (2021) noted that men and women play different roles in their daily relationship with the environment, thereby posing different perception and knowledge of the environment and the events in the environment. However, Ezeudu, Ezeudu and Sampson (2016) found out that there is no significant difference between the male and female students' mean score on climate change awareness. Oruonye (2011) noted that the different ways male and female are socialized tend to determine their environmental exploration, degree of environmental manipulation and overall relationship with the environment, including the general awareness and attitude towards environmental problems, such as climate change. Indeed, this present study sought among other things to determine if gender has influence on students' awareness on the causes and effects of climate change as a peculiar environmental problem.

The students' field of study can influence their awareness of the causes and effects of climate change. According to Eze (2020), students who major in Science and Social Sciences are more aware of climate change than those who major in the arts. According to Adebayo, Mubi, Zemba & Umar (2013), science students are more aware and sensitive towards climate change. This is because art students study climate change less frequently than Science and Social Science majors. If art students do not study the curriculum on climate change, they have limited knowledge of climate change.

Indeed, few studies have been done to determine the students' awareness towards climate change. For instance, Fernandez and Shaw (2019) found that the students' possessed low awareness towards climate change. Kumar, Jacob, Nimitha & Rakesh (2019) found that the students are not aware of climate change. Although related studies have been done with respect to secondary school students' climate change awareness, none was carried out in Nsukka Local Government Area, Enugu State. Thus, the status of secondary school students' awareness of the causes and effects of climate change in Nsukka Local Government Area (LGA) is not known at present. This gap is what this study

filled by determining the secondary school students' awareness of the causes and effects of climate change.

Research Questions

The following research questions guided the study

1. What is the awareness of causes of climate change among senior secondary students in Nsukka LGA?
2. What is the awareness of effects of climate change among senior secondary students in Nsukka LGA?

Hypotheses

The following null hypotheses were tested at 0.05 level of significance

1. There is no significant difference in the mean response of awareness of male and female senior secondary school students on the causes of climate change.
2. There is no significant difference in the mean response of awareness of arts and science senior secondary school students on the causes of climate change.
3. There is no significant difference in the mean response of awareness of male and female senior secondary school students on the effects of climate change.
4. There is no significant difference in the mean response of awareness of arts and science senior secondary school students on the effects of climate change.

Methods

The study was conducted in Nsukka Local Government Area, Enugu State. The descriptive survey research design was adopted for the study. Descriptive survey research design according to Nworgu (2015) enables the researcher to describe existing status of the population with respect to the issue investigated and such result can be generalized to the entire population. This study intends to describe the students' awareness on the causes and effects of climate change, thus the design is considered appropriate for the study. The population for the study comprised 1,864 senior secondary two (SS 2) students in Nsukka Local Government Area, Enugu State. Simple random sampling technique without replacement was used to sample (400) senior secondary students. The sample is made up of 286 female students and 114 male students. Out of sampled senior secondary school students, 218 are science inclined and 182 are arts inclined. A structured questionnaire titled Senior Secondary School Students' Awareness of the Causes and Effects of Climate Change Scale was used for data collection. The questionnaire has two sections, A and B. Section A is on personal data of the students while section B is made up of two clusters. Cluster 1 elicits information on the awareness of causes of climate change and Cluster 2 elicits information on the awareness of effects of climate change. The questionnaire was rated on a modified four point Likert scale of Strongly Agree (SA), Agree (A), Disagree (D) and Strongly Disagree (SD). The response was weighted as follows for positively keyed items: SA = 4 points, A = 3 points, D = 2 points and SD = 1 point the reverse in the negatively worded item. The instrument was face validated by three experts. Two of the experts are in Environmental Education, while one of the experts is in Measurement and Evaluation unit, all in University of Nigeria, Nsukka. Cronbach's Alpha method was used to establish the reliability of the instrument. The instrument yielded a reliability coefficient of 0.86. Frequency and percentage was used to analyze the Research questions. A benchmark of 50% is set to guide interpretation of the results of the responses percentage and frequency. Thus, any items that obtained 50% and above will be accepted, while any item that obtained less than 50% will be rejected. The t-test was used to test the null hypotheses at 0.05 level of significance.

Results

Table 1: Responses on Awareness of Causes of Climate Change among Senior Secondary School Students

S/N	Item Statement	Aware		Not Aware		Decision
		F	%	F	%	
1.	Deforestation	186	46.5	214	53.5	Not Aware
2.	Bush Burning	252	63.5	146	36.5	Aware
3.	Use of Insecticides and herbicides	81	20.3	319	79.8	Not Aware
4.	Air Pollution	305	76.3	95	23.8	Aware
5.	Emission of greenhouse gases (GHGs)	131	32.8	269	67.3	Not Aware
6.	Changes in the earth orbit and spin	113	28.2	287	71.8	Not Aware
7.	Increasing Population	81	20.3	319	79.8	Not Aware
8.	Burning of Fossil Fuels	96	24.0	304	76.0	Not Aware
9.	Automobile exhaust smoke	291	72.8	109	27.3	Aware
10.	Variations in solar and volcanic activities	127	31.8	273	68.3	Not Aware

The result in table 1 shows that senior secondary school students are not aware of the causes of climate change. This statement is anchored on the fact that all the items reached the benchmark of 50% and above except items 2, 4 and 9 which did not reach the benchmark of 50%.

Table 2: Responses on Awareness of Effects of Climate Change among Senior Secondary School Students

S/N	Item Statement	Aware		Not Aware		Decision
		F	%	F	%	
1.	Low agricultural yield	215	53.8	185	46.3	Aware
2.	Water scarcity	157	39.3	243	60.8	Not Aware
3.	Death of livestock	294	73.5	106	26.5	Aware
4.	Spread of diseases	104	26.0	296	74.0	Not Aware
5.	Dry up of water bodies	137	34.3	263	65.8	Not Aware
6.	Desertification	123	30.8	277	69.3	Not Aware
7.	Widespread floods	108	27.0	292	73.0	Not Aware
8.	Economic and financial collapse	104	26.0	296	74.0	Not Aware
9.	Economic disruption and poverty	129	32.3	271	67.8	Not Aware
10.	Population displacement	129	32.3	271	67.8	Not Aware

The result in table 2 shows that senior secondary school students are not aware of the effects of climate change. This statement is anchored on the fact that all the items reached the benchmark of 50% and above except items 1 and 3 which did not reach the benchmark of 50%.

Table 3: Independent t-test analysis of gender influence on Senior Secondary School Students' Awareness of the Causes of Climate Change

Gender	N	Mean	SD	Df	t	Sig.	Deci
Male	114	2.23	0.64	398	7.39	0.72	Accept H ₀
Female	286	2.27	0.50				

Key: N = Number of respondents, \bar{x} = mean, SD = Standard Deviation, Dec. = Decision

Result in Table 3 reveals that t-value of 7.39 with a degree of freedom of 398 and a probability value of 0.72 was obtained. This means that the null hypothesis which stated that there is no significant difference in the mean response of awareness of male and female senior secondary school students on the causes of climate change is accepted. Inference drawn therefore is that there is no significant difference in the mean response of awareness of male and female senior secondary school students on the causes of climate change.

Table 4: Independent t-test analysis of field of study influence on Senior Secondary School Students' Awareness of the Causes of Climate Change

Field of Study	N	Mean	SD	Df	t	Sig.	Deci
Science	218	3.32	0.20	398	6.04	0.10	Reject H ₀₂
Arts	182	3.31	0.21				

Key: N = Number of respondents, \bar{x} = mean, SD = Standard Deviation, $Dec.$ = Decision

Result in Table 4 reveals that t-value of 6.04 with a degree of freedom of 398 and a probability value of 0.10 was obtained. This means that the null hypothesis which stated that there is no significant difference in the mean response of awareness of science and arts senior secondary school students on the causes of climate change is rejected. Inference drawn therefore is that there is a significant difference in the mean response of awareness of science and arts senior secondary school students on the causes of climate change.

Table 5: Independent t-test analysis of gender influence on Senior Secondary School Students' Awareness of the Effects of Climate Change

Gender	N	Mean	SD	Df	t	Sig.	Deci
Male	114	3.14	0.31	398	-6.02	0.69	Accept H ₀₃
Female	286	3.22	0.31				

Key: N = Number of respondents, \bar{x} = mean, SD = Standard Deviation, $Dec.$ = Decision

Result in Table 5 reveals that t-value of -6.02 with a degree of freedom of 398 and a probability value of 0.69 was obtained. This means that the null hypothesis which stated that there is no significant difference in the mean response of awareness of male and female senior secondary school students on the effects of climate change is accepted. Inference drawn therefore is that there is no significant difference in the mean response of awareness of male and female senior secondary school students on the effects of climate change.

Table 6: Independent t-test analysis of field of study influence on Senior Secondary School Students' Awareness of the Effects of Climate Change

Field of Study	N	Mean	SD	Df	T	Sig.	Deci
Science	218	3.41	0.23	398	7.31	0.14	Reject H ₀₂
Arts	182	3.34	0.09				

Key: N = Number of respondents, \bar{x} = mean, SD = Standard Deviation, $Dec.$ = Decision

Result in Table 6 reveals that t-value of 7.31 with a degree of freedom of 398 and a probability value of 0.14 was obtained. This means that the null hypothesis which stated that there is no significant difference in the mean response of awareness of science and arts senior secondary school students on the effects of climate change is rejected. Inference drawn therefore is that there is a significant difference in the mean response of awareness of science and arts senior secondary school students on the effects of climate change.

Discussion of Findings

Tables 1 and 2 showed the results of frequency of responses on data analyzed. The senior secondary school students are aware of bush burning, air pollution and automobile exhaust smoke as causes of climate change but not aware of deforestation, use of insecticides and herbicides, emission of GHGs, change in the earth orbit and spin, increasing population, burning of fossil fuels and variations in solar and volcanic activities as the effects of climate change. They are also aware of low agricultural yield and death of livestock as effects of climate change but not aware of water scarcity, spread of diseases, dry up of water bodies, desertification, widespread floods, economic disruption and poverty and population displacement as effects of climate change. This result is in line with the findings of Fernandez and Shaw (2019) who found out that the students' possessed low awareness towards the effects of climate change. Also, Khoirunisa(2018) in a study on the middle school students of awareness of the causes of climate change found that the students are not aware of the causes of climate change. The major findings of the study conducted by Ezeudu, Ezeudu and Sampson

(2016) were that senior secondary school students in Umuahia education zone have low climate change awareness. Following this result, it can be deduced that the set objectives of Environmental Education is not achieved. According to GarcíaVinuesa, RuiMucova, Azeiteiro, MeiraCartea, & Pereira (2022), education serves as one of the social pillars that raise the younger generation's climate change knowledge, awareness, and attitudes. Environmental education is an important tool to raise students' inclusive awareness of the causes and effects of climate change. The unawareness of the causes and effects of climate change by the students could be a result of little climate change related contents in the secondary school curriculum and also as a result of the teaching methods teachers use in conveying climate change contents to the students.

The findings of the study with respect to hypothesis one and two analyzed in tables 3 and 4 respectively showed that there is no significant difference in the mean rating scores of male and female students on their awareness of the causes and effects of climate change. This result is in line with the findings of Haq and Ahmed (2020) who found that being a male or female student has no significant difference with respect to their knowledge towards environmental events like climate change. Ezeudu, Ezeudu and Sampson (2016) noted that there is no significant difference between the male and female students mean score on climate change awareness. These findings however disagree with Kumar, Jacob, Nimitha and Rakesh (2018), who found a significant difference between male and female tertiary education students' awareness to climate change.

The findings of the study in tables 5 and 6 showed that there is a significant difference in the mean rating scores of arts and science students on their awareness of the causes and effects of climate change. This result is in line with the findings of Eze (2020), who found out that students who major in Science and Social Sciences are more aware of climate change than those who major in the arts. For Yang, Liao, Liu, Zhang, Zhong & Huang (2018), science students are more aware of climate change than any other field of study. This could be that more climate change related contents are infused in science subjects than arts subjects.

Conclusion

The finding of this study concludes that the senior secondary students are not aware of the causes and effects of climate change.

Furthermore, it concludes that there is no significant difference in the mean response of awareness of male and female senior secondary school students on the causes and effects of climate change.

The study also concludes that there is a significant difference in the mean response of awareness of science and arts senior secondary school students on the causes and effects of climate change.

Recommendations

Based on the findings of the study, the following recommendations are made:

1. Curriculum planners should consider infusing more climate change education contents for the senior secondary school education into the relevant subjects that could help the students to understand the causes and effects of climate change.
2. To increase students' awareness and information about climate change, climate change education should be integrated into the art student curriculum, such as incorporating the themes of climate change and environmental safety when students study literary texts, language texts, novels and films among others.
3. In-service training should be organized for climate change educators in senior secondary school in order to expose them on need to promote climate change awareness of students.
4. Methods of teaching and learning in climate change education should be focused on field work thereby making the students have direct the experience with the environment and nature through "hand-on activities"
5. Relevant subjects used in promoting students' climate change awareness in secondary schools, should be used adequately to promote climate change awareness. To achieve this effectively, conferences, workshops and seminars directed at exposing the climate change educators on the need to reflect climate change causes and effect during the implementation of environmental relevant contents should be organized and supported by the government and other relevant non-governmental organizations. The exposure could also include teaching methods that could enhance inculcation of climate change contents to the students.

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RETHINKING PEDAGOGICAL ISSUES IN ECONOMICS INSTRUCTION IN THE FACE OF COMPLEX SOCIETAL CHALLENGES: THE TEACHERS' PERSPECTIVE

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Abstract

This study investigated the pedagogical issues in Economics instruction in the face of complex societal challenges as perceived by the Economics teachers. The study adopted a descriptive research design. A population of 56 Economics teachers in Nsukka Local Government constituted the population of the study. Total enumeration sampling technique was used to select all the 56 teachers in Economics since their number is manageable for the study. Structured questionnaire developed by the researchers was used for the study. The instrument was subjected to validation by three experts and reliability testing of internal consistency through trial testing which was analysed using Cronbach Alpha. A reliability coefficient of 0.76 was generated showing that the instrument is reliable. Mean and percentages were used for data analysis. The findings revealed that Economics teachers have the knowledge of the pedagogies for teaching Economics as contained in the curriculum. However, most of the newer pedagogies were not known especially computer aided strategies, cooperative learning strategies like flip classroom, STAD, think pair share, among others. The findings also revealed that they are aware of inquiry based pedagogies like project based, simulation, among others. Teachers also know the societal challenges that necessitate the newer pedagogies yet most of the pedagogies are not used like online learning approaches, reflective and cooperative pedagogies. Inquiry- based learning strategies were used to a low extent. It was recommended from the findings that teachers should attend conferences and workshops organized by universities and other educational institutions where these pedagogies are discussed. The curriculum planners should ensure to specifically articulate the newer pedagogies in the Economics curriculum.

Keywords: Pedagogies, Societal Challenges, Collaborative Learning, Computer Assisted Learning, Inquiry Based Learning.

Introduction

The complexity of man's environment has necessitated his continued search for knowledge. These knowledge and skills needed for survival are acquired through planned and unplanned processes. As the challenges facing the modern man become more complex, research for newer knowledge becomes pertinent through education. Education is an essential process of human development (Adesemowo, 2022). Education is saddled with achieving some stated aims which may include the transmission of knowledge, skills, and character traits through different mediums (Chazan, 2022). In this regard, Education must be planned with a pre-determined outcome which those involved in the process must strive to achieve. Education is a passport to the future and so its methods and processes which take place during teaching and learning should take cognizance of the social institutions in which it is built (HarperCollins, 2023).

Education improves labour skills leading to increase in productivity and overall standard of living (Akande, 2016). In a more comprehensive way, Education helps in creating more employment opportunities, securing a higher income, developing problem-solving skills, improving the economy, creating equal opportunities, and creating modern society among others. In the formal settings, knowledge of income, employment, decision making and management of scarce resources in the social institutions for addressing problematic social issues are transferred through some Social Science disciplines among which is Economics.

Economics has been described by many as the study of wealth creation, scarcity, resource, allocation, wealth management among others. Hayes (2023) defined Economics as the study of how

people allocate scarce resources for production, distribution, and consumption, both individually and collectively. Economics refers to choices or decisions made by individuals, businesses, and governments regarding the production, distribution, and consumption of goods and services with major emphasis on resource allocation (Wallstreetmojo, 2023). According to Sandberg (2023), Economics studies financial choices and outcomes, such as how people and countries use resources. Naor (2022) explained that Economics gives individuals tools to understand how people produce, distribute, and consume goods and services. The above definitions of Economics explain the need for the study of Economics which include among other things to equip its learners with skills of managing resources and making right financial choices. The objectives of Economics as a body of knowledge as stated by the Nigerian Educational Research and Development Council in Mohammed and Pitan (2022) includes; understand basic Economics, principles, concepts as well as the tools for sound economic analysis; contribute intelligently to discourse on economic reforms and development as they affect or would affect the generality of Nigerians; understand the structure and functioning of economic institutions. The objectives also include appreciating the role of public policies on national economy and to develop the skills and also appreciate the basis for rational economic decisions.

Apart from these laudable objectives, the knowledge of Economics specifically helps in the allocation of resources, reduction of poverty and teaching of the workings of economic systems. It helps in proper budgeting, understanding national wealth and how it is created, teaches the understanding of employment and how to mitigate unemployment among other merits. A basic understanding of Economics makes one a well-rounded thinker. Virtually every major problem facing the world today, from global warming, to world poverty, to the conflicts in many countries, has an economic dimension and for anyone to be part of solving these problems, the knowledge of Economics is crucial. This underlines the place of Economics in solving societal challenges which have become complex. Social challenges refer to daily problems encountered by people in their day to day living. They are those conditions or behaviors that have negative consequences at the personal and work level (Goswami, 2021). Social problems are issues that harm a group of people in the society (Drew, 2023). Drew continued that societal problems refer to social conditions, processes, societal arrangements or attitudes that are commonly perceived to be undesirable, negative and threatening certain values of interest. Societal challenges represent complex, multi-level, multi-dimensional problems that require concerted efforts by various actors; public, private, and non-profit to be successfully addressed (Voeglin, Scherer, Stahi & Hawn, 2021). Some of the defining characteristics of societal challenges are their complexity, uncertainty, and value-laden character (Ferraro, Etzion & Gehman, 2015). Societal challenges are highly complex in that the number of elements and interrelationships that constitute the challenges or that would lead to their resolution exceed any comprehensive analysis and cannot be fully understood, thus difficult to address (Schneider, Wickert, & Marti, 2017). Some of the complex social problems include: refugees and immigration, poverty and economic insecurity, racial discrimination, climate change, and rising healthcare costs, inequality in education (Simwa, 2019). Other issues include: examination malpractice, cultism, terrorism, human trafficking, prostitution, drug abuse, ritual killing, illiteracy, political thuggery, election rigging, kidnapping, unemployment, inflation (George & Ukpong, 2013) This complexity of the challenges facing the society calls for more effort towards solving them and this can be achieved by timely awareness of these challenges through education.

Hence, societal changes and challenges have brought new challenges for teachers and with new challenges, comes the need to re-examine current approaches in transferring knowledge in education (Haberlin, 2023). Hence, innovation and renewal of pedagogies in Economics curriculum in senior secondary schools in Nigeria become necessary because the country is seemingly still struggling to fit in appropriately to the 4th industrial revolution while the developed countries of the world are now in the era of 5th industrial revolution in a new age (Mohammed & Pitan, 2022). Preparing students in the senior secondary schools by re-thinking the instructional approaches in Economics curriculum is one of the solutions to face the societal problems and to reduce its effects on the future of jobs in Nigeria. This calls for effective pedagogies that when applied in the process of learning, learning becomes real and participatory. This is where the learning becomes “do with me” instead of “do as I do”. Learners become part of the process, understanding the real issues as presented through the pedagogies and equipped with skills and competences to face the complex social problems, hence, the need to re-think pedagogical issues in Economics instruction.

Pedagogy refers to the teaching practices and theories deployed to teaching and learning. Pedagogy is coined from the Greek words ‘paidos’ (child) and ‘agogos’ (leader) (Kibin, 2023). So, pedagogy is the study of teaching and how the content is presented to students. It is the development of an educational process that helps learners gain knowledge (Baker, 2023). Pedagogy in education

demonstrates teaching methods for both academic and theoretical aspects. ‘Effective’ refers to a student centered teaching and learning approach where educators are reflective in their theory, practice and policy implementation in teaching/learning, resulting in positive impact on the learners. Operationally, effective Pedagogy is the profession or art of teaching to create awareness and knowledge to the learners through effective engaging approaches with students with the aim of developing the behavior of the learners productively. It is a term that refers to the method of how teachers teach, in theory and in practice. Pedagogies in teaching and learning can be categorized as follows; inquiry based, social, constructivist, critical, integrative, reflective and collaborative pedagogies (Relleve, 2010; Shirke, 2021). As stated in the Economics curriculum document, the pedagogies for teaching the subject include; collaborative, interactive, and learner-oriented instructional strategies; future wheel technique, concept mapping, field trip, co-operative learning strategies etc. The use of resource persons and field officers is also recommended (Nigeria Education Research and Development Council, 2008). Some of the methods like collaborative and interactive as contained in the curriculum are not specified and it is possible for teachers to overlook them. In addition, the ones specified like concept map and future wheel may be really utilized. However, some of these pedagogies as stated in the Economics curriculum reflect the pedagogies as stated in Relleve (2010) and Shirk (2021). Some were not captured, but the issue remains that there is need for newer specified pedagogies though within the already categorized pedagogies but more innovative to address the current social issues. The issue is whether the Economics teacher knows about them and whether they are competent in employing them and also what could constitute challenge in employing them in Economics instruction.

Instructional delivery pedagogy of the subject Economics is of essence in approaching the problem of the society. This is because it is believed that there is a positive relationship between the Economics teacher’s pedagogy, the understanding of the concepts and performance of students during the schooling period and in real life experiences. This has led to the identification of newer and innovative pedagogies that could improve teaching and learning of Economics and equip the economists with better skills and knowledge that would help them in providing solutions to the ever complex societal challenges. Some of these newer pedagogies were identified by Mohammed and Pitan (2022) specifically to include; Online Assisted Instruction pedagogies (online classrooms and tools like goggle classroom, flip classroom, Nearpod, flash cards, slides, Edmodo, classdого, etc; animation like 2D and 3D, etc; online games like funbrian, starfall, classEx, Moblab etc; blended instruction strategies e.t.c.); Collaborative pedagogies (cooperative learning, group based learning, case methods, think pair share, student team achievement division, three minute review, teach accelerated instruction, problem based learning e.t.c); Reflective pedagogies (Discussion & Debate, Role Play, Student Presentations, Experiential Learning, Inquiry-based Learning); Constructive approaches (reciprocal learning , problem based learning, inquiry based learning, cooperative learning); Inquiry based (observational field trips, science experiments, and hypothesis-based research projects) and integrative (Multidisciplinary Integration, Interdisciplinary Integration and Trans-disciplinary Integration) pedagogies.

These pedagogies are elucidated further. According to Revelle (2010), Shirke (2021), and Baker, (2023), in Constructivist approach, the students are allowed to be present in the process of understanding and gaining knowledge rather than just passively receiving information. This encourages critical thinking among the students and gives a learning environment in which they can connect with what they are hearing. Constructivist teaching is based on the belief that learning occurs as learners are actively involved in a process of meaning and [knowledge construction](#) as opposed to [passively receiving information](#). In Collaborative learning, , the students form groups of learners that learn together and work to solve a problem, build strategies, ideas, create products or complete a task. This is a joint intellectual effort by the students among themselves or with the help of the teachers. In Integrative pedagogical approach, the students are given a learning environment that helps them in connecting with their learning across the syllabus. The four objectives of integration include-understanding the process of learning; differentiating issues by relevance; making use of the lessons in practical scenarios; associating the concepts in regular lives. On the other hand, Reflective approach is where students are expected to evaluate themselves. It means observing the activities of the teachers and other students in the classroom and analyzing why they do it and how it works. In Inquiry-Based Learning method, the educators are expected to not just answer the queries of the students, but also build a culture where their ideas are explored, challenged, improved, and refined. It aims to take the students from the position of wondering about a question to understanding the answer and then questioning it further.

Using these pedagogies will not only improve the system of learning but will also help to achieve the goal of education which is to provide the opportunity for acquiring knowledge and skills that will enable people to develop their full potential, and become successful members of society. Hence, the benefits of utilizing these pedagogies are enormous and they include according to Baker (2023) to improve quality of education, harnesses team learning, help to avoid monotonous learning, enable learners to learn in their way. They are convenient for special students, to improve student and teacher communication among other benefits.

Despite the importance of these pedagogies and their needfulness in addressing the complex social problems facing the country and also the fact that teachers' skills in utilizing these pedagogies are correlated with student performance (Amali & Yusuf, 2013), teachers may not be employing a variety of these teaching methods. This assertion is supported by Mupa, Chinoonela and Zimbabwe (2015) who revealed that teachers' instructional materials and methods are limited to textbooks and syllabuses and do not go beyond that. Pupils learn in harsh and uncondusive teaching and learning environments Teachers also have low pedagogical knowledge to even use these pedagogies (Obielodan, Omojola, Tijani, 2020) and also according to Udemba (2021), teachers use peer tutoring and e-learning tools and applications to a low extent. Therefore, considering the importance of utilizing the pedagogies and the level of its utilization coupled with the need to address the complex social problems in the society by making learning part of the learning process through the use of various pedagogies, this study investigated the Economics teachers perspective on pedagogical issues in Economics instruction in the face of numerous complex social problems bedeviling the society.

Statement of the problem

Economics has been described by many scholars as the study of wealth creation, scarcity, resource allocation, wealth management among others. This description of Economics underlines the place of Economics in solving societal challenges which has become complex. These problems have caused so much harm and untold hardship to the people and they include; poverty, uncontrollable inflation, corruption, cultism, robbery, kidnapping, high cost of living, terrorism, militancy, unemployment and so on. This complexity of the challenges facing the society calls for more effort towards solving them and this can be achieved by timely awareness of these challenges through education by application of newer and effective pedagogies. This has brought new challenges for teachers and with these new challenges, comes the need to re-examine current approaches in transferring knowledge in education especially in Economics which is one life subject that can help in addressing most of the complex societal problems. Hence, the problems are whether Economics teacher are knowledgeable of these pedagogies, the extent they employ them, if they do, and the challenges that may limit their use in solving the complex social problem in the country.

Purpose of the study

This study investigated the re-thinking of pedagogical issues in Economics instruction in the face of complex societal challenges: The teachers' perspective. Specifically, the study examined;

1. teachers' knowledge of pedagogies for Economics Instructions
2. teachers' knowledge of societal challenges that necessitate effective pedagogies in Economics.
3. teachers' competence level in utilizing effective pedagogies.
4. the extent teachers utilize the pedagogies.
5. challenges that may mitigate the use of the effective pedagogies.

Method

The study adopted a descriptive design and was carried out in Nsukka Local Government Area. Nsukka local government has 32 public schools with 56 Economics teachers. Total enumeration was used to select all the 56 as the number is manageable for the study. A 79 item structured questionnaire developed by the researcher and titled "questionnaire on pedagogical issues in Economics instruction" was used for data collection. The questionnaire was made up of only one section which was divided into five clusters representing each of the five research questions that guided the study. The response option for cluster one on the knowledge level of Economics teachers is Knowledgeable and not knowledgeable, cluster two on the awareness of teachers on the complex social problems has response option of aware and not aware. Cluster three on the competence level of Economics teachers' utilization of the effective pedagogies has response option of highly competent, moderately competent, low competence and not competent. Cluster four is on the extent of utilization

of the pedagogies has high extent, moderate extent, low extent and not at all. Finally the cluster five on the challenges that mitigate the utilization of the effective pedagogies has response options of strongly agreed, agree, disagreed and strongly disagreed. The instrument was subjected to validation by three experts and reliability of internal consistency was tested through trial of the instrument on 15 students of Accountancy. A reliability index of 0.76 was realized which shows that the instrument is reliable. Mean and percentages were used for data analysis.

Result

Research Question one: What is the teachers’ knowledge of pedagogies for Economics Instruction as contained in the curriculum?

Table one: Percentage rating of teachers’ knowledge of pedagogies for Economics instructions as contained in the curriculum N=56

S/N	Item Statement	Knowledgeable %	Not Knowledgeable %	Decision
1	Collaborative strategies	55	45	Accept
2	Interactive	24	76	Reject
3	Future wheel strategy	37	63	Reject
4	Field trip strategy	100	0	Accept
5	Cooperative learning strategies	58	42	Accept
6	Use of resource person and field officers	98	2	Accept
7	Concept mapping strategy	38	62	Reject
8	Information communication strategies	25	75	Reject

Table one above shows the percentage rating of Economics teachers’ knowledge of pedagogies for Economics instruction as contained in the curriculum. The result revealed that items 2,3, 4,5, 7 and 8 with percentage rating 76%, 63%, 62% and 75% were rejected as their percentage level is below the acceptable percentage bench mark while items 1, 4,5, and 6 with percentage rating 55%, 100%, 58% and 98% were accepted. This implies that Economics teachers to a large extent do not know interactive strategies, future wheel strategy, and concept mapping strategies while they are knowledgeable of collaborative, field trip, cooperative strategies, use of resource persons and field officer.

Research Question two: What is the teachers’ awareness level of societal challenges that necessitate effective pedagogies in Economics

Table two: Percentage rating of the teachers’ awareness level of societal challenges that necessitate effective pedagogies in Economics (N=56)

S/N	Item Statement	Aware %	Not Aware%	Decision
9	Refugee syndrome	100	0	Accept
10	Immigration	100	0	Accept
11	Poverty	100	0	Accept
12	Economic Insecurity	100	0	Accept
13	Climate Change	78	22	Accept
14	Rising Healthcare Costs	100	0	Accept
15	Inequality In Education	83	17	Accept
16	Examination Malpractice	100	0	Accept
17	Cultism	100	0	Accept
18	Terrorism	100	0	Accept
19	Human Trafficking	89	11	Accept
20	Prostitution	100	0	Accept
21	Drug Abuse	100	0	Accept
22	Ritual Killings	100	0	Accept
23	Illiteracy	100	0	Accept
24	Political Thuggery	100	0	Accept
25	Election Rigging	100	0	Accept
26	Kidnapping	100	0	Accept
27	Unemployment	100	0	Accept
28	Inflation	100	0	Accept

Table two above revealed the percentage rating of Economics teachers on the complex social problems that necessitate the need for effective pedagogies. Items 9-28 were all accepted which imply that teachers are aware of the complex social problems that necessitate the application of effective pedagogies in Economics instruction.

Research Question three: What is the teachers' competence level in utilizing effective pedagogies?

Table three: Mean rating on the teachers' competence level in utilizing effective pedagogies.

N=56

S/N	Item Statement	Mean	SD	Decision
Online Assisted Instruction pedagogies				
29	Google Classroom	0.53	0.63	Reject
30	Flip Classroom	0.82	0.81	Reject
31	Nearpod	0.28	0.49	Reject
32	Blended learning	0.98	0.58	Reject
33	Slides	0.73	0.61	Reject
34	Edmodo	1.25	1.09	Reject
35	Classdого	1.37	0.64	Reject
36	ClassEx	1.30	0.91	Reject
37	Social media platforms	1.19	0.69	Reject
Collaborative/cooperative pedagogies				
38	Teach Accelerated instruction	0.78	0.92	Reject
39	Group based learning	2.96	1.02	
40	Case method	0.69	0.89	Reject
41	Think pair share	0.32	0.50	Reject
42	Student team achievement division	0.35	0.67	Reject
43	Three minutes review	0.57	1.05	Reject
Reflective pedagogies				
44	Discussion & debate	3.12	0.78	Accept
45	Role play	2.96	0.68	Accept
46	Student presentations	3.00	0.76	Accept
47	Experimental learning	.7143	0.94	Reject
48	Inquiry based learning	2.95	1.68	Accept
Constructive Approach				
49	Reciprocal learning	0.42	0.68	Reject
50	Problem based learning	2.87	0.97	Accept
51	Inquiry based learning	3.33	0.93	Accept
52	Observational field trips	3.32	0.78	Accept

Table three revealed the mean rating of the competence level of the Economics teachers utilizing the effective pedagogies. Items 29-43,47 and 49 were rejected as pedagogies they are not competent in using while items 44,45,46,48,51, and 52 were accepted, as teachers are competent in using them as they responded. The result shows that Economics teachers are only competent in using, students' discussion, debate, role play, student presentation, problem based learning, inquiry based learning and observational field trip. They are not competent in using online assisted instructional strategies and collaborative strategies.

Research Question four: What are the extent teachers utilize the effective pedagogies?

Table four: mean rating of the extent teacher utilize the effective pedagogies (N=56)

S/N	Item Statement	Mean	SD	Decision
Online Assisted Instruction pedagogies				
53	Google Classroom	0.58	0.49	Reject
54	Flip Classroom	0.55	0.53	Reject
55	Nearpod	0.03	0.26	Reject
56	Blended learning	0.85	0.44	Reject
57	Slides	0.57	0.65	Reject
58	Edmodo	0.03	0.26	Reject
59	Classdого	0.00	0.00	Reject
60	ClassEx	0.03	0.26	Reject

61	Social media platforms, Collaborative/cooperative pedagogies	0.32	0.50	Reject
62	Teach Accelerated instruction	0.14	0.40	Reject
63	Group based learning	2.92	1.24	Accept
64	Case method	0.69	0.89	Reject
65	Think pair share	0.32	0.50	Reject
66	Student team achievement division	0.35	0.67	Reject
67	Three minutes review	0.57	1.05	Reject
	Reflective pedagogies			
68	Discussion & debate	3.12	0.78	Accept
69	Role play	2.96	0.68	Accept
70	Student presentations	3.00	0.76	Accept
71	Experimental learning	0.71	0.94	Reject
72	Inquiry based learning	0.57	0.68	Reject
	Constructive Approach			
73	Reciprocal learning	0.42	0.68	Reject
74	Problem based learning	3.00	1.20	Accept
75	Inquiry based learning	3.14	0.64	Reject
76	Observational field trips	3.12	0.78	Accept

Table five shows the mean rating of Economics teachers on the extent they utilize the effective pedagogies for Economics instruction. Items 53-62, 65-68, 72,73, 75 and 76 were rejected as pedagogies that are utilized to a very low extent while items 63, 68, 69, 74 and 76 are accepted as pedagogies used to a high extent.

Research Question five: What are the challenges that may mitigate the use of the effective pedagogies?

Table five: Mean rating of the challenges that mitigate the use of the effective pedagogies

N-56

S/N	Item Statement	Mean	SD	Decision
80	Poor funding of education	3.51	0.50	Accept
81	Students learning difficulties	3.67	0.47	Accept
82	Inadequate teachers training	2.66	0.58	Accept
83	Teachers' poor knowledge of innovative pedagogies	3.62	0.48	Accept
84	Poor communication network	3.32	0.47	Accept
85	Inadequate ICT facilities	3.28	0.62	Accept
86	Teachers' poor motivation	2.96	0.76	Accept
87	Low students-teacher ratio	2.10	0.94	Reject
88	Unavailability of internet services	3.42	0.49	Accept
89	Unstable power supply	3.66	0.47	Accept
90	Teachers' willingness to adopt the innovative pedagogies is not encouraging	3.14	0.72	Accept
91	Enough time allocated for each lesson	1.83	1.00	Reject
92	Adequate classroom space	2.03	0.83	Reject

Table five revealed the mean rating of Economics teachers on the challenges that mitigate the use of the effective pedagogies for Economics instruction. Items 80,82,83,84,85,86,88,89 and 90 were accepted as challenges that mitigate the use of effective pedagogies in Economics instruction as their means were above the mean bench mark. Items 81, 87, 91 and 92 were rejected.

Discussion

Table one above shows the percentage rating of Economics teachers' knowledge of pedagogies for Economics instruction as contained in the curriculum. The finding revealed that Economics teachers to a large extent do not know interactive strategies, future wheel strategy, and concept mapping strategies while they are knowledgeable in collaborative, field trip, cooperative strategies, use of resource persons and field officer. This finding is in line with Obelodan, Omojola and Tihani (2020) who found out that teachers have low pedagogical knowledge. Finding from the

table two above revealed that Economics teachers are aware of the complex social problems that necessitate the use of effective pedagogies in teaching Economics. Such complex social problems are kidnapping, cultism, militancy, prostitution, poverty, unemployment, inflation, political thuggery among others. It was equally revealed that Economics teachers are only competent in using students' discussion, debate, role play, student presentation, problem based learning, inquiry based learning and observational field trip. They are not competent in using online assisted instructional strategies and collaborative strategies. This finding aligns with Obielodan, Omojola and Tijani (2020). The extent of utilization of these pedagogies is low. The strategies include: online assisted strategies, collaborative strategies, and reciprocal learning among other strategies but they utilize reflective strategies to a high extent. This findings aligns with that of Udemba (2021) that teachers use peer tutoring and e-learning to a low extent. This finding is in consonance with the finding of Amali and Yusuf (2013) that teachers pedagogical skills are correlated with students' performance hence, they do not employ these pedagogies and also that teachers' instructional materials and methods are limited to textbook, syllabus and conventional method (Mupa, Chinooneka & Zimbabwe (2015). Findings from this study revealed that challenges that mitigate the use of these effective pedagogies are inadequate facilities, poor network, high student-teacher ratio, no skill among others. These challenges are capable of discouraging teachers to use the online assisted strategies and other strategies like poor knowledge of the pedagogies which corresponds with Obielodan, Omojola and Tijani (2020) that teachers have low pedagogical knowledge. With low knowledge of these pedagogies, it becomes difficult to apply them and learning is affected which makes the resolving of complex social problems difficult.

Recommendations

From the findings of the study, the researchers recommend the following:

1. Teachers should attend conferences, workshops and seminar organized by education institutions where the knowledge, skill and application of most of these pedagogies are discussed.
2. Stake holders especially the ministry of education through the curriculum developers should articulate specific instructional strategies in the curriculum the way it will be understood by the teacher to enhance applicability.
3. Government should also help in the provision of facilities that are needful for the effective use of these pedagogies.

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EFFECT OF INTERACTIVE LECTURE METHOD ON SECONDARY SCHOOL TWO STUDENTS' PERFORMANCE IN MATHEMATICS

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Abstract

This study seeks to investigate the impact of interactive lecture strategy on secondary school students' performance in mathematics. The study adopted a quasi-experimental research design. The study was conducted using a sample size of 62 SS2 students in two intact classes from two public secondary schools in Mkpatein Local Government Area, Akwalbom State. The two intact classes were further assigned to the experimental and control groups. Mathematics Performance Test (MPT) was used for data collection. The instrument was subjected to content validity and reliability check which yielded a reliability coefficient of 0.79 obtained using spearman correlation coefficient. Three research questions were formulated for the purpose of the study and three hypotheses were tested at 0.05 level of significance. Mean and standard deviation were used to answer the research questions while t-test for independent samples was used to test the hypotheses. The finding of the study showed that the students taught using interactive lecture method performed better than those taught using the conventional lecture strategy also there was no significant difference between the performance scores of male and female students taught using the interactive lecture strategy. It was recommended among others that mathematics teachers should employ interactive lecture in the teaching and learning situation, particularly in large class size. Also, school proprietors on their part should provide the necessary facilities required for the effective use of interactive lecture method.

Keywords: Interactive, Lecture Method, Mathematics

Introduction

School is a formal agency of education designed for specific goals. In education in schools, the teaching and learning process is the most basic activity, meaning that learning can be achieved depending on how the results of student learning are explained. Teaching and learning activities consist of several components including: students, educators, and teaching methods and so on, to develop student learning activeness it is necessary to have an appropriate method needed in the subject matter. So that the performance of learning objectives can be achieved and students feel happy, understand the material presented (Fatimah & Mahmudah, 2020).

There are several methods in Islam that can be used or applied to support success in the learning process, one of which is the interactive lecture method (Tambak, 2014). The lecture method is an interaction between the teacher and students through orally (Sagala, 2009). Meanwhile, the lecture method is to speak orally which directly explains to a group of students (Sanjaya, 2010). This thinking has a similarity in that the delivery of material uses orally (Basyiruddin, 2022). To be able to improve students' learning, teaching methods are needed that are easy for students to understand and as interesting as possible so that the learning process can be achieved properly (Raden Rizky et al. 2014). So far, in learning activities there are many obstacles that must be faced by teachers to achieve learning objectives.

One of the obstacles that arose from the results of observations at school was that students were not enthusiastic and the lack of response from the teacher towards students, even though the teacher had done his best in teaching students but the results were not successful. So that students do not understand what has been explained even though students are silent in class and only listen not to chat alone but it makes students sleepy and there is no reciprocity or a response when the teacher finishes explaining. Do they understand enough what is conveyed or to the learners the learning process is not fun? As a result of these problems, it will be examined more deeply by making efforts to

conduct interviews with students and teachers. According to the teacher that what makes students not active is because students depend on the subject matter and the teacher, whereas according to students learning is boring because the teacher is not fun in delivering material that is too serious, monotonous, the teacher is scary, so students are embarrassed and afraid to ask questions, lazy in learning even in doing the exam can do carelessly (Rikawati & Sitingjak, 2020). Based on the results of the findings we can conclude that the activeness of student learning depends on the methods used in learning and the closeness of students to teachers during learning, therefore it is necessary to apply good learning so that active learning is achieved and effective (Shoimin, 2013). Choosing a method in learning that is not appropriate pose big obstacle in the teaching and learning process then the purpose of learning is not achieved if not choose appropriately. With accuracy in choosing a method will make learning effective and efficient so that students easily absorb what is conveyed and increase activeness in learning (Aminah, 2018).

Mathematics is the subject that deals with the study of numbers, figures and relationship (functions) which aid in solving real life situations or problems in our daily activities; as an individual, organization or government (Orok, Ibok & Oton, 2019). Nwoye (2017) view Mathematics as the science of numbers that deals with signs and symbols. The author further describes Mathematics as a bedrock and pillar for Science and Technology, as important core and everyday subject in Nigeria Primary and Secondary. Methods adopted in teaching and learning mathematics are very essential and it serves as a predictor to the academic performance of learners, though Ibok and Esoung (2023) asserted that for the learners to learn any mathematical concept, the learners must either be motivated to do so by the teacher or by themselves. They concluded that the self-efficacy of the learners is a predictor of academic performance of the learners in Mathematics. Though self-efficacy is a predictor, Aminah (2018) still holds firm to the fact that teacher's teaching method is also a predictor of the teaching and learning process in general. Orok, Ibok & Oton (2019) in their study on problem-solving method of teaching Mathematics has highlighted a number of other factors like students' attitude to learning, parents' factors, lack of instructional materials and poor instructional strategies employed by Mathematics teachers as possible causes of students poor academic performance in mathematics and they concluded that problem solving method is a potential factor in the teaching and learning of Mathematics which should be adopted during lesson delivery. Even upon numerous researches, problem of decline in academic performance is still alarming and there is need to re-visit the issue of teaching method. This study sought to reviews interactive lecture approach to the teaching of Mathematics in Secondary Schools in Mkpate Local Government, Akwalbom State as a positive tool in alleviating poor performance in mathematics.

Interactive lecturing can be interpreted in a number of different ways. For some, interactive lecturing involves a two-way interaction between the presenter and the participants. For others, it refers to increased discussion among the participants. Interaction can also refer to a student's involvement with the material or the content of a lecture; it does not necessarily mean that the audience has to do all of the talking. Interactive lecture is the type of lecture method that provides the learners with the opportunity to interact with the teachers themselves. In this method, the teacher gives a brief talk and gives room for the learners to contribute or responds after which the teacher fine-tunes or corrects the learners where necessary. The teacher does this by engaging the learners in activities such as think-pair-share, demonstration and role-play (Kola, 2017). The teacher breaks the lecture once in a while to have all the students participate in activity that makes them work with the material.

There has been outcry about the poor state of performance of students in public examination in Mathematics. Some researchers attributed it to lack of instructional materials, teacher factor, poor teacher preparation and dilapidated state of Mathematics classroom in schools as defective predictor of academic performance. These problems if not adequately address will continue to have negative effect on the study of Mathematics in Nigerian schools and will continue create loop holes in the academic performance of Nigerian Students in external examination. To address these problems of students' lack of interest in the subjects, the use of adequate teaching strategies should be adopted. Interactive lecture proposed to improve teacher-student relationship and therefore boost the interest of learners in the subject. Though several studies have been conducted on the effects of interactive lecture on students' performance, such studies are other areas of sciences like Physics, Biology and Chemistry. Study on the effect of interactive lecture on students' performance in Mathematics is not within the research area and this necessitated the need for this study.

Purpose of the Study

The purpose of this study was to investigate the effect of Interactive lecture Method on Senior Secondary School II Students' Performance in Mathematics. Specifically, the study sought to find out the effect of

1. Interactive lecture method on Students' Performance in Mathematics
2. Interactive lecture Method on the Performance of male and female Students in Mathematics.

Research Questions

The following research questions were raised to guide the study;

1. What are the mean performance scores of the students taught mathematics using Interactive lecture method and those taught with conventional lecture method?
2. What is the mean performance score of male and female students taught Mathematics using interactive lecture method?

Research Hypotheses

The following hypotheses were formulated to guide the study;

1. There is no significant difference in the mean performance score of students taught mathematics using Interactive lecture method and those using Conventional lecture method.
2. There is the no significant difference in the mean performance scores of male and female students' taught mathematics using Interactive lecture method

Methodology

The study adopted a quasi-experimental design, particularly the non-equivalent control group design with pre-test and post-test to determine the effect of interactive lecture on senior secondary two (SS II) students' performance in Mathematics. A total of 42 students (24 in the experimental group and 18 in the control group) took part in the study. Two intact classes from two schools were randomly selected and assigned to the experimental and control groups. The two groups were pre-tested on the pre-test on the concept of plane geometry using Mathematics Performance test (MPT) as the instrument. The instrument was subjected to validation by experts and the reliability coefficient of 0.79 was obtained using PPMC when subjected to reliability check using the test-retest method. The experimental group was taught using interactive lecture while the control group was taught with the conventional lecture method. After the treatment, post-test was administered to both groups. Mean and Standard deviation were used to answer the research questions while t-test of independent samples was used to test the hypotheses at 0.05 level of significance.

Results

Research Question 1: What is the mean Performance score of the Students taught mathematics using Interactive lecture Method and those taught using Conventional Lecture Method?

Table 1: mean scores of the experimental and control group in Mathematics

Group	Number	Pretest Mean	Pretest SD	Posttest Mean	Posttest SD
Experiment	24	39.80	7.27	68.70	8.24
Control	18	39.35	7.71	54.80	7.75

The result in Table 1 shows that in pretest the experimental group had a mean score of 39.80 with standard deviation of 7.27 while the control group had a mean score of 39.35 with standard deviation of 7.71. For the posttest after the experiment, the experimental group had a mean score of 68.70 with SD of 8.24 while the control group had a mean of 54.80 with SD of 7.75. The result shows a difference in the mean scores of the experimental and control groups. The Implication is that the students taught using interactive lecture performed better than those taught using conventional lecture method.

Hypothesis 1: There is no significant difference on the mean performance score of students taught mathematics using Interactive lecture Teaching Method and those using Lecture Teaching Method.

Table 2: t-test analysis showing data analysis carried out on hypothesis one.

Group	Number	Mean	SD	t-cal	t-tab	Df	Decision
Experimental	24	39.80	7.27	4.88	1.96	38	Rejected
Control	18	39.35	7.71				

*alpha = 0.05

Table 2 shows that the calculated t-value of 4.88 at a significant level of 0.05 is greater than the critical t-value of 1.96. This means that there is a significant difference between the mean scores of SS 2 students exposed to Interacted Lecture Method (experimental group) and those taught using conventional Lecture method in Mathematics in favour of those taught using Interacted Lecture Method. Therefore, the null hypothesis was rejected.

Research Question 2: What are the mean performance scores of male and female Students taught Mathematics using Interactive lecture.

Table 3: Mean Score analysis showing male and female Students taught Mathematics using Interactive lecture method.

Gender	Number	Mean	SD
Male	14	68.00	7.90
Female	10	67.00	7.74

The result in Table 2 shows that the male students had mean of 68.00 with SD of 7.90 while the female students had mean score of 67.00 with SD of 7.74. This shows there is a slight difference between the performance male and female of students taught using interactive.

Hypothesis 2: There is the no difference in the mean performance score of students taught mathematics using Interactive lecture Method.

Table 4: t-test analysis showing data analysis carried out on hypothesis two.

Group	Number	Mean	SD	t-cal	t-tab	Df	Decision
Experimental	24	39.80	7.27	0.62	2.021	38	Rejected
Control	18	39.35	7.71				

Table 4 shows that the calculated t-value was 0.62 while the tabulated is 2.101 at 0.05 level of significance. This implies that there is no significant difference on the mean performance scores of male and female students exposed to Interactive lecture method in Mathematics. Therefore, the null hypothesis is accepted.

Discussion of Findings

The findings of this study show that the students taught using Interactive lecture Method performed better than those taught using the conventional lecture method. This implies that Interactive lecture Method in teaching and learning is an active teaching Method that is effective in improving students' performance in Mathematics. The findings of this study is in line with Yohanna et al. (2019), Kola (2017) and Tihoale (2014) which reported that Interactive lecture method is an effective teaching Method that helps to improve students' performance, conceptual understanding and also promotes students' attitude to learning.

The findings also reveal no significant difference between the performance scores of male and female students in the experimental group. The findings of this study also shows that Interactive lecture Method is gender friendly as the mean performance score of male and female students taught Mathematics with the Method showed no significant difference. The finding is in line with the findings of Karadeniz (2011), which reveal no significant differences in the performance score of male and female students. It is evident that Interactive lecture Method is an effective Method that is required in educational settings.

Conclusion

Structured Interactive lectures are better than conventional Lecture Method for teaching Mathematics topics solutions which need mentoring especially among slow learners. As the ease of topic increases both methods evidentially may perform well. With the growth in students' population in institutions of learning and limited resources required to take care of the population, Interactive lecture Method is one of the active Methods that is required for large class size. There is need for Mathematics teachers to embrace Interactive lecture Method in Mathematics lessons particularly for large classes that other Method cannot be defectively used.

Recommendations

Based on these research findings, it is recommended that;

1. Mathematics teachers should employ Interactive lecture in teaching and learning session.
2. School proprietors' should provide conducive environment for effective conduct of Interactive lecture Method mostly in teaching of Mathematics.

Suggestion for Further Study

Based on the findings of this study, the following suggestions were made;

1. Research should be conducted in another field of study with a large sample size to compare the inference.
2. The study should be conducted in another research area to enable generalization.

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**RELATIVE EFFECTS OF TWO MODES OF VIDEO INSTRUCTION
ON SENIOR SECONDARY SCHOOL STUDENTS' ACHIEVEMENT
IN ESSAY WRITING IN NSUKKA LOCAL GOVERNMENT,
ENUGU STATE**

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Abstract

This study investigated the relative effects of two modes of video instruction on senior secondary school students' achievement in essay writing. The study was carried out in public schools in Nsukka Local Government Area of Enugu State. The design adopted for the study was pretest-posttest non-equivalent groups quasi-experimental design. The population of the study was 3,424 SS2 students, while the sample size of 174 SS2 students drawn from four intact classes in four co-educational schools using purposive sampling was used. Narrative essay writing achievement test (NEWAT) which has a reliability index of 0.93 as determined through the use of Pearson Correlation formula was used for data collection. Mean and Standard Deviation were used to answer the research questions and ANCOVA was used to test the null hypotheses at 0.05 level of significance. The findings of the study revealed that students taught essay writing using video instruction with student-student interaction performed better than the students taught using video instruction without student-student interaction. The findings also showed that male students performed better than their female counterparts; and that there is a significant difference in the mean achievement scores of male and female students in essay writing in favour of male students. The study recommended among others that English language teachers should incorporate video instruction with student-student interaction in their teaching-learning process; and that in-service training should be regularly organized for teachers on how to use video instruction with student-student interaction in the teaching of essay writing.

Key Words: Video instruction, essay writing, achievement

Introduction

English language plays a unique role in the enhancement of communication among the different groups in multi-ethnic and multi-lingual countries including Nigeria. The role of the English language has not diminished since the attainment of independence rather it has increased. According to Adekola, Shoaga and Lawal (2014), the English language is an important factor in the educational system, more especially when it functions as a medium of instruction in schools. The position of the authors above is corroborated by the assertion of Ngonebu (2015) that the English language was institutionalized in the country as a language of administration, government, education, commerce, industries, law and inter-ethnic communication, religion, health and the rest. Oluikpe (2020) explains that as an official language in Nigeria, Nigerians have to speak English in addition to their mother tongues.

The indispensable roles played by English Language have made it necessary that students should try as much as possible to record positive academic achievement in language learning by acquiring the four basic skills. These skills are listening, speaking, reading, and writing. Listening and reading are known as receptive skills which allow one the opportunity of getting information via listening to speeches or reading works while speaking and writing are known as productive skills where learners are given the opportunity to produce knowledge either by speaking or writing. These four basic skills are interconnected and are all germane to the English language proficiency of students. This is particularly so because the four skills aid effective communication. Effective communication entails following instructions after reading what has been written, conversing, giving and receiving feedbacks which involve speaking and listening skills. This study is, however, interested in writing skill.

Writing is the act of communicating one's ideas, opinions and thoughts through the inscription of signs and symbols. It is an activity that humans do not acquire naturally but learn formally and consciously regardless of their geographical location. Ahmed (2010) defined writing as a reflective activity that requires enough time to think about a specific topic and to analyze and classify any background knowledge. Writing, according to Omaggio (2013) is best viewed as a continuum of activities that range from more mechanical or formal aspect of 'writing down' on one hand, to a more complex act of composing on the other hand. Borode (2014) sees writing as a way of representing on paper or other materials what is spoken, heard, read or thought about. Elizabeth (2014) explains that without writing, language learning remains incomplete.

As one of the major aspects of the English language, writing is tested at examinations such as West Africa Senior School Certificate Examination (WASSCE) and National Examinations Council (NECO) SSCE in the form of essay/composition writing and letter writing. Essay writing can be defined as a means of putting down one's ideas, and thoughts in a creative way. Essay writing is a skill that needs to be learnt by all and sundry. As a skill that requires conscious learning, a child learns to write at a very early age till maturity. Students' ability to acquire basic skills needed for understanding and expressing their ideas in their own words is facilitated by essay writing (Fakeye & Ohia, 2016).

Essay writing is of different types. They are expository essay, argumentative essay, descriptive essay and narrative essay. Expository essay is a detailed explanation of a process, an idea or a feeling. Argumentative essay aims at persuading the audience or readers to change their thinking, to get them involved in the ideas it presents and ultimately get them to adopt those ideas. As the name implies, it is usually in form of an argument or a debate for or against a particular motion or topic. Descriptive essay requires actual description of something using concrete and abstract images, and concrete and abstract ideas. The narrative essay, which is the focus of this study, is an essay that requires the writer to relate an event or an incident as an eyewitness would. The writer must ensure that the essay is interesting and convincing so that the reader would enjoy reading it and be led to believe that what he is reading is true. The narrative essay should follow the order in which the events took place, gradually moving the reader to the climax of the story. To impress the reader, the treatment of the subject must be systematic and attractive, and a writer can achieve this by allowing the narration of one event to flow into the next. With a good knowledge of narrative essay, one can write about a succession of events or story which may be factual or imaginary.

Irrespective of the importance of essay writing, various WAEC Chief Examiners' Reports have consistently shown that students' performance in narrative essay has been poor. According to the West African Examinations Council (WAEC) Chief Examiners' Report (2014), students' problem with writing include inadequate preparation manifesting itself in many forms like poor spelling, poor punctuation, inadequate exposure to idiomatic forms of English, lack of familiarity with the required formats, poor grammatical expressions, misinterpretation of questions, failure to adhere to rubrics, among others. Similarly, according to WAEC Chief Examiners' Report (2016), a good number of candidates could not write full length essays because they displayed a lack of grasp of the mechanics of the language. When looking into the reasons for the students' weakness in writing, the researchers realized that narrative essay is not being properly taught in schools.

While teaching narrative essay, the English language teacher usually enters the class, stands authoritatively in front of the students, introduces the topic, tells the students what the topic is all about, asks them questions if he/she wishes, and then gives them notes to copy. In this method of teaching, the teacher dominates classroom activities while the students listen passively and copy the notes given to them without making any input. Besides, the teacher hardly makes use of instructional media that usually arouse the interest of the students. It has been observed by the researchers that the poor performance of students in essay writing is connected with non-utilization of suitable instructional media. In line with this, Alaber (2017) states that many teachers go to class to teach their subjects without any materials to assist the learners and this negatively affects learning. Many teachers dominate classroom activities by not making use of instructional media. Consequently, the amount of students' participation is limited which often results in students not enjoying lessons and missing the benefits of intellectual discovery (Tella, Indoshi & Othuon, 2010). Based on the foregoing, there is the need to embrace better instructional ways of teaching students that are capable of enhancing their participation and academic achievement, especially through the use of instructional media.

Instructional media encompasses all the materials and physical means an instructor might use to implement instruction and facilitate students' achievement of instructional objectives. This may include traditional materials such as chalkboards, hand-outs, charts, slides, overheads, real objects, and videotape or film, as well as newer materials and methods such as computers, DVDs, CD-ROMs, the

internet, and interactive video conferencing. Types of instructional media according to Omenge and Priscah (2016) are the students themselves, regalia, pictures, boards, overhead projectors, flipcharts and computer-based presentation technology which combine both audio and visual materials. Naumy (2012) categorizes instructional media into three groups namely: Visual, Audio and Audio-Visual. Visual media are those media whose content is received through the sense of sight. Examples of these include books, pictures, photographs, charts, diagrams, maps, posters, drawings, real objects, chalkboard, cartoons and the like. Audio media are media that involve hearing. Examples of audio media are radio, tapes, telephone (handsets), disc recordings, telephone and sound distribution systems. Audio-visual media include films, television, video tapes, demonstrations and motion pictures.

From the foregoing, it could be deduced that the use of instructional media in the classroom has a lot of advantages. This, therefore, calls for the introduction of innovative instructional media that will not only allow for students' active participation in the classroom but may also be useful in the facilitation of their achievement and interest in essay writing. One instructional medium that may be useful in this regard is Video Instructions (VI). Video instruction (VI) is one of the technological tools that may aid the teaching and learning process. It is an instructional delivery approach that combines still and motion pictures in its pictorial presentation. Alibi (2013) observes that video, as a means of instruction, is capable of helping teachers teach effectively with learners understanding the lesson better.

Research studies have established that VI produced positive learning outcomes. For instance, previous studies in the United States of America have supported the idea that visual media along with traditional methods of teaching can increase student performance, indicating that students learned more with the visual media such as videotape (Eick & King, 2012). Similarly, in Nigeria, Aninweze (2014) conducted a study on the effect of two instructional delivery approaches -Video Taped Instruction (VTI) and Power Point Presentation (PPP) on students' achievement and retention in Biology in Nsukka Education Zone of Enugu State. The result of the study showed that the students taught Biology using VTI achieved and retained better than those taught using the PPP. In the context of this study, video instruction is defined as an instructional delivery approach that combines both aural and visual sensory channels to achieve various teaching and learning objectives. This study sought to ascertain if the students exposed to video instruction with student-student interaction will perform better in essay writing than those exposed to video instruction without student-student interaction.

To achieve the aim of this study, the researcher had two experimental groups. They are experimental group 'one' and experimental group 'two'. The experimental group one was exposed to video instruction with student-student interaction while experimental group two was exposed to video instruction without student-student interaction. The major difference between video instruction only and video instruction with student-student interaction is that in the former, students are taught narrative essay writing using only video, whereas in the latter the students are taught the same narrative essay using video and at the same time involving in interaction among themselves while the teacher serves as a guide. In other words, student-student interaction involves students reacting to each other's actions, attitude and opinions during class session. The researchers sought to use these two groups to determine students' academic achievement in essay writing.

Academic Achievement has to do with performance in school subject determined by assignment, test and examination scores. Bossaert, Doumen, Buyse and Verschueren (2011) define academic achievement as student's success in meeting short or long term goals in education. In the context of this study, academic achievement is defined as the positive or negative outcome of a learner's effort in school. Academic achievement is commonly measured by examinations or continuous assessment but there is no general agreement on how it is best tested or which aspects are most important (Odeh, Oguiche, & Dondo, 2015). A learner may record positive achievement if he or she performs very well and becomes successful in his or her examinations. On the other hand, a learner may record low achievement if he or she fails to perform well and becomes unsuccessful in his or her examinations. This study seeks to find out if the use of VI will enhance students' achievement in essay writing.

It is important to note that students' achievement in learning may be influenced by gender. Gender refers to the social attributes and opportunities associated between women and men and girls and boys (Adimora, 2012). It is behaviour and characteristics that bring about the differences between male and female (Akabogu & Ajiwoju, 2015). Men and women are socially different in that society lays down different social roles for them and expects different behaviour patterns from them. In many circumstances, women and men tend to use language differently but studies have shown obvious

discrepancies on the influence of gender in students' academic achievement in language learning. A study conducted by Omeje (2009) shows that males performed better than females in letter writing. Yet, study conducted by Musibau and Adigun (2010) indicated that gender has no significant influence on students' performance. The study carried out by Akabogu and Adeyemi (2012) shows that females perform better than males in expository essay writing. As a result of the differences in research findings, this study sought to find out whether the use of VI as a medium of instruction will have any significant difference in the achievement of male and female students in essay writing.

This study is timely in this technological era when a lot of technological tools are employed in teaching and learning. Students will benefit a lot from VI which was found to be effective because their achievement in essay writing in particular and English language as a whole will improve. Integration of VI in the teaching and learning of narrative essay will provide an opportunity for students to participate actively in the teaching and learning process, thereby reducing the boredom usually associated with the teaching and learning of essay writing. This study also provided opportunities for a better understanding of Flow theory which emphasizes holistic sensation that people feel when they act with total involvement. Based on above discussion, it is clear that there was need to carry out this study which sought to examine the effects of video instruction on students' academic achievement in essay writing in Nsukka Education Zone of Enugu State.

Research Questions

The following research questions guided the study:

1. What is the effect of Video Instruction (VI) with student-student interaction and Video Instruction (VI) without student-student interaction on the mean achievement scores of students in English essay writing?
2. What is the influence of gender on students' achievement in English essay writing?

Hypotheses: The following null hypotheses were formulated for the study and were tested at 0.05 level of significance:

- H₀₁:** There is no significant difference in the mean achievement scores of students taught essay writing using Video Instruction (VI) with student-student interaction and those taught using Video Instruction only.
- H₀₂:** Gender has no significant effect on the mean achievement scores of students in essay writing.

Method

This study employed pretest-posttest non-equivalent groups quasi-experimental design. The study was conducted in Nsukka Local Government Area of Enugu State. The population of this study consisted of the entire 2018/2019 SSS 2 students in public secondary schools in Nsukka Education Zone, numbering 3424. The sample consisted of 174 SSS II student (80 males and 94 females) in four intact classes in 4 secondary schools which were purposively selected from the area of the study. Narrative essay writing achievement test (NEWAT) which has a reliability index of 0.93 as determined through the use of Pearson Correlation formula was used for data collection. To achieve the aim of this study, the researcher used two experimental groups. They are experimental group one and experimental group two. The experimental group one was exposed to video instruction with student-student interaction while experimental group two was exposed to video instruction without student-student interaction. The treatment lasted for six weeks. The researchers trained the English Language teachers on how to use the lesson plan that was prepared by the researchers on the use of Video Instruction in the teaching of essay writing before the commencement of the experiment. Data collected were analyzed using Mean and Standard Deviation to answer the research questions and ANCOVA to test the null hypotheses at 0.05 level of significance.

Results

The results were presented in line with the research question and hypotheses that guided the study.

Research Question 1: What is the effect of Video Instruction (VI) with student-student interaction and Video Instruction (VI) without student-student interaction on the mean achievement scores of students in English essay writing?

Table 1: Mean (\bar{X}) and Standard Deviation (SD) of achievement scores of students taught using video instruction with student-student interaction and video instruction without student-student interaction

Group	n	Pretest		Posttest		Adjusted		Mean
		\bar{X}_1	SD ₁	\bar{X}_2	SD ₂			
Experiment 1	86	15.97		3.23		27.10	4.58	27.24
Experiment 2	88	14.49	3.06			22.65	3.57	22.51

The data on Video Instruction (VI) involving student-student interaction and those taught using Video Instruction (VI) without student-student interaction in Table 1 revealed that the posttest mean score for students taught using video instruction student-student interaction was (\bar{X} =27.10, SD = 4.58) and adjusted mean of 27.24 while that of students taught with video instruction was (\bar{X} =22.65, SD =3.57) and adjusted mean of 22.51. Students taught English language essay writing using video instruction (involving student-student interaction) therefore, performed better than students taught with video instruction without student-student interaction.

Research Question 2: What is the influence of gender on the mean achievement scores of students in essay writing?

Table 2: Mean and Standard Deviation (SD) achievement scores of students according to gender

Gender	n	Pretest		Posttest		Adjusted		
		\bar{X}_1	SD ₁	\bar{X}_2	SD ₂		\bar{X}	
Male	81	15.59	3.35			25.37	4.56	25.59
Female	93	14.89	3.08	24.40	4.73		24.21	

Table 2 showed posttest mean score of 25.37 (SD = 4.56) and adjusted mean of 25.59 for male students, while the female students had posttest mean score of 24.40 (SD =4.73) and adjusted mean of 24.21. Male students therefore, performed better than their female counterparts in English language essay writing.

H₀₁: There is no significant difference in the mean achievement scores of students taught essay writing using Video Instruction (VI) with student-student interaction and those taught using Video Instruction only.

Table 3: Analysis of covariance of students’ English language essay writing achievement scores by video instruction and gender

Sources Of Variation	Sum of Squares	Df	Mean Square	F	Sig	Effect Size
Covariates						
Pretest	10.101	1	10.101	.612	.435	.007
Main effects (combined)	948.778	2	474.389	28.730	.000	
Group	867.377	1	867.377	52.530	.000	.241
Gender	81.401	1	81.401	4.930	.028	.028
Total	3758.115	173	21.723			

Data in Table 3 showed a statistically significant main effect for instructional video $F(1,169) = 52.530, p = .000$, partial $\eta^2 = .241$. The null hypothesis, therefore, was rejected, indicating that there was a significant difference in the mean achievement scores of students taught using video instruction student-student interaction and those taught using video instruction. The adjusted score for video instruction student-student interaction was 27.24, while that for video instruction was 22.51 as reflected in Table 1. The difference was in favour of video instruction student-student interaction. Video instruction student-student interaction, therefore, was superior to video instruction in English language essay writing. The eta-squared statistic (.241) indicated a small effect.

H₀₂ There is no significant difference in the mean achievement scores of male and female students in English language essay writing.

Table 3 revealed a significant main effect of gender $F(1,169) = 4.930, p = .028$, partial $\eta^2 = .028$. The null hypothesis was rejected, indicating that there was a significant difference in the mean achievement scores of male and female students in English language essay writing. The eta-squared statistic (.028) indicated a very small effect.

Discussion of Results

Findings on the effect of two modes of Video Instruction (VI) on students' achievement in English language essay writing indicate that students taught English language essay writing using video instruction with student-student interaction performed better than the students taught English language essay writing using video instruction without student-student interaction. This finding is in line with the observation of Eick and King (2012) that student-student interaction supports and motivates students to achieve a higher cognitive level and to find a personal meaning for learning.

Better performance of students taught English language essay writing using video instruction with student-student interaction could be attributed to the fact that in students-students interaction pattern, learners react to each other's actions, attitude and opinions during class session. Students are also given multiple opportunities to discuss ideas in small groups, and these are capable of supporting and motivating students to achieve a higher cognitive level, find personal meaning for learning, and achieve better in essay writing.

The findings of this study validate flow theory by Csikszentmihalyi (1975). The theory emphasizes deep concentration on activities and the consequences of this deep involvement. As students engage in student-student interaction, they are usually deeply involved in the learning activities, and this will invariably improve their understanding of the topic and academic achievement.

Findings of the study indicate that male students performed better than their female counterparts in English language essay writing. There was significant difference in the mean achievement scores of male and female students in English language essay writing. The findings are in line with that of Omeje (2009) who found out that males perform better than females in letter writing. This finding contradicts that of Musibau and Adigun (2010) who in their study found out that sex (gender) has no significant influence on students' performance. This finding also disagrees with that of Akabogu and Adeyemi (2012) who discovered that there was significant influence of gender on students' performance in summary writing, and that female students outperformed male students.

The finding of this study which shows that male students performed better than their female counterparts in English language essay writing could be as a result of the fact that males are more inclined to watching videos. When videos which males tend to watch more than females are used for classroom instruction, males are likely to appreciate the use of the media, and also understand whatever is taught through them more than females.

Conclusions

From the findings of this study, it could be concluded that although both video instruction with student-student interaction approach and video instruction without student-student interaction enhanced students' achievement in English language essay writing, the use of video instruction with student-student interaction enhances more students' achievement in English language essay writing since the group achieved slightly higher than their counterparts taught without student-student interaction. Male students performed better than their female counterparts in English language essay writing.

Recommendations

Based on the findings of this study, the following recommendations are made:

- English language teachers should fully incorporate video instruction with student-student interaction in their teaching-learning process to help boost students' achievement in essay writing.
- Government and education authorities should give adequate training to teachers and student teachers on the use of video instruction with student-student interaction by organizing workshops, seminars, conferences and in-service training.
- Curriculum developers should endeavour to incorporate the video instruction with student-student interaction as one of the innovative approaches to the teaching of essay writing in the next review of the curriculum.

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**RE-ENGINEERING THE TEACHING AND LEARNING OF
CULTURAL AND MORAL VALUES IN SECONDARY SCHOOLS FOR
SUSTAINABLE DEVELOPMENT IN NSUKKA EDUCATION ZONE**

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Abstract

The study focused on re-engineering teaching and learning of cultural and moral values among secondary school students for sustainable development in Nsukka Education Zone. The need for the study was as a result of incessant indulgence of secondary school students in crime, corruption and negligence of rule of law. The study adopted descriptive survey research design. Three research questions were posed for the study and three null hypotheses were formulated. The population of the study was 2442 SSII students and 820 teachers in public schools in Nsukka Education Zone. Multistage sampling procedure was used to select 240 students and 72 teachers from six schools who were used as sample for the study. The instrument for data collection was questionnaire titled: "Cultural and Moral Values in Schools Questionnaire" (CMVSQ). The instrument was validated by three experts and reliability estimate was carried out using Cronbach Alpha Correlation Coefficient. Data collected for the study were analyzed using mean and standard deviation. Findings of the study indicated that cultural and moral values such as respect for elders, show of hospitality, tolerance, cooperation, truthfulness among others should be taught in schools. On the perceived impact, the findings showed that teaching and learning of these values in schools will drive the students away from crime, corruption and imbibe in them the spirit of hard work and good behavior. The study recommended that teaching and learning of cultural and moral values in schools should be reversed as this will go a long way in ameliorating crime indulge among the Nigerian youth.

Keywords: Re-engineering, teaching, learning, cultural and moral values

Introduction

Cultural and moral values are two crucial values in every society for achieving sustainable development. Every society has norms. Norms are cultural standards that prescribe how human beings should behave in a society (Martin, 2003). In other words, norms are part of a society's culture. Culture refers to all the accepted ways of life of a group in terms of their ideas, beliefs, practices and values (Okolo, 2021). It is under culture that societies set up their norms in form of laws, folkways, mores and taboos. Laws are rules that govern a group; Folkways provide individual's behavior expectations; Mores differentiate good from bad, moral from immoral behaviors, while Taboos stipulate unacceptable behaviors that need not exist or need to be punished by authority when committed (Haralambus, Holborn, Chapmans & Moore, 2013). All these constitute a society's cultural and moral values. Values are conceptions of what is desirable and important to people in a society (Ezinwa, 2013). Values generally are all the accepted and cherished behavior in a society. They are all those behaviors, ideas and things considered to be good and important to people and society in general such as helping one another, working hard to succeed in life, living in harmony among others. Kingsley and Imoh (2021) outlined values in Nigeria to include but not limited to honesty, goodness, loyalty, fairplay, respect for human dignity and life, truthfulness. Values are extracts from norms in which cultural and moral values are among.

Cultural values are all the core principles and ideal behaviours, attitude and things that a society set up and preserve to elongate the society. These are set up according to a society's culture. Essien (2020) defined cultural values as the core principles and ideals of life upon which a community, society or group exists, and are passed on from generation to generation. Cultural values are what make societies unique and strong by indicating behaviors and actions that are good or bad for people in the society. In African society, (Nigeria inclusive), there are some forms of behaviors, actions and conduct that are approved or not approved under the cultural values. Examples of the approved ones are (but not limited to) the behavior of honesty, truthfulness, kindness, integrity, hard work, responsibility, trustworthiness, love, patience, hospitality. Examples of unapproved are (but not

limited to) the behavior of killing, kidnapping, stealing, lying, hatred, rape. Cultural values are good for societal growth. In the opinion of Ezinwa (2013), cultural values do the following on people; not only fight corruption and crime but also ensures creativity and promote human development; encourages social order and conformity in society; promotes the spirit of oneness and love; promotes the fear of God; promotes philosophical thinking; creates group feeling. Davison and Onwubiko as cited in Amali (2011) stated that cultural values in Nigeria teach and stimulate people with the sense of communication among communities and community members; good relationships based on maintaining empathy; consideration and compassion for fellow human beings; help for one another and reward for good deeds; recognize one another as fellow human beings; rejection of individualism; seeking for knowledge, being generous, working hard to succeed, showing affectionate and maintaining intimacy as well as avoiding the spirit of killing, stealing, adultery and other criminal acts in the society.

Moral values on the other hand, are those ethical values that serve as a guide on how one should behave in a society. Moral values are what assist people to choose between right or wrong behavior in a society. Mrunal (2023) defined moral values as those lessons and principles that direct people's behavior, choices and actions in the right way of the peoples' culture such as honesty, respect, love, integrity, truthfulness, transparency. Moral values like the cultural values help to maintain peace, progress and stability in a society for sustainable development. According to Mrunal (2023), imbibing moral values in children means: developing positive character traits such as love, respect, compassion and kindness in them; giving them viewpoints on how to choose the best among the facets of life; teaching them how to discern between good and bad, right and wrong behavior; enabling them to stay focused in the right direction; increasing their self confidence and guiding them against harmful influence of peer groups, social media and the society at large. Anwuluora and Asike (2015) stated also that teaching of moral values means teaching truth, justice, hardwork and good character. In other words, Cultural and moral values are interrelated as they both are concerned about good conduct of behavior in society. In this study, they can be used interchangeably or together as they have almost the same meaning.

However, cultural and moral values are important to every society for sustainable development. Sustainable development is a development process that aims at developing and achieving the social, economic and environmental needs of people in a society without compromising the ability of the future generation to gratify their own needs (United Nations, 2016). Sustainable development is a development of knowledge, skills and values required to accomplish the needs of people of today and that of the generation to come through achieving social, economic and environmental development. In other words, sustainable development encompasses every developmental activity that can help people to live comfortably and achieve freedom in a society of today and that of the future in the areas of social, economic, environmental and political lives. According to UN (2016), achievement of social needs and social freedom is one of the bases of sustainable development. Without cultural and moral value orientation on individuals, sustainable development cannot be achieved because they cultivate in a person the spirit of creativity, hardwork, transparency, accountability, honesty among others which help to develop socially, economically and environmentally. Kingsley and Imoh (2023) asserted that the values of honesty, transparency, accountability and fairness help to maintain peace, unity, stability and diligence required by people particularly the youth for sustainable development.

Research has it that the youth are at the heart of every development. According to Nweke, Oyeoku, Ezech and Nwankwo (2018), youth are men and women who are between childhood and adulthood age, and who are considered to be young, energetic, vibrant and resourceful to engage in economic, social and political enterprises that will benefit them as individuals and the entire society. This means that the youth are the most important age bracket set of people to achieving sustainable development. This is achieved through giving them proper support and training in character and learning especially in school. School is an institution that has the role of impacting the right knowledge, skills and values to people especially children and youth, (Okolo 2021). In schools, educators and teachers teach the students the basic values such as respect for elders/authority, integrity, fairness, empathy among others. Dania and Igbani (2016) insist that schools restore the values of honesty, accountability, cooperation, discipline, industrious, respect for rule of law, self confidence among others on students, and stated that this could be achieved best when these values are taught using local languages and mother tongue. In 2015, the International community identified education in schools as a crucial tool in preventing crime, drug use and extremism among youth, and this was followed by the Federal Ministry of Education and United Nations Office on Drug and Crime

(UNODC) launching the Education for Justice (E4J) initiative in Nigeria to seek to prevent crimes and promote culture to lawfulness through education (UNODC, 2022).

Schools which are supposed to be inculcating in a child these values have failed to do so. In Nigeria, research and personal observation show that the teaching, learning and practice of these values have declined giving way to corruption, theft, crimes and other anti-social behaviours especially among the youth. Dania and Igbani (2016) lamented that as a result of colonialism and imperialism, the people of Nigeria have rejected the values of cultural and moral values, referring to them as timid and have embraced the growing of capitalism introduced by technology and modernization, and which exhibits individualism and competitiveness. Kola and Fumilayo (2021) agreed that cultural and moral values in societies, particularly in Nigeria are becoming eroded and are no more seriously taught in schools, giving way to crime indulgence particularly on teachers and students. Okolo (2021) opined that these values are eroding because parents who should be the first teachers to teach their children these values, as a result of their occupations send their children early to school without proper inculcation of the norms in them, leaving them to roam about the streets at the mercy of their peer groups. The author blamed also different religious groups, worshippers and leaders who inculcate different ideas, beliefs and practices of cultural values, leaving the generally accepted cultural and moral values of society, exposing children to perceive cultural values differently. Consequently, in Nigeria, elders are no longer accorded respect, discipline is gradually phasing out, family values which help to train children at home are no longer obtainable, there is increase in corruption and other criminalities in the society. Dania and Igbani (2016) asserted that the Nigerian youth have turned to corruption, armed robbery, indiscipline, dishonesty, prostitution, child trafficking and frauds of all sorts. Report on newspapers and social media show that crime incidence such as kidnapping, mass killings, ritual killings, theft and other heinous crimes that result to loss of lives and property are on the increase daily, and most of them are associated with the youth and even toddlers. These acts are at the detriment of Nigeria culture, as well as development particularly sustainable development, thus the need for re-engineering of these values in schools especially secondary schools. The choice of secondary schools is that most of the students in this level of education are mostly youths and adolescents who are susceptible to learning of criminal and delinquent acts. They are susceptible to moral reasoning and are easily exposed and convinced to commit crime. Nwikina (2013) supported this by stating that most students in secondary schools indulge in crimes of all sorts such as examination malpractice, cultism, bribery and corruption, sexual harassment, drug abuse, stealing among others. Anyebe (2011) lamented also that there is high rate of value disorientation in schools which has resulted to high breed of youths in the den of robbers, campus prostitution, cultists, Internet fraud stars among others. This could be as a result of pursuit of material gains and neglect to value development training.

However, schools form one of the important agencies for re-engineering these important values. Re-engineering in education means to reform, redirect or redefine existing concepts, policies, structure or strategies to achieve set goals (Afunugo, 2017). This means that the teaching and learning of cultural and moral values had been in existence but is collapsing as a result of some social, economic and political challenges. In the education objectives according to the National Policy on Education cited in Afunugo (2017), the inculcation of the right values and attitudes on students forms one of the crucial tools for societal growth. In schools, educators and teachers teach the students the basic values such as respect for elders/authority, integrity, fairness, empathy among others. UNODC (2022) stated that teaching these values in schools will make the students to be more resilient against crimes, violent extremist ideologies and to help them better understand problems that can undermine the rule of law and encourage the students to actively engage in the communities and future professions, in the promotion of a culture of lawfulness, ensure commitment and emotional reasoning etc. Dania and Igbani (2016) maintained that schools (secondary schools inclusive) restore the values of honesty, accountability, cooperation, discipline, industrious, respect for rule of law, self confidence among others and stated that this could be achieved best when these values are taught using local languages and mother tongue. In other words, there are better methods of restoring these cultural values in schools such as translating and teaching it in local language, show of examples (role modeling), inculcating it in school curriculum among others. Setting forth code of ethics in written documents (in form of handbook) to explicit benchmark for judging school's policies, activities and individual conduct serves as a unifying force for maintaining law and order and restoring cultural values (Nwikina, 2013). United Nations Office on Drug and Crime (UNODC) (2022) added that cultural values can be restored in schools through integration of crime prevention and other rule of law related topics into the education curriculum at all levels; sensitization of teachers, professors, policy makers and education stakeholders and providing practical and interactive materials and tools such as

board games and videos to promote the understanding of the basic concepts such as anticorruption, counter-terrorism, crime prevention, criminal justice, firearms etc and help the students to identify, prevent and resolve moral, ethical or legal dilemmas. Mrunal (2023) revealed also that these values can effectively be taught and learnt when the teachers and school administrators live by show of examples, tale of stories on personal and other experiences, or reward on good behaviours and punishment on bad ones. This shows that re-engineering of the teaching and learning of these values in secondary schools will go a long way to correcting some behavior anomalies among the students for achieving sustainable development. It is based on this that the researchers intended to find out the need for re-engineering of teaching and learning of cultural and moral values in secondary schools in Nsukka Education Zone of Enugu State.

Purpose of the study

The main purpose of the study was to investigate the need for re-engineering teaching and learning of cultural and moral values in secondary schools in Nsukka, Education Zone.

Specifically, the study intended to:

1. Ascertain important cultural and moral values that need to be re-engineered in secondary schools in Nsukka Education Zone.
2. Find out the impact of cultural and moral values on secondary school students in Nsukka Education for sustainable development.
3. Determine the strategies for effective teaching and learning of cultural and moral values in secondary schools in Nsukka Education Zone.

Research Questions

1. What are the necessary cultural and moral values that need to be taught and learnt in secondary schools in Nsukka Education Zone?
2. What are the perceived impacts of cultural and moral values on secondary school students for sustainable development in Nsukka Education Zone?
3. What are the strategies that can be adapted for effective teaching and learning of cultural and moral values in secondary schools in Nsukka Education Zone?

Research Hypotheses

The following null hypotheses guided the study

1. There is no significant difference in the mean ratings of teachers and students in cultural and moral values to be taught and learnt in secondary schools in Nsukka Education Zone.
2. There is no significant difference in the mean ratings of teachers and students on the impact of cultural and moral values on secondary school students in Nsukka Education Zone.
3. There is no significant difference in the mean ratings of teachers and students on the strategies for effective teaching and learning of cultural and moral values in secondary schools in Nsukka Education Zone.

Methodology

The study adopted a descriptive research design and was carried out in Nsukka Education zone, comprising of Nsukka, Uzo-Uwani and Igbo-Etiti Local Government Areas of Enugu State. The population of the study was 2,442 SSII students and 820 teachers in public secondary schools in the zone. Simple random sampling technique was used to select 4 schools from each Local Government Area, and a total of 12 schools were selected using simple random sampling technique. A total of 240 students and 72 teachers were selected and used as sample. The instrument for data collection was questionnaire titled "Cultural and Moral Values in Schools Questionnaire" (CMVSQ). A four-point rating scale of Strongly Agree (SA) 4; Agree (A) 3; Disagree (D) 2 and Strongly Disagree (SD) 1 points were used for responses. The questionnaire was face-validated by three experts, one from the department of Educational Foundations (Sociology of Education unit), one from department of Social Science Education and one from Measurement and Evaluation, Science Education, all from the Faculty of Education, University of Nigeria, Nsukka. Corrections were made according to the experts' directives. To determine the internal consistency of the instrument, trial testing was carried out in Obollo-Afor Education zone using 20 respondents. Cronbach's Alpha method was used to determine the internal consistency of the items. Reliability indices average of 0.82 was obtained. Mean and Standard deviation were used to analyze the data collected, while t-test statistics was used to test the hypotheses at 0.05 level of significance. Mean responses of 2.50 and above were taken while those below 2.50 were rejected or disagree.

Results

Research Question 1: What are the cultural and moral values that are needed to be taught and learnt in secondary schools in Nsukka Education zone?

Table 1: Mean analysis of the ratings of teachers and students on the cultural and moral values that are needed to be taught and learnt in secondary schools

Item Statement	Group	N	Mean	Std.	
				Deviation	Remark
1. Respect for elders	Teachers	72	3.18	.86	Agree
	Students	240	3.28	.63	Agree
2. Respect for authority	Teachers	72	3.15	.86	Agree
	Students	240	2.90	.82	Agree
3. Love for one another	Teachers	72	3.18	.81	Agree
	Students	240	2.87	.63	Agree
4. Hard work	Teachers	72	3.30	.78	Agree
	Students	240	3.02	.72	Agree
5. Sacredness of life	Teachers	72	3.26	.75	Agree
	Students	240	2.88	.81	Agree
6. Co-operation	Teachers	72	3.18	.81	Agree
	Students	240	3.10	.81	Agree
7. Transparency	Teachers	72	3.15	.78	Agree
	Students	240	3.00	.65	Agree
8. Honesty	Teachers	72	2.43	.96	Agree
	Students	240	2.55	.85	Agree
9. Accountability	Teachers	72	2.91	.89	Agree
	Students	240	2.57	.78	Agree
10. Compassion for others	Teachers	72	2.45	1.00	Agree
	Students	240	2.45	.94	Agree
OverallMean	Teachers	72	3.00	.50	Agree
	Students	240	2.86	.43	Agree

Table 1 shows that the mean ratings of both teachers and students on items 1 to 10 are more than the criterion mean of 2.50 implying that teachers and students agreed to the items as the cultural and moral values that are needed to be taught and learnt in secondary schools. However, the overall mean ratings of 3.00 and 2.86 for the teachers and students respectively indicate that the teachers had higher mean rating than the students.

H₀₁: There is no significant difference in the mean ratings of teachers and students on cultural and moral values to be taught and learnt in secondary schools in Nsukka Education Zone.

Table 2: t-test analysis of the difference in the mean ratings of teachers and students on cultural and moral values to be taught and learnt in secondary schools

Group	N	Mean	Std. Deviation	df	t	Sig
Teachers	72	3.00	.50	310	1.452	.078
Students	240	2.86	.43			

Table 2 revealed that there is no significant difference in the mean ratings of teachers and students on the cultural and moral values to be taught and learnt in secondary schools in Nsukka Education Zone, $t(310) = 1.452, p = .078$. Thus, the null hypothesis is not rejected since the probability value of .078 is greater than the .05 level of significance.

Research Question 2. What are the perceived impacts of cultural and moral values on secondary school students in Nsukka Education zone?

Table 3: Mean analysis of the ratings of teachers and students on the perceived impacts of cultural and moral values on secondary school students

Item Statement	Group	N	Mean	Std.		Remark
				Dev		
11. Help to drive the students away from harmful influence of peer group and social media	Teachers	72	3.83	.83		Agree
	Students	240	3.77	.77		Agree
12. Help to develop self confidence in them to face the uncertainties of life	Teachers	72	3.44	1.03		Agree
	Students	240	3.97	.82		Agree
13. Help them to develop positive character traits such as love, honesty, respect, humility to promote peace and unity in society.	Teachers	72	3.61	.79		Agree
	Students	240	3.58	.97		Agree
14. Enable them to focus in the right direction of life for success.	Teachers	72	3.37	.91		Agree
	Students	240	3.50	.91		Agree
15. Create in them positive and sensible thought that can make them to succeed in life	Teachers	72	3.22	.73		Agree
	Students	240	3.06	.84		Agree
16. Help to curb vices such as corruption, crime, dishonesty, wickedness, idleness, laziness and hatred among the students.	Teachers	72	3.69	.89		Agree
	Students	240	3.99	.84		Agree
17. Help to promote hard work and diligence among the students	Teachers	72	3.86	.73		Agree
	Students	240	3.74	.78		Agree
OverallMean	Teachers	72	3.67	.48		Agree
	Students	240	3.65	.50		Agree

Table3 shows that the mean ratings of teachers and students on items 11 to 17 are more than the criterion mean of 2.50. This implies that the statements of items 11 to 17 are the perceived impacts of cultural and moral values on secondary school students in Nsukka Education zone. However, the overall mean ratings of 3.67 and 3.65 for the teachers and students respectively indicate that the teachers had slightly higher mean rating than the students.

Ho₂: There is no significant difference in the mean ratings of teachers and students on the impact of cultural and moral values on secondary school students in Nsukka Education Zone.

Table 4: t-test analysis of the difference in the mean ratings of teachers and students on the perceived impact of cultural and moral values on secondary school students

Group	N	Mean	Std.		T	Sig
			Deviation	Df		
Teachers	72	3.67	.48	310	.327	.744
Students	240	3.65	.50			

Table 4 revealed that there is no significant difference in the mean ratings of teachers and students on the perceived impact of cultural and moral values on secondary school students in Nsukka Education Zone, $t(310) = .327, p = .744$. Thus, the null hypothesis is not rejected since the probability value of .744 is greater than the .05 level of significance.

Research Question3. What are the strategies that can be adopted for effective teaching and learning of cultural and moral values in secondary schools in Nsukka Education zone?

Table 5: Mean analysis of the ratings of teachers and students on the strategies that can be adopted for effective teaching and learning of cultural and moral values in secondary schools

Item statement	Group	N	Mean	Std. Dev	Remark
18. Use of local languages	Teachers	72	3.58	.76	Agree
	Students	240	3.63	.89	Agree
19. Inculcating the teaching content in school curriculum	Teachers	72	3.41	.88	Agree
	Students	240	3.40	.89	Agree
20. Making school policies on ethical values and disciplinary behaviours	Teachers	72	3.50	.87	Agree
	Students	240	3.82	.80	Agree
21. School authority showing good conduct as role model	Teachers	72	3.79	.60	Agree
	Students	240	3.73	.73	Agree

22. Producing school code of conduct in written form in form of handbook for students and teachers	Teachers	72	3.81	.61	Agree
	Students	240	3.86	.63	Agree
23. Rewarding good behavior in school	Teachers	72	3.72	.77	Agree
	Students	240	3.57	.77	Agree
24. Punishing the offenders in school	Teachers	72	3.69	.78	Agree
	Students	240	3.37	.85	Agree
25. Teaching the students using audio-visual materials to show some good or bad and characters and their implications	Teachers	72	3.58	.80	Agree
	Students	240	3.30	.88	Agree
26. Telling the students fictitious or real-life stories or folktales that teach good or bad behavior	Teachers	72	3.56	.86	Agree
	Students	240	3.28	.79	Agree
Overall Mean	Teachers	72	3.58	.52	Agree
	Students	240	3.43	.59	Agree

Table 5 shows that the mean ratings of teachers and students on items 18 to 26 are more than the criterion mean of 2.50 indicating that the statements of items 18 to 26 are the strategies that can be adopted for effective teaching and learning of cultural and moral values in secondary schools in Nsukka Education zone. However, the overall mean ratings of 3.58 and 3.43 for the teachers and students respectively indicate that the teachers had slightly higher mean rating than the students.

H₀₃: There is no significant difference in the mean rating of teachers and students on the strategies for effective teaching and learning of cultural and moral values in secondary schools in Nsukka Education Zone.

Table 6: t-test analysis of the difference in the mean ratings of teachers and students on the strategies for effective teaching and learning of cultural and moral values in secondary schools

Group	n	Mean	Std. Deviation	df	T	Sig
Teachers	72	3.58	.52	310	1.188	.060
Students	240	3.43	.59			

Table 6 revealed that there is no significant difference in the mean rating of teachers and students on the strategies for effective teaching and learning of cultural and moral values in secondary schools in Nsukka Education Zone, $t(310) = 1.188, p = .060$. Thus, the null hypothesis is not rejected since the probability value of .060 is greater than the .05 level of significance.

Discussion of Results

The findings of research question one revealed that the following cultural and moral values need to be taught and learnt in secondary schools in Nsukka Education Zone; This will go a long way for fighting corruption, crime and as well help to achieve sustainable development by 2030, respect for elders, love for one another, hardwork, sacredness of life, honesty, transparency. The test of hypothesis one showed that there is no significant difference between mean scores of teachers and students on the cultural and moral values to be taught and learnt in secondary schools in Nsukka Education Zone. This implies that the aforementioned cultural and moral values are necessary to be taught in schools to help train the students in the right direction of behavior or ethics required for peace, progress and stability of a nation and for sustainable development. The findings are in line with the opinion of Davison and Onwubiko in Amali (2011) and Mrunal (2023) who stated that reward for good deeds, recognition of one another as fellow human being, seeking for knowledge, working hard to succeed, showing affectionate to people, being truthful, honest and maintaining transparency, accountability and integrity are cultural and moral values that need to be imbibed in children.

The findings of research question two revealed that, the teaching and learning of cultural and moral values to secondary school students have the following perceived impacts on them; help to drive the students away from harmful influence of peer group and social media; help to develop confidence in them to face the uncertainties of life; help them to develop positive character traits; enable them focus on the right direction of life for success; help to curb vice such as corruption, crime, laziness and hatred and to work hard to succeed in life. The test of hypothesis three showed that there is no significant difference between the mean scores of teachers and students of secondary schools on the perceived impact of teaching and learning of cultural and moral values in secondary schools. This implies that the teaching and learning of cultural and moral values have some positive impact on the students, and this can help to achieve a sustainable development. This is in agreement with the

statement of UNODC (2022) that teaching and learning of cultural and moral values in schools make the students to be more resilience against crimes, violence and better understanding of rule of law, as well as encourage them work hard in order to succeed in society.

The findings of research question three revealed that these cultural and moral values can be taught and learnt through the following strategies: use of local languages; inculcating the content of teaching in the school curriculum; living by examples as a role model; producing school code of conduct in written form as a guide; punishing offender and rewarding good behavior in the schools. The test of hypothesis showed that, there is no significant difference between the mean scores of teachers and that of the students on the strategies that can be adopted for effective teaching and learning of cultural and moral values in secondary schools. The findings therefore indicate that the strategies of use of local languages, living by example; inculcating cultural and moral values in school curriculum among others can serve as strategies for teaching and learning of cultural and moral values in schools. These are in line with Dania and Igbani (2016) who maintained that cultural and moral values such as honesty, accountability, cooperation, discipline among others, can best be taught through the use of local languages and mother tongue. The findings are also in line with the statements of Nwikina (2013) who insisted that the teaching and learning of these values can be done through setting of code of ethics in written documents which serve as school policy; UNODC (2022) who stated that the values can be taught and learnt through the integration of the topics in school curriculum as well as use of practical and interactive materials and tools; Mrunal (2023) revealed that show of good examples, tale of stories and punishing or rewarding of behaviours serve as good strategies for teaching and learning of cultural and moral values to children.

Conclusion

Based on the findings, it can be concluded that there is the need to re-engineer the teaching and learning of cultural and moral values in secondary schools to help drive the students who are prospective youths of tomorrow away from crime, corruption and other social vices as well as help build in them the spirit of love for one another, honesty, hard work, transparency, and accountability that can help to promote peace, unity, and productivity for the achievement of sustainable development.

Recommendations

It is recommended that school administrators, teachers and students should sit up and be more serious with the teaching and learning of cultural and moral values by integrating them in school curriculum, school policy and school handbook for easy adherence.

Different effective strategies such as use of mother tongue, story-telling, living by example among others should be applied in the teaching and learning of these values in schools.

Schools should encourage parents to collaborate in the teaching and learning of these values for easy internalization of them in the children as it is for the benefit of the students, teachers, parents and the society at large.

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**PSYCHOMETRIC QUALITIES OF JUNIOR SECONDARY SCHOOL
CERTIFICATE EXAMINATION QUESTIONS OF BASIC SCIENCE
AND TECHNOLOGY**

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Abstract

The purpose of the study was to analyze some Psychometric qualities of Junior Secondary School Certificate Examination (JSSCE) of Basic Science and Technology (BST) questions used in 2021 Basic Education Certificate Exams (BECE) conducted by NECO. Specifically the study evaluated the reliability, difficulty, discrimination, distractor indices of 2021 BST in BECE. The negligence of psychometric qualities assessment of teacher-made tests and standard tests by practicing teachers and the absolute importance of item qualities evaluation motivated the researchers to carry out this study. The design of the study was instrumentation research design and the study area was Nsukka Education zone of Enugu State. The population of the study was all 901 Junior Secondary Students (JSS 3) in Science Vocational and Technical Colleges in the Education Zone in 2021/2022 academic session. The instrument for the study was BST questions of BECE 2021. The study was guided by four research questions that were analyzed using Correlation, frequency, percentages, under Classical Test Theory (CTT) framework. The major findings of the study showed that BECE 2021 basic science and technology objective items have inadequate difficulty indices (only 27 (45%) out of 60 items within the acceptance range), poor discrimination indices (38 items ie 80% of the items are poor with only 12 items ie 20% that are with fairly good discrimination. But the instrument in question has adequate distractor indices (154 options ie 85.6% are good distractors) and is highly reliable (0.86). The results of the study will provide an opportunity to change the way MCQs are developed and used in educational assessment. Based on some desirable qualities of 2021 BST of BECE as revealed by the findings it is recommended that practicing teachers frequently evaluate teacher-made tests vis-à-vis standard exam questions to enthrone standard internal assessments.

Keywords: *Psychometric, BST, BECE, CTT, MCQ*

Introduction

Education is the most fundamental and vital aspect of social inquiry and the harnessing of human resources. It is commonly known that assessment drives learning. Properly and carefully constructed tests by educators will enhance educational functions. Increasingly multiple choice questions (MCQs) are used for assessing students' performance. Therefore, there is a growing concern about the quality of the tests that are used for assessment. A wide range of content and objectives for a large number of students are assessed through MCQs. Few concede that it is time-consuming and challenging to develop MCQs for measuring higher cognitive skills (Vyas, 2016). But Walsh (2006) opined that MCQs focus on recall rather than comprehension, application and analysis of course-related information. The Basic Education Certificate Examination (BECE) is a prerequisite for students in the ninth year of their basic education class and the third year of junior secondary school. The BECE is an external examination conducted by the Ministry of Education of each state, normally conducted in June/July yearly, the exact date may vary from state to state. The curriculum for these also lasts three years and leads to a trade/craftsmanship certificate. Just like other examinations in Nigeria with a grading system, BECE has its grading system. To pass any subject one must have a grade of at least pass and above. However, the study will focus only on multiple choice test items of Basic science and Technology in BECE. Basic Education Certificate Examinations (BECE) occupy a

prominent position in the educational life of Nigerian child in vocational/technical colleges. It is the first public certification examination taken by students in Nigeria (Osuafor, 2013). Basic Education Certificate Examination (BECE) is taken by students who have completed their first three years of secondary education. Junior secondary education is the education that a child receives immediately after primary education. The objectives of this level of education as spelt out in the National Policy on Education (NPE, 2013), are to :(a). Develop patriotic young people equipped to contribute to social development and the performance of their civic responsibility (b). Provide children with diverse basic knowledge and skills for entrepreneurship and educational advancement(c). Inspire national consciousness and harmonious co-existence irrespective of differences in endowment, religion, color, ethnic, and socio-economic background (d). Inculcate values and raise morally upright individuals capable of independent thinking, and who appreciate the dignity of labor.

In pursuit of these objectives, the Junior Secondary Education curriculum was designed to provide children with training through the following subjects: English language, one Nigerian Language (one of Hausa, Igbo, Yoruba, Edo, Ibibio, and Efik), Mathematics, Religion and National Values, Basic Science and Technology, Pre-Vocational Studies, French, Cultural and Creative Arts, Business Studies, and Arabic. Among these 10 subjects, Basic Science and Technology (BST) is of interest to this study. Omi (2013) argued that BST is the only subject at BECE level that avails students the capacity to: explain events in nature; develop in an all-round manner covering cognitive, affective and psychomotor skills; possess the ability of reasoning and thinking logically; evolve global skills in which scientific know-how can utilize information gathering from nature to solve the problems of mankind, and stir instinct during experiments. These are in addition to the fact that science and technology are tools that catapults nations to economic development, self-sufficiency, and sustainability. Hence, the nation being mindful of the importance of science and technology and their contribution towards technological advancement, intentionally included BST as one of the major and compulsory subjects in the junior school system. In testing students during the BECE examination, which is a condition needed for a student to be certified to have completed junior secondary education, the National Examinations Council administers 60 multiple-choice questions (MCQs) covering four main components of BST namely Basic Science, Physical and Health Education, Basic Technology and Computer Studies.

The Basic Education Certificate Examination (BECE) was established in April 1999 by the then Head of State, General Abdulsalami Abubakar. Its core mandate includes the general control of the conduct entrance examination to unity schools, Conduct of BECE for National technical schools, and conduct of external Senior Secondary School Certificate Examinations in Nigeria without prejudice to the existing powers and functions of the West African Examination Council; conducting a Standard National Assessment of Educational Performance at junior and senior secondary school levels; conducting research leading to national improvement of testing and examination procedures at junior and senior secondary school levels (NECO 2000).

For the tests conducted by BECE to meet international standards, a lot of activities take place behind the scene. One of such activities is the determination of the psychometric properties of the tests used in a process referred to as the item analysis. Item analysis is the process in which the validity, reliability, discrimination, difficulty, and distractor indices of individual items of a test are examined as they affect the whole test. Item analysis was defined as a procedure which provides a test developer with the opportunity to examine both test item and the answers supplied by the testees to find out whether they are of adequate quality and if the content coverage is sufficient for the test they are developed for. Furthermore, this analysis of test items can be computed or derived at both qualitatively and quantitatively in order to evaluate test items to determine their usefulness and functionality. Hassan (2017) stated that item analysis is mainly carried out on already administered test or pilot test, with the hope that the test will be corrected for future use. Item analysis is done on items/questions of a test after it has been administered. Sabri (2013) advanced that the upside to the practice of item analysis is that it allows for the observation of the item characteristics and the improvement of the quality of the test. This means that item analysis helps the test developer to examine each specific item to appraise their quality concerning difficulty, discrimination, and distractor indices.

Item difficulty for dichotomous items under CTT assumption is referred to as P-value, the population of test takers getting the item correct while for the polychromous items it is simply the average score. The difficulty index shows the percentage of students (population of students) who answered an item correctly that has been consistently used in measurement is somewhat of a reverse definition. That is the larger the index, the easier the item, the smaller the index, the more difficult the item (Chandrika,

Kishan, Sajita, Permi, 2016). For example, if an item has a difficulty index (D) of 0.90, this means a very easy test item while a D of 0.020 is a very difficult item. The difficulty index can range from 0 to 1. Effective MCQs possess appropriate difficulty level and the ability to discriminate between performers and non-performers (Terrant, Knierim, and Hayes 2006). An item analysis enables identifying the quality of MCQs based on the difficulty index (D), discriminating index (DI) and distractor efficiency (DE).

Clues and errors influence the ease or difficulty of an item. Average item difficulty lies between 30 and 70 %. High-quality MCQs require well-written options, with effective distractors. Items on teacher-generated-tests therefore need to be studied (Owen, 1987). Poorly and ineffectively answered items can be removed from further use thereby making the test more effective.

Item discrimination is a measure of whether an item discriminated between students who know the material well and students who don't. Item discrimination reveals the degree to which a test differentiates between the higher ability students and the lower-ability students. The higher-ability students are those with high scores and answered an item correctly while the lower-ability students are those with lower scores and answered an item correctly. For an item to be a good discriminator, it must surely discriminate between the bright and dull student's scores. That is, the bright students will score an item correctly more than the dull students.

The distractor index is a measure of how well the incorrect options in an item prevent the 'not-so-bright' test-takers from picking the right option (also called the key) (Kinancee, Nkem, Orluwene 2017). A distractor is an incorrect or wrong or alternative while the key is the correct option. Chauhan, Chauhan, Chauhan and Vaza (2015) demonstrated that good distractors appeal to a higher proportion of low-achieving test-takers than they do to the bright ones, in that way, they result in negative statistics. The distractor index ranges from -1.00 to +1.00. A negative distractor value indicates that more of the students in the lower ability group chose it than the upper ability group. This indicates that the distractor is functional/effective. A positive distractor value indicates that more of the students in the upper-ability group chose it more than those in the lower-ability group. This indicates that the distractor is nonfunctional/ineffective

Nworgu, (2015) and Harbour-Peters (1999) demonstrated the following approach for calculating the difficulty index/item facility (p), Discrimination index (d) and Distractor Indices (D.I).

$$\text{Difficulty index } p = \frac{U+L}{2N} \frac{U+L}{2N}$$
 The range of an ideal item is 0.5. An acceptable p-value is 0.30 to 0.70.

Discrimination Index (d) which answers the question: Does the item distinguish between the bright

and the dull students? It is given by
$$d = \frac{U-L}{N} d = \frac{U-L}{N}$$
 . An ideal item should have a d-value of +1.00 but could range from +0.30 to +1.00.

$$\text{Distractor Index (DI)} = \frac{L-U}{N} = \frac{L-U}{N}$$
 . DI depends on the number of options. 0.25 is ideal for 5 options, 0.33 for 4 options and 0.5 for 3 options. DI could range from -1 to +1

Where,

U = the number of examinees in the upper one-third of the group who passed the item.

L = the number of examinees in the lower one-third of the group who passed the item.

N = the total number of examinees in either the upper or lower one-third of the group who took the test.

Bichi; Embong; Talib and Salleh (2019) noted that there are two widely used approaches to item analysis. These are Classical Test Theory (CTT) and Item Response Theory (IRT). CTT, a measurement framework that assumes Total Score = True Score + Error Score for a testee, uses two main statistics: the item difficulty index (the proportion of examinees that responded correctly to the item) and the discrimination index (the point-performance on individual items and total test scores).

IRT, a measurement framework that models the ability of the testee to the probability of his responding correctly to an item. IRT however, refers to two key things, both item statistics and examinee's capability with the postulation about the existence of a relationship between his score on a single item and eventual overall performance in the test. In BECE, both CTT and IRT are used to analyze the items of the various tests they conduct. To do this, a pilot study of the items that are intended for use in future examinations is done through a process known as trial testing. This enables the examination body to take a critical look at individual items of the test with the view of making sure that only those of them that meet expected standards are used.

However, there is a gap created by the lack of information from an independent observation standpoint, concerning the quality of the items used for testing candidates in Nigeria as the standard Exam bodies always keep their item quality as a classified information.

Statement of the Problem

It is tantamount to overemphasizing the obvious, that anybody that calls him or herself a teacher need to be conversant with how to evaluate the psychometric qualities of instruments so as to always utilize items with desirable qualities. There exist two theories of measurement for calculating various item qualities. They are Classical Test Theory (CTT) and Item Response Theory (IRT). IRT is a modern theory with its own merits but has this demerit of complex theoretical assumptions which makes it almost unrealistic for use in analysis for educationally less developed areas. But CTT has simple assumptions that can be utilized by all and sundry for needed frequent assessment of item qualities by all teachers. Hence teachers need to adopt CTT to frequently evaluate the qualities of tests from standard exam bodies. This way they will get used to the intricacies and qualities of standard items which would be unconsciously extended to all their teacher-made tests for enhanced assessments.

Furthermore, some researchers hold the opinion that the quality of items is the cause of the unstable nature of the performance of students in key subjects like BST in BECE while others hold the opinion that it is due to students' inabilities. Some researchers have asserted that there is a probability of the existence of items that could be said to possess elements of technical inadequacies in the tests developed and administered by examination bodies like BECE (Oluwatayo, 2012). Likewise, there are some opinion that sometimes students' failure in key subjects BST in BECE is because of the faults inherent in the psychometric properties of the test, not just due to their inabilities.

It is therefore not out of proportion for an independent item analysis to be carried out with a view of ascertaining whether or not the items used in public examinations by BECE are of the expected quality. Hence, this is also what informs the need for this study.

Purpose of the Study

The purpose of the study was to conduct a Psychometric analysis of BST test administered in the 2021 BECE. Specifically, the study sought to:

1. estimate the reliability of the Basic Science and Technology test items used for the 2021 Basic Education Certificate Examination
2. determine the difficulty indices of the Basic Science and Technology test items used for the 2021 Basic Education Certificate Examination.
3. determine the discrimination indices of the Basic Science and Technology test items used for the 2021 Basic Education Certificate Examination.
4. determine the distractor indices of the Basic Science and Technology test items used for the 2021 Basic Education Certificate Examination.

Research Questions

The following research questions guided the study.

1. What is the reliability of the test items of Basic Science and Technology BECE 2021.
2. What are the difficulty indices of objective test items of Basic Science and Technology BECE 2021
3. What are the discrimination power of the objective test items of Basic Science and Technology BECE 2021
4. What are the distractor indices of the items in the Basic Science and Technology BST 2021 Objective test items?

Methodology

The study adopted an instrumentation design. The area of study is Nsukka education zone of Enugu state. The zone is made of three Local Government Areas. They are Nsukka, Igbo-Etiti and Uzo-Uwani Local Government Areas, all in Enugu state, The population of the study was all JSS III students of the nine (9) public Science, Technical and Vocational Secondary Schools in Nsukka Education zone. Statistics obtained from the Science, Technical and Vocational Schools Management Board (STVSMB) Nsukka zone, revealed that there were nine hundred and one (901) JSS III students in Nsukka zone in 2021/2022 session and this makes the total population of the study. The sample for the study was 150 JSS III students. Simple random sampling technique was used to select five (5) secondary schools out of nine (9) public schools in the area. The simple random sampling technique

was also used to select 30 students each in the 5 schools bringing the total sampled students to 150. The instrument used for the study was a 60-item multiple choice test consisting of the science and technology components of the Basic Science and Technology test administered by NECO in the 2021 BECE. The instrument was not subjected to validation because NECO being a standard examination body subjected it to validation before administration. The reliability was not established before the study since BECE was subjected to reliability analysis before administration and secondly this is one major thrust of the study. The direct delivery method was employed to ensure high percentage of the 60-items questions and answer scripts return. The questions were given to the examinees and collected immediately by the researcher and assistants after their time allocation has elapsed. Data was analyzed using quantitative procedures. Each examinee score on the items was ascertained and documented. Based on Classical Test Theory (CTT), the research questions were answered using descriptive statistics such as percentages, correlation, proportion, frequency etc.

Results

The results of the study are presented in line with the research questions

Research Question 1. What is the reliability of the test items of Basic Science and Technology BECE 2021?

Table 1: Testees scores separated into odd and even scores-with their ranks and rank differences

Students (total) (n)	X(odd) (total)	y(even) (total)	Total scores (T)	Ranks R_x	Ranks R_y	d	d^2
150							$\sum d^2=135376.96$

Table 1 shows the scores of the students both odd (x) items, even (y) items, ranks of odd (R_x) and even (R_y) items of the test obtained from 150 students. The difference between the two ranks of odd and even items (d) for each testee and square of the rank difference d^2 (See Appendix 1 – Sampled sheet of testees scores separated into odd and even scores with d and d^2). The reliability coefficient of the half test is **0.76** while the reliability of the whole test is **0.86**.

Research Question 2: What are the difficulty indices of objective test items of Basic Science and Technology BECE 2021

Table 2: Summary of the difficulty indices of BECE Basic Science and Technology objective test items of 2021

Range of difficulty	Frequency of percentage of items	Remark
0-0.20	13(21.7%)	Very Difficult
0.21-0.30	18(30%)	Difficult
0.31-0.70	27(45.0%)	Moderately difficult
0.71-1.0	2(3.3%)	Very Easy

In Table 2 that is BECE 2021 Basic science and Technology objective test had 18 items that were difficult which represented 30%, 27 items were moderately difficult; this represented 45% of the items, 13 items were very difficult; this represented 21.7% of the items while 2 items were very easy which represented 3.3% of the items.

Research Question 3: What is the discrimination power of the objective test items of Basic Science and Technology BECE 2021

Table 3: Summary of discrimination indices of BECE Basic Science and Technology objective test items of 2021

Range of discrimination	Frequency and percentage of items	Remark
0.30- 1.0	1(1.7%)	Excellent
0.20-0.29	11(18.3%)	Marginal (fair)
0- 0.19	38(63.3%)	Poor
-1- 0.1Negative value	10(16.7%)	Bad

Table 3 BECE 2021 had 10(16.7%) item as bad (lower ability students tend to get the items correctly), 38(63.3%) of the items were poor, (few upper ability testees get them correct) 11(18.3%) of the items were marginal while 1(1.7%) of the items was excellent item that needed neither improvement nor revision as they discriminate perfectly well.

Research Question 4: What are the distractor indices of the items in the Basic Science and Technology BST 2021 Objective test items?

Table 4: Summary of distractor indices of BECE Basic Science and Technology objective test items of 2021

Values	Frequency and percentage of distractors	Distractor
Negative values (-1 to -0.1)	111(61.7%)	Functional distractors
Positive values(0.3 to 1)	43(23.9%)	Non-functional distractors
Zero values(0)	26(14.4%)	Functional distractors

Table 4. BECE 2021 had 60 items (MCQs), a, b,c and d with a total of 240 options. 60 options are correct and the remaining 180 options are distractors. Out of 180 options,111(61.7%) options had negative values which were functional distractors, (Since Distractor indices ranges between -1 and +1 and maximum limit for functional distractor for 4 option test is 0.33). 43(23.9%) of the options(+values) were non-functional and 26(14.4%) of the options (0 values) were also functional distractors.

Discussion

From table 1, the split half method was used to determine the reliability of the test items based on Spearman-Brown prophecy formula. A reliability coefficient of 0 means no reliability and 1.0 means perfect reliability. Generally, if the reliability of a standardized test is above 0.80, it is said to have a very good reliability and if it is below 0.50, it would not be considered a very reliable test (Gronlund, 1976). From table 1, reliability coefficient of the half test was 0.76 while that of the whole test was 0.86, showing that the test items have a very good reliability coefficient.

The results from Table 3, was based on the categorizations of Ebel and Frisbie as documented in Orluwene (2015), that items with coefficients greater than 0.30 are very good, between 0.2 and 0.29 are fairly good; between 0.20 and 0.29 are marginal and needs some revision or eliminated; below 0.19 are poor and need major revision; items with a negative discrimination index are bad and should be eliminated. Hence; in BECE 2021, 10 items were bad and should be eliminated or replaced. It can be seen from table 3, that in terms of discrimination indices, that 38 items were poor and they need to be reviewed and tried again and 11 items were marginal items, could be considered fairly good items, and may be retained. Only 1 item was excellent and need to be retained. It is only 12 items that may have passed the discrimination indices criteria and represent 20% of the total number of items that constituted the test

Harbour-Peters (1999) and Nworgu (2015) posits that distractor indices range from -1 where high ability students choose the option while no low ability student choose the option through 0 to +1 where the converse is the case. From table 4, out of 180 distractors, 111 options which represented 61.7% of the total distractors have negative discrimination value and therefore are functional distractors. On the other hand 43 options which represented 23.9% of the distractors have positive value that range from 0.3 to +1 and are functional distractors. 26 options which represented 14.4% of the distractors (0.3-1) value are ineffective distractors and therefore should be removed. In line with Millman & Greene, 1993, Distractors that are never or infrequently selected should be revised or eliminated.

Conclusions

Based on the findings of the study, it was concluded that BECE 2021 basic science and technology objective items have inadequate difficulty indices (only 27 (45%) out of 60 items within the acceptance range), poor discrimination indices (38 items ie 80% of the items are poor with only 12 items ie 20% that are with fairly good discrimination. But the instrument in question has adequate distractor indices (154 options ie 85.6% are good distractors) and highly reliable (0.86). This reliability coefficient is excellent. The reasons for some unstable nature of the instrument could be due to some other factors such as students' attitude, low morale on the part of teachers and the poor state of school infrastructure. The results of this study will help to change the way MCQs are developed and used in the educational assessment. It will provide the basis for modifying the assessment strategy in the curriculum

Recommendations

Recommendation for this study is based on the results of the findings which are as follows:

1. Every practicing teacher should be conversant with evaluation of psychometric qualities of his/her instrument administered during examinations so as to ensure that their instruments are such that will enthrone objectivity in measurement during teaching for sustainable development.
2. Both teacher made tests and exam body tests should always be comprehensively subjected to item qualities evaluation so as to jettison bad quality items and distractors.
3. Just as teachers are being monitored on writing of lesson plans and other activities, stake holders in education should ensure that psychometric qualities of teacher made items should be monitored and comparable with that of standard exam bodies
4. School teachers at all levels of the secondary school should imbibe the strategy of incorporating national examination bodies' like BECE past questions into internal evaluation processes to familiarize their students with the standards they will be facing in their final examination.
5. School proprietors and the government should endeavor to sponsor teachers to attend item generation workshops to be up-to-date with how to generate test items that meet the criteria for final examinations

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APPENDIX
(Students score separated into each testees even and odd score alongside ranks and rank difference d for calculation of split half reliability using Spearman correlation)

Students	x(odd)	y(even)	Total scores	Ranks R_x	Ranks R_y	d	d^2
1	22	20	42	1	3	-2	4
2	21	21	42	2	1.5	0.5	0.25
3	20	19	39	3	4.5	-1.5	2.25
4	18	21	39	8	1.5	6.5	42.25
5	18	18	36	8	7.5	0.5	0.25
6	19	16	35	4.5	27	-22.5	506.25
7	17	18	35	16	7.5	8.5	72.25
8	18	17	35	8	13.5	-5.5	30.25
9	17	17	34	16	13.5	2.5	6.25
10	16	18	34	29	7.5	21.5	462.25
11	16	18	34	29	7.5	21.5	462.25
12	19	15	34	4.5	49	-44.5	1980.25
13	17	17	34	16	13.5	2.5	6.25
14	16	17	33	29	13.5	15.5	240.25
15	17	16	33	16	27	-11	121
16	17	16	33	16	27	-11	121
17	17	16	33	16	27	-11	121
18	17	16	33	16	27	-11	121
19	16	17	33	29	13.5	15.5	240.25
20	18	15	33	8	49	-41	1681
21	18	15	33	8	49	-41	1681
22	14	19	33	68.9	4.5	64.4	4147.36
23	16	16	32	29	27	2	4
24	16	16	32	29	27	2	4
25	16	16	32	29	27	2	4
26	15	17	32	46.5	13.5	33	1089
27	15	17	32	46.5	13.5	33	1089
28	15	17	32	46.5	13.5	33	1089
29	17	15	32	16	49	-33	1089
....							...
150							135376.96

The reliability of the test was calculated using Spearman-Brown prophecy formula but we need to first solve for the reliability coefficient of the half test which is given below

$$r_{\frac{1}{2}, \frac{1}{2}} = 1 - \frac{6\sum d^2}{n^3 - n} = 1 - \frac{6 \times 135376.96}{150^3 - 150} = 0.761 - \frac{6\sum d^2}{n^3 - n} = 1 - \frac{6 \times 135376.96}{150^3 - 150} = 0.76$$

Where $r_{\frac{1}{2}, \frac{1}{2}}$ = the reliability coefficient of the half test (Spearman Rank Correlation Coefficient), $\sum d^2$ = the sum of the square of the difference between ranks of odd (x) and even (y) number scores of the students and 'n' is the total number of students that took the test.

The reliability coefficient of the whole test (r_{11}) can then be calculated using the formula below (Spearman-Brown prophecy).

$$r_{11} = \frac{2(r_{\frac{1}{2}, \frac{1}{2}})}{1 + r_{\frac{1}{2}, \frac{1}{2}}} = \frac{2(0.76)}{1 + 0.76} = 0.86$$

WORK-RELATED STRESS: IMPLICATIONS FOR LECTURERS ON CAREER DEVELOPMENT PROGRAMMES IN NIGERIAN PUBLIC UNIVERSITIES

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Abstract

The paper examined work-related stress among lecturers enrolled in career development programmes in Nigerian universities. A descriptive survey research design was adopted in the study. One hundred and sixty-seven (167) university lecturers from University of Nigeria, Nsukka (UNN) and **AlikoDangote University of Science and Technology, Wudil**, (ADUSTW) selected through census sampling procedure constituted the study sample. A questionnaire titled “Lecturers’ Work-related Stress Questionnaire” was used to gather data. Mean was used to analyze the data gathered. The findings revealed that lecturers enrolled in career development programmes in Nigerian universities experience work-related stress in the course of carrying out lecturers’ statutory duties of teaching, research work and community services. The findings further revealed that the perceived strategies for addressing work-related stress experienced by the university lecturers include providing financial assistance to lecturers, modification of lecturers’ job schedule, and conducting routine screening for stress symptoms. The study noted some implications of the findings which require the university management to ensure that the work stressors revealed in the findings are minimized or totally eliminated.

Keywords: Stress, university lecturers, work-related stress, career development, lecturers’ career development programmes, stress management

Introduction

Stress has been recognized as a major occupational hazard worldwide. The Health and Safety Executive (HSE) report (2015) stated that work stress is more common in public service institutions. Another survey conducted by WellNewMe (2020) stated that 64% of Nigerian employees are at risk of employee burnout, a condition caused by excessive and prolonged stress. Work stress can lead to physical illness, as well as psychological distress and mental illness. The recent increase in work stress has been linked with the global and national recession, job insecurity and work intensity, all leading to greater workloads and more interpersonal conflicts, and can have an impact on lecturer’s mental health through disrupted career development programmes (Bhui, Dinos, Magdalena, Jongh, & Stansfeld, 2016). Essentially, stress in the workplace may be the result of exposure to a range of work stressors which emerge when people attempt to manage their responsibilities, tasks or other forms of pressure related to their jobs and encounter difficulty, strain, anxiety or worry in this attempt.

Work stressors can take different forms depending on the characteristics of the workplace, and may be unique to an organisation or an industry. The theoretical models of stress consider it to be either related to adverse life events and stressful environments or the individual’s physiological and psychological responses to stressors, or a ‘transactional’ interaction between the individual and environment (Kusi, Codjoe & Bampo, 2018). Although theoretical models conceptualized stress as a result of an imbalance between perceptions of external demands and internal resources, the consensus between theoretical academic models and lay representations of definitions of stress is far from clear. Definitions of stress in the research literature, as well as those reported by lay people vary considerably. Kinman and Jones (2005) found that there was a lack of consensus on conceptualizations of stress, and a several of different personal, social, environmental and work-related factors were used to define and interpret the meaning of stress. Brooker and Eakin (2001)

suggest that concepts such as power or control in relation to gender and class are related to stress, yet models of stress do not explicitly take them into account. Page, LaMontagne, Louie, Ostry, Shaw and Shoveller (2013) argued that stress is a feminine trait associated with weakness, thus few people admit to it. There are categories of stress management interventions that target individuals or organisations as segmented preventive interventions at primary, secondary or tertiary levels (Cahil, 1996, Cooper, Dewe and O'Driscoll, 2001 & Marine, Ruotsalainen, Serra and Verbeek, 2006).

Primary interventions aim to prevent the causal factors of stress, secondary interventions aim to reduce the severity or duration of symptoms, and tertiary or reactive interventions aim to provide rehabilitation and maximize functioning among those with chronic health conditions. Individual interventions may include stress awareness training and cognitive-behavioural therapy (CBT) for psychological and emotional stress. Organisational interventions affect groups of people at work and may include workplace adjustments or conflict management approaches in a specific organisation. Some interventions target both the individual and the organisation, for example, policies to secure a better work-life balance and peer-support groups. Omoniyi (2013) noted that interventions that target individuals show larger effects compared with organisational interventions on individual outcomes such as levels of depression and anxiety. However, the available literature did not explore the work-related stress of university lecturers' career development programmes, which has implications for academic productivity.

Contemporary health psychologists have identified three main consequences of stress: First, stress has a direct physiological effect leading to an increase in blood pressure, an increase in hormonal activity, a decrease in immune system functioning and an increase in psychological disorders. Second, stress leads people to engage in harmful behaviours such as decrease in sleep, increased smoking or drug use, and poor eating habit. Finally, stress produces indirect consequences that result in a decline in health; as in the case of decreased compliance with medical services (Gevirtz, 2000; (Gevirtz, 2000; Ana & Darja, 2011; Gillespie, Walsh, Winefield, Dua, & Stough, 2001; Azila-Gbettor, Atatsi, Dodor, Adade, Tsorhe & Neequaye. 2017; Sonna & Nkechi, 2021).

Ajala (2013) described stress as a complex, dynamic process of interaction between a person and his or her life. Ajala explained further that it is the way individuals react physically, mentally and emotionally to the various conditions, changes and demands of life. Ajala further noted that stress is a concept regarded as a specific irritating events, life cycle transitions and conflict events with either your belief system or your surroundings throughout a period. Accordingly, Ajala viewed stress to be a relative term in the sense that events that are stressful to one person may be joyful or routine to another.

According to WHO (2012), work-related stress, also known as job or occupational stress, is the response people may have when presented with work demands and pressures that are not matched to their knowledge and abilities and which challenge their ability to cope with their daily functions at work. WHO further asserts that work-related stress can be caused by factors which include:

1. Poor work organisation (i.e. the way we design jobs and the way we manage them);
2. Poor work design e.g. lack of adequate control over work processes;
3. Poor management;
4. Unsatisfactory working conditions; and
5. Lack of support from colleagues and supervisors.

Given the foregoing, Chandraiah (2010) defined occupational stress as the experience or negative emotional state such as frustration, worry, anxiety and depression attributed to work-related factors. Chandraiah, therefore, after reviewing a substantial body of literature concluded that teaching can be a very stressful occupation and teacher stress appears to have increased in recent decades. Chandraiah further asserts that some of the work stressors identified among samples of teachers include work overload, conflicting job roles, lack of influence over the work environment, inadequate work environment, demands made by external agencies, poor relations with colleagues, poor relation with students, lack of support from the principal, school climate and culture. Indeed, role conflict, role ambiguity, role overload and work underload is one of the major sources of occupational stressors.

Similarly, Bedu-Addo and Akinade (2013), viewed work-related stress as a stress that comes about as a result of one's work schedule, work status, work environment, or relationship with boss or colleagues. Bedu-Addo and Akinade further supported that work-related stress arises from many sources which include unrealistic task demands, role ambiguities and conflicts, interpersonal conflicts and career development processes. Other sources include poor work design, lack of variety in work schedule, inability to influence decision-making, conflicts with colleagues and poor career prospects. Bedu-Addo and Akinade equally noted that some of the behavioural characteristics typically associated with people who are experiencing work-related stress include: always moving, walking and

eating rapidly; feeling impatient with the pace of things; hurrying others in workplace; being annoyed by waiting; trying to do several things at once; feeling guilty when relaxing and; being uncomfortable with leisure but worrying about not having time to enjoy life. Several studies that reported work-related stress in organisations are limited to non-educational settings or are mostly concerned with foreign samples and not related to university lecturers' career development programmes.

The emphasis over recent years in research on lecturers' career development programmes has shifted more in the direction of forms of professional development that are multi-faceted and job-embedded (Harris & Jones, 2019; Kusi, Codjoe & Bampo, 2018; Sokpuwu and Ibara, 2021). Little (2012) viewed lecturers' career development programmes as a continuous process that begins during pre-service lecturer training and continues throughout an academic career. It is an ongoing process whereby lecturers acquire new subject knowledge and teaching method skills (Hallinger & Liu, 2016; Leka, Griffiths & Cox, 2003). Lecturer's career development programs can be university-based and externally based. The university-based programmes typically involve site-specific workshops and observations of lecturing by colleagues as well as the career development programmes enrolled by lecturers within their respective universities while still carrying out their primary assignments of teaching, research and community service. The externally based programmes on the other hand are typically provided outside the university and include participation in external workshops, training courses as well as the study leave (with or without pay) granted to lecturers to pursue career development programmes outside their respective universities.

Meanwhile, the major roles of university lecturers in Nigeria include teaching, research and community development service. Apart from these statutory duties of the university lecturers, there are several other job demands which complicate and complement their teaching career. It is imperative to note that the promotion appraisals in the universities require yearly journal publications, conferences participations, and embarking on career development programmes such as Masters and Doctorate degrees. Lecturers workload of teaching, research and community development service and promotion requirements, journal publications, conference participation as well as the need to enrol in further degrees can be considered stress triggers. Hence, this constituted the motivation for this study which sought to investigate work-related stress among University Lecturers Enrolled in Career Development Programmes (ULECDP).

Research Questions

The study was designed to answer the following research questions:

1. What is the work-related stress in teaching experienced by university lecturers that enrolled in career development programmes (ULECDP)?
2. What is the work-related stress in research activities experienced by ULECDP?
3. What is the work-related stress in community development service experienced by ULECDP?
4. What is the work-related stress in the career development programme experienced by ULECDP?
5. What are the strategies for addressing work-related stress experienced by ULECDP?

Methodology

The descriptive survey design was employed in this study. The population for the study was all lecturers on career development programmes in two Nigerian public universities i.e. University of Nigeria, Nsukka (UNN) and Aliko Dangote University of Science and Technology, Wudil (ADUSTW). All the lecturers in the population are undertaking their programmes either within their universities or in the nearby universities while still carrying out their primary assignments in their respective universities. The accessible population was 167 lecturers from the two universities (UNN = 92 and ADUSTW = 75). A census sampling procedure was used to select 167 lecturers. The census sampling was employed because the population of the lecturers was relatively manageable.

A researcher-constructed questionnaire titled "Lecturers' Work-related Stress Questionnaire" was used to gather data for the study. Items in the questionnaire were collected from the review of related literature. The questionnaire has two sections, section A, and B. Section A elicited information on data of the respondent and Section B comprised of five clusters: Cluster A contained the 14 items on work-related stress in teaching, Cluster B contained the 12 items on the work-related stress in research, Cluster C has the 11 items on the work-related stress in community development service, Cluster D has the 16 items on the work-related stress in career development programmes, and Cluster E has the 9 items on the strategies for addressing work-related stress. All items of the questionnaire were scored on response options of four-point rating scale: Strongly Agree = 4, Agree = 3, Disagree =

2 and Strongly Disagree= 1. The data gathered were analyzed using mean. The benchmark for acceptance of mean scores of any questionnaire item is 2.50 and above.

Presentation of Results

Research question 1: What is the work-related stress in teaching experienced by ULECDP?

Table 1: Mean ratings of the work-related stress in teaching experienced by ULECDP.

S/N	Work-related stress in teaching	UNN	ADUSTW
		\bar{X}	\bar{X}
1	Searching for teaching space	3.43	2.87
2	Working with an inflexible lecture schedule	2.45	2.56
3	Delivering lectures in an overcrowded classroom	3.21	3.18
4	Sourcing for exam materials	2.54	2.72
5	Managing excessive workload	2.87	2.54
6	Going to a lecture venue changed unexpectedly	2.54	2.32
7	Lecturing large class without public addressing system	3.00	2.81
8	Marking students' script	2.62	3.51
9	Recording of students' assessment	2.30	2.57
10	Writing examination questions	1.78	2.13
11	The computing of students' assessment	2.13	2.52
12	Writing marking scheme	2.35	2.21
13	Invigilating examinations	2.35	2.47
14	Preparing lecture notes	1.89	2.10

\bar{X} = Mean.

Table 1 shows that the work-related stress in teaching experienced by UNN lecturers that enrolled in career development programmes includes searching teaching space, delivering lectures in an overcrowded classroom, sourcing for exam materials, managing excessive workload, going to a lecture venue changed unexpectedly and lecturing large class without public addressing system. While the work-related stress in teaching experienced by ADUSTW lecturers that enrolled in career development programmes includes searching for teaching space, working with unflexible lecture schedules, delivering lectures in an overcrowded classroom, sourcing for exam materials, managing excessive workload, lecturing large classes without a public addressing system, marking students' scripts, recording students assessment and computing students' assessment.

Research question 2: What is the work-related stress in research activities experienced by ULECDP?

Table 2: Mean ratings of the work-related stress in research activities experienced by ULECDP.

S/N	Work-related stress in research activities	UNN	ADUSTW
		\bar{X}	\bar{X}
1	Sourcing for researchable topics	2.52	2.67
2	Gathering literature	2.94	3.03
3	Collection of research data	2.61	2.85
4	Publishing papers in impact factor journals	3.37	3.53
5	Presenting research at conference	2.19	2.47
6	Writing a research report	2.33	2.50
7	Sourcing for research funding	2.64	2.53
8	Preparing research grant proposals	3.15	2.79
9	Paying for research publications	2.58	2.50
10	Travelling for fieldwork	2.77	2.50
11	Developing research instrument	2.50	2.92
12	Writing research papers	2.61	2.83

\bar{X} = Mean.

The data in Table 2 indicates that the work-related stress in research activities experienced by UNN lecturers that enrolled in career development programmes includes sourcing for researchable topics, gathering literatures, collecting of research data, publishing papers in impact factor journals, sourcing for research funding, preparing research grant proposals, paying for research publications, travelling for field work, developing research instrument and writing research papers. While the work-related stress in research activities experienced by ADUSTW lecturers that enrolled in career development

programmes includes sourcing for researchable topics, gathering literatures, collection of research data, publishing in impact factor journals, writing of a research report, sourcing for research funding, preparing research grant proposals, paying for research publications, travelling for field work, developing research instrument and writing research papers.

Research question 3: What is the work-related stress in community development service experienced by ULECDP?

Table 3: Mean ratings of the work-related stress in community development service experienced by ULECDP.

S/N	Work-related stress in community development service	UNN ADUSTW	
		\bar{X}	\bar{X}
1	Sharing academic resources with colleagues	2.11	2.25
2	Organizing cultural day for students	2.44	2.48
3	Serving as a member of developmental committees	2.13	2.51
4	Creating awareness for environmental sanitation	1.75	2.53
5	Educating people on how to register for voter's card	1.82	2.42
6	Helping students to register for scholarship application	2.33	2.44
7	Vetting colleague's research writings	2.53	2.68
8	Volunteering to clean up the community environment	2.11	2.28
9	Volunteering at a nonprofit organisation	2.24	2.31
10	Volunteering at a community event	2.28	2.43
11	Writing reference letters for students	2.22	1.83

\bar{X} = Mean.

Data in Table 3 revealed that the work-related stress in community development service experienced by UNN lecturers that enrolled in career development programmes include vetting colleague's research writings. While the work-related stress in community development service experienced by ADUSTW lecturers that enrolled in career development programmes include, serving as member of the developmental committee, creating awareness for environmental sanitation and vetting colleagues' research writings.

Research question 4: What is the work-related stress in career development programme experienced by ULECDP?

Table 4: Mean ratings of the work-related stress in career development programmes experienced by ULECDP.

S/N	Work-related stress in career development programmes	UNN ADUSTW	
		\bar{X}	\bar{X}
1	Incessant strike	2.52	2.83
2	Inflation of program fees	2.60	2.51
3	Attending lectures for course works	2.75	3.00
4	Problematic project supervisors	2.51	2.82
5	Poor hostel accommodation	2.13	2.34
6	Poor electricity supply	2.77	2.51
7	Inability to meet TETFUND funding requirements	2.63	2.73
8	Writing research project	2.51	3.43
9	Attending conferences	2.54	2.72
10	Paper publications to meet promotion requirements	3.63	2.60
11	Payment for printing services	2.52	2.53
12	Travelling for fieldwork	2.57	2.81
13	Registration of courses	1.73	2.14
14	Departmental project proposal	2.67	2.93
15	Faculty seminars	2.45	2.52
16	School clearance procedure	2.51	2.80

\bar{X} = Mean.

The data in Table 4 indicated that incessant strikes, inflation of program fees, attending lectures for courses, problematic project supervisors, poor electricity supply, inability to meet TETFUND funding requirements, writing research projects, attending conferences, paper publications to meet promotion requirements, payment for printing services, travelling for field work, departmental project proposal

and school clearance procedures are the work-related stress in career development programmes experienced by UNN lecturers that enrolled in career development programmes. Whereas, incessant strikes, inflation of program fees, attending lectures for courses, problematic project supervisors, poor electricity supply, inability to meet TETFUND requirements, writing research projects, attending conferences, paper publications for promotion, payment for printing services, travelling for fieldwork, departmental project proposal, faculty seminars and school clearance procedures are the work-related stress in career development programmes experienced by ADUSTW lecturers that enrolled in career development programmes.

Research question 5: What are the strategies for addressing work-related stress experienced by ULECDP?

Table 5: Mean ratings of the strategies for addressing work-related stress experienced by ULECDP.

S/N	Strategies for addressing work-related stress experienced by university lecturers	UNN \bar{X}	ADUSTW \bar{X}
1	Providing financial assistance to lecturers	2.63	2.82
2	Modification of job schedule	2.56	2.61
3	Routine screening for stress symptoms	2.81	3.12
4	Creating clear promotion requirements	3.01	2.70
5	Enforcing compulsory vacation for lecturers	2.67	2.75
6	Reducing workloads of lecturers	2.52	2.56
7	Providing paid study leave for lecturers	2.60	2.55
8	Avoiding work stressors	2.71	2.60
9	Provision of guidance and counselling services	2.76	2.70

\bar{X} = Mean.

From Table 5, the mean scores showed that providing financial assistance to lecturers, modification of job schedule, routine screening for stress symptoms, creating clear promotion requirements, enforcing compulsory vacation for lecturers, reducing workloads of lecturers, providing paid leave for lecturers, avoiding work stressors and provision of guidance and counselling services are perceived as the strategies for addressing work-related stress experienced by the ULECDP.

Discussion of Findings

The discussion of the findings was done according to the five research questions that guided the study.

Work-Related Stress in Teaching Experienced by ULECDP

The study revealed that the work-related stress in teaching experienced by UNN lecturers that enrolled in career development programmes includes searching teaching space, delivering lectures in an overcrowded classroom, sourcing exam materials, managing excessive workload, going to lecture venues changed unexpectedly and lecturing large class without a public addressing system. While the work-related stress in teaching experienced by ADUSTW lecturers that enrolled in career development programmes includes searching for teaching space, working with inflexible lecture schedules, delivering lectures in an overcrowded classroom, sourcing exam materials, managing excessive workload, lecturing large classes without a public addressing system, marking students' scripts, recording students assessment and computing students' assessment. The findings of this study was partly supported by Ana and Darja (2011) findings that many teachers employed at universities in Croatia have to cope with excessive workload; and lecturers in middle positions (assistant professors and associate professors) are highly exposed to work stressors related to material and technical conditions of work and work organisation than assistants, who, in turn, found relationships with colleagues a greater stressor. Similarly, Gillespie, Walsh, Winefield, Dua, and Stough (2001) revealed that the major sources of stress were insufficient funding and resources; work overload; poor management practice; job insecurity; and insufficient recognition and reward. Also, partially consistent with this study, is the work of Azila-Gbetor, Atasi, Dodor, Adade, Tsorhe and Neequaye (2017) which found that teaching load and examination (marking of examination scripts, collation and grading of examination results, lecture preparation and delivery, increasing teaching load, setting and moderation of examination questions, invigilation of end of semester examination, among others) are the most important stressors in the life of teachers in the university environment. On the contrary, the

findings of Sonna and Nkechi (2021) revealed that work overload does not in any way affect the course knowledge of lecturers.

Work-Related Stress in Research Activities Experienced by ULECDP

The findings also revealed that the work-related stress in research activities experienced by UNN lecturers that enrolled in career development programmes includes sourcing for researchable topics, gathering literature, collecting of research data, publishing papers in impact factor journals, sourcing for research funding, preparing research grant proposals, paying for research publications, travelling for field work, developing research instrument and writing research papers. While the work-related stress in research activities experienced by ADUSTW lecturers that enrolled in career development programmes includes sourcing for researchable topics, gathering literature, collecting of research data, publishing in impact factor journals, writing a research report, sourcing for research funding, preparing research grant proposals, paying for research publications, travelling for field work, developing research instrument and writing research papers. Consistent with the findings of this study, is the work of Azila-Gbettor, Atatsi, Dodor, Adade, Tsorhe, and Neequaye (2017), that research-related activities (sourcing for research grant, preparation of manuscript for publication, writing of research report, sourcing for support to attend seminars and conferences, generation of research problem, supervision of students' project work, waiting for manuscript to be accepted for publication) as potential sources of stress. Accordingly, the findings by Omoniyi (2013) showed that sourcing research funds and grants are the major source of stress for university lecturers.

Work-Related Stress in Community Development Service Experienced by ULECDP

In respect to research question 3, the findings showed that the work-related stress in community development service experienced by UNN lecturers that enrolled in career development programmes included vetting colleague's research writings. While the work-related stress in community development service experienced by ADUSTW lecturers that enrolled in career development programmes include serving as members of the developmental committee, creating awareness for environmental sanitation and vetting colleagues' research writings. The findings of this study are supported by Oyewole, Adegoke and Atoyebi (2020) who revealed that work stress has significant impacts on the performance of lecturers in teaching, publication and community service.

Work-Related Stress in Career Development Programmes Experienced by ULECDP

The results equally indicated that incessant strikes, inflation of program fees, attending lectures for course works, problematic project supervisors, poor electricity supply, inability to meet TETFUND requirements, writing research projects, attending conferences, paper publications for promotion, payment for printing services, travelling for field work, departmental project proposal and school clearance procedures are the work-related stress in career development programmes experienced by UNN lecturers that enrolled in career development programmes. Whereas, incessant strikes, inflation of program fees, attending lectures for courses, problematic project supervisors, poor electricity supply, inability to meet TETFUND requirements, writing projects, attending conferences, paper publications for promotion, payment for printing services, travelling for fieldwork, departmental project proposal, faculty seminars and school clearance procedures are the work-related stress in career development programmes experienced by ADUSTW lecturers that enrolled in career development programmes. The findings of this study is in partial agreement with the findings of Leka, Griffiths and Cox (2003) that career development training, lack of job security, lack of promotion prospects, under-promotion or over-promotion, work of 'low social value', piece rate payments schemes, unclear or unfair performance evaluation systems, and being over-skilled or under-skilled for the job are work-related stressors.

Strategies for Addressing Work-Related Stress Experienced by ULECDP

For research question 5, the results showed that providing financial assistance to lecturers, modification of job schedule, routine screening for stress symptoms, creating clear promotion requirements, enforcing compulsory vacation for lecturers, reducing workloads of lecturers, providing paid leave for lecturers, avoiding work stressors and provision of guidance and counselling services are perceived as the strategies for addressing work-related stress experienced by the university lecturers that enrolled in career development programmes. In line with the findings of this study are the findings of Kusi, Codjoe and Bampo (2018) that the strategies to manage work-related stress experienced by female lecturers includes going on compulsory leave, delegating responsibilities to subordinates and going for counselling. In another study, Sokpuwu and Ibara (2021) revealed that

consuming alcohol, engaging in physical exercise and consulting coworkers or friends for help are strategies for managing stress in the workplace.

Implications for University Lecturers Enrolled in Career Development Programmes (ULECDP)

The study has revealed the sources of work-related stress among ULECDP. Given the findings of the study, the implications for ULECDP are summarized below:

1. University management should ensure that the work stressors identified by ULECDP are minimized or eliminated. Accordingly, the Human Resource Department/Unit of the universities should put in place stress-relieving packages for the ULECDP who might be facing work-related stress. Such packages should include the provision of clear guidelines for promotion, enforcing compulsory vacation for lecturers, reducing workloads of lecturers, providing paid leave for lecturers, and providing financial assistance to ULECDP.
2. University management, through its guidance and counselling unit, should provide training or education in handling work-related stress among the ULECDP. Such training is to concentrate on helping the lecturers to deliver lectures in an overcrowded classroom, write and mark students' examinations, compute and record students' assessment. Similarly, the training should orient the lecturers on how to select a research topic, conduct the research, prepare the research report, and source for research grants.
3. Universities should consider creating awareness for work-related stress among the ULECDP as the key strategy to stress management. This may help address work-related stress among the lecturers as many successful stress intervention programmes begin by building and creating awareness of stress and burnout in the workplace. The programmes on work-related stress management strategies should be regularly organized for the ULECDP. The programmes should include procedures for modification of job schedule, routine screening for stress symptoms, knowledge of promotion requirements, procedures for reducing workloads, knowledge of the various scholarships, procedures for avoiding work stressors and provision of guidance and counselling services.
4. Guidance and counselling unit of a university should ensure that the ULECDP are adequately prepared for the task ahead of them. This can be achieved when adequate information on the programmes enrolled were given before, during and after the enrollment. In addition, the university should emphasise the need for staff analysis and programme analysis of each lecturer intending to enrol in a career development programme. Staff analysis entails the provision of information about the staff in terms of his interest, ability, aptitude, values and resources, among others; while the programme analysis entails the provision of information about the programme which includes information on requirements for admission, requirements for completion, cost implications, and possible sources of scholarship. Helping the lecturers with such information can assist them to understand themselves and become more capable of making rational decisions, and become more capable of managing work-related stress when enrolled in their respective programmes.
5. The Federal Ministry of Education, through Tertiary Education Trust Fund (TETFUND), should provide the needed support to enable the ULECDP to complete their programmes successfully with minimal or no work-related stress. The support to be provided should cover the incentives and logistics required in the research component of the programme, conference attendance, and publications of articles in impact factor journals. TETFUND should continue to educate lecturers, especially the ULECDP, on procedures of sourcing for research funding and preparing research grant proposal at the TETFUND and other national and international agencies.
6. The Academic Staff Union of Universities (ASUU), in consultations with the management of various universities, should come out with viable policies to seek compensation packages for ULECDP who may encounter physical and psychological injury as a result of the work-related stress they undergo while undertaking their primary assignments. The Union can agitate for a reduction of workload for the ULECDP. ASUU should encourage its members to avail themselves to programmes and workshop on the development of situational and cognitive work-related stress coping strategies. These strategies include assertive techniques, tools for enlisting the support of others and skills for changing stressful situations.

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**EFFECT OF INTEGRATING COOPERATIVE LEARNING METHOD
AND MULTIMEDIA TECHNOLOGY ON SECONDARY SCHOOL
STUDENTS' ACHIEVEMENT AND RETENTION IN POETRY IN
BENUE STATE**

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Abstract

The 21st century better known as the technological and information age is witnessing a paradigm shift in pedagogical practices. This paper explored the effect of integrating cooperative learning method and multimedia technology on senior secondary school two students' achievement and retention in poetry in Zone C Education Zone of Benue State. Quasi-experimental research design was adopted for the study. It used pretest, posttest non-equivalent control group design. Four research questions and four null hypotheses guided the study. Purposive sampling technique was used to arrive at the target population during the 2021/2022 academic session. Literature-in-English (LAT) developed by the researchers was used for data collection. Three experts in the Department of Arts and Social Education and Measurement and Evaluation, Benue State University validated the instrument. The reliability of the instrument was determined using Pearson Correlation which yielded a reliability coefficient of 0.93. The data were analyzed using mean and standard deviation to answer the research questions while Analysis of Covariance (ANCOVA) was used for testing the hypotheses at 0.05 level of significance. The results showed that the integration of cooperative learning method and multimedia technologies significantly increased students' achievement and retention of poetry when compared to traditional lecture method. Therefore, recommendations were made such as additional time for planning lessons that integrate cooperative learning and multimedia technologies and further professional capacity building in technology use.

Keywords: Cooperative Learning, Multimedia, Integration of Technology, Poetry, Literature-in-English.

Introduction

Rapid evolution of technology and modern methods have changed language pedagogy as well as perspectives on language teaching and learning, leading to strategic changes in the literary classroom. Perhaps, the best innovation practice that English Language teachers have imbibed is integration of technologies in English Language Teaching (ELT) classrooms to improve and increase self-directed learning, learners' motivation, integrated language skills and self-learning environment (Durga, 2020). In the 21st century, the integration of multimedia technology and cooperative learning methods are in vogue in ELT online and offline classes.

In this study, integration of technologies in language education simply refers to the use of technology to enhance the students' learning experience. Also, technology integration in the ELT classroom denotes the enhancement of the education environment with technology (Ahmadi & Reza, 2018). So then, the use of modern technology in ELT is broadly understood to encompass an innovative application of methods, tools, materials, devices, systems and strategies which are directly relevant to ELT and lead to the achievement of the desired goals (Mofareh, 2019). One of such tools employed in this research is multimedia technology.

Multimedia technology has been advancing the development of second language learning and teaching over the past two decades (Ruofei & Di, 2021). Multimedia refers to channels, gadgets and content that uses a combination of different modes such as texts, audios, images, animations, videos, graphics and interactive content to transmit information to learners. Multimedia is a sharp contrast with media that applies only rudimentary computer displays such as text-only or traditional forms of printed or hand-produced material. Over the years, research has shown that people remember 20% of what they see, 40% of what they see and hear, but 75% of what they see, hear and do simultaneously (Krishnasamy,

2016). With multimedia, the transmission of information can be done in a more effective manner and it can also be a veritable instructional medium for delivery of learning materials and information.

Integration of multimedia presentation has made ELT a subject of research from technological point of view. Ruofei and Di (2021) reported that multimedia technology has been extensively investigated and applied as facilitative in second language education. The following are some empirical researches of multimedia technology in ELT.

In a research to determine the effects of contemporary interpretation of epic poems on the attitudes of students towards computer mind maps in Serbia, Laketa (2018) found that there was a significant differences between the mean achievement of students taught with multimedia technology compared to those taught with traditional method. More specifically, students in the experimental group (multimedia strategy) achieved higher than those in the control group (traditional lecture method). Additionally, Yi, Zhijin, Shaoying, Dandan and Jing (2021) conducted a research on the effects of emotional design on multimedia learning and appreciation of Chinese poetry. One hundred and sixty-six participants in China (14-15 years old) were randomly assigned to one of four conditions created by two factors (external emotion induction and internal colourful design). The results showed that the combination of external emotion induction and internal colourful design promoted positive emotions, retention and transfer performances of learners. These findings indicated that emotional designs in multimedia facilitated the learning performance of middle school students in Chinese poetry. No doubt, all these revealed the benefits of multimedia technology to learning.

There are many benefits of integrating multimedia technology in ELT classroom. According to Djoko, Sri and Maria (2021), one of the ultimate goals of multimedia language teaching and learning is to promote students' motivation and learning interest which can be a practical way to get them involved in the learning of the target language. Judging from these contributions of multimedia technology to ELT classroom, it can be seen that its application not only provides concrete learning experience but also helps the learners integrate the experience to real life situation. As noted earlier in this discourse, by combining technological and pedagogical knowledge, English language learners stand a chance of having a good command of the target language. One of such methods of teaching is cooperative learning method.

Cooperative learning method is an instructional method in which students work in small groups to accomplish a common learning goal under the guidance of the teacher. According to Omenka (2018), cooperative learning is a student-centred, teacher-facilitated instructional method in which a small group of students are responsible for their own learning and the learning of all group members in order to solve a problem, complete a task or achieve a goal. In this method of teaching, students work in groups to complete tasks collectively towards academic goals by capitalising on one another's resource and skills (by asking one another for information, evaluating one another's ideas, monitoring one another's work and so on).

A good number of scholarly researches, articles and studies have lauded the positive significant contributions of cooperative learning method and its effect on students' achievement and retention in second language learning and teaching (Vitalize, Fred & Bernard, 2020). For instance, Esin and Ali (2016) observed that cooperative learning method seem to significantly increase students' academic achievement, interest and retention compared to traditional lecture method. Similarly, Page (2017) established that cooperative learning activities had many functions in learning activities. For example, it gave learners a lot of chance to operate in cohorts, work and discuss in groups and ensured that all team members did everything from lesson planning and solving difficult challenges together. In addition, Sharon (2018) found that learner's collaboration promoted constructiveness and inspired students to learn, unlike in competition strategies. Apart from that, meta-analytic studies conducted on cooperative learning method supports the effectiveness of the method on students' long-term achievement, motivation and retention in literary classroom (Eric, 2021). Some empirical studies on cooperative learning method indicated that it has significant effect on students' task achievement and academic achievement and retention in poetry.

For example, Vitalice (2018) conducted a study on the effects of cooperative learning approach on the students' achievement and attitude toward oral literature genres in selected secondary schools in Kisii, Kenya. The results showed that students taught with cooperative learning method had higher achievement mean scores than students taught with conventional method. Also, Omenka (2018) did a study on the effect of cooperative learning method on students' achievement and retention of poetry in senior secondary schools in Benue State, Nigeria. The result revealed that cooperative learning method significantly increased students' academic achievement and retention of poetry when compared with the traditional lecture method. In summary, cooperative learning method increases target language uses, improves communication skills, retention of poetry, enhances academic achievement, builds confidence and stimulates learners' autonomy.

Despite the benefits and significant studies supporting the use of active learning methods in the classroom, Costouros (2020) opined that second language teachers continue to use traditional lecture method as their primary teaching method. Though statistics have shown that 75% to 95% of students who adopt modern means of learning second language learning and teaching achieve higher results in their attainment than students who were taught by traditional means (Mofareh, 2019). Hence, poor achievement and retention of Literature-in-English could be due to the instructional method used.

Literature-in-English may be defined as fictional and imaginative creative writings as well as spoken or sung texts (poetry, prose and drama) that are especially distinguished in form, expression and emotional power. According to Ighile and Nwodo (2013), Literature-in-English is an art made realizable in imaginative expression or a special use of language. Literature-in-English and language are closely related. In fact, Literature-in-English is constituted by language and it represents one of the most recurrent users of language. It helps the student develop the basic skills of language (listening, speaking, reading and writing) (Koutsompou, 2015). More specifically, Literature-in-English furnishes the language learner with genuine, authentic samples of language and also with real samples of a wide range of styles, text types and registers.

In spite of the aesthetic value that Literature-in-English affords, students' achievement in the subject has been very low. Fakeye (2010) agreed that the poor achievement of students in Literature-in-English has resulted in declining enrolment in the subject because the subject has been perceived as a difficult one from which students run away. The trend of poor achievement of senior secondary school students in Literature-in-English has also been confirmed by the West African Examination Council (WAEC). The WAEC Chief Examiner's reports have consistently revealed that candidates who sit for the examinations performed poorly in poetry. At least, for a decade 2010 - 2020, candidates who sat for paper 3 of Literature-in-English have recorded low achievement in West African Senior Secondary Certificate Examination (WASSCE). For example, the WAEC report of 2017 lends credence to this fact. The Chief Examiner's Report stated that the standard of the paper compared favourably with those of the previous years in both content and requirement. However, candidates achieved poorly and very much below standard. In his words, the Chief Examiner highlights candidates' poor achievement in poetry: "As usual, candidates were weak in poetry and question on style because they lack the skills of expression of thoughts and gave answers out of context" (WAEC, 2017, P. 7).

Several reasons could account for senior secondary school students' low achievement and retention in poetry. Probably, the most significant of these reasons is the use of inappropriate method of teaching poetry. Therefore, integration of multimedia technology and a modern method of teaching like cooperative learning that are learners-centred could be the way to address the poor achievement and retention of students in poetry. Apart from integrating multimedia instructional technology and cooperative learning method in ELT classroom, the researcher is also interested in studying academic achievement and retention. The low academic achievement and retention of senior secondary school students in poetry have been a source of concern to language educators about the future of language learning.

Academic achievement in poetry means performance outcomes in public examination that indicates the extent to which students in poetry have accomplished specific goals that were the focus of activities in instructional environments, especially in senior secondary schools. Students' achievement may be teacher-made test or standardised test (Nworgu, 2015). Achievement is connected to retention. A student's academic achievement in poetry is ultimately determined by the quality of poetry retention in a literary classroom. Retention and retrieval of knowledge are crucial factors in the achievement of students in a subject. Academic retention is the ability to absorb, hold or keep in memory what has been learned and hence remember or utilize the already acquired knowledge or skill over an extended period of time (Omenka, 2018).

The main theories that underpin multimedia technology instruction and cooperative learning method are: Cognitive theory of multimedia learning by Mayer Richard and Social Constructivism theory by Morton Deutsch. Cognitive theory of multimedia learning emphasises that learners attempt to build meaningful connections between words and pictures and process them actively in long-term memory. The theory is based on three assumptions: dual channels, limited capacity and active processing (Mayer, 2014). Basically, social constructivism in language learning is a theory based on observation and scientific study about how people learn. The theory says that learners construct their own understanding and knowledge of the world, through experiencing things and reflecting things and reflecting on those experiences. Learning is both an individual and social process. Generally, social constructivist learning theory aims to identify how to implement learning processes in the classroom and how knowledge is co-constructed (Butler & Griffin, 2010).

Taking Mayer's and Deutsch's ideas where language is done with social interaction, multimedia technology and cooperative learning focus on language learning in natural settings through the use of interaction in pairs or/and group work. Through interactions, student can have the opportunity to exchange information and bring new idea, stimulate their imagination and creativity. It is against this background that the researchers decided to carry out a study on the effect of integrating cooperative learning and multimedia technology on secondary students' achievement and retention in poetry in Benue State. Poetry as an important genre of Literature-in-English in the senior secondary school is taught for the numerous benefits it offers language learners. However, in spite of the importance of teaching and learning poetry in schools, it is disheartening to note that students' achievement and retention in poetry have been consistently poor. Evidence abounds in research studies to point to such poor academic achievement and retention (WAEC Chief Examiner Reports, 2010 -2020). A vast majority of students find poetry difficult and complex which is reflected in the low academic achievement and retention.

The perennial and persistent poor achievement and retention of senior secondary school students in poetry was suspected to be related and attributed to the consistent use of traditional lecture method in teaching and learning poetry. The traditional lecture method involves rote learning, chalk and talk, parroting of unfamiliar ideas and regurgitation of facts and knowledge. The outcome of this mode of instructional method has not adequately improved the academic achievement and retention of students in poetry over the years. No doubt, avalanche of modern methods and technologies like cooperative learning and multimedia technology abound for integration in the Literature-in-English classroom. However, the availability of methodology and technology do not necessarily lead to integration that support students' learning. The application of modern methodology and technology in the Literature-in-English is still low. Hence, pedagogical practice must change with the times. Therefore, there is a need to integrate cooperative learning method and multimedia technology to see if they could increase academic achievement and retention of students in poetry. Research revealed that cooperative learning and multimedia instruction are popular and extensively researched methods around the globe. Yet are rarely integrated in actual inclusive poetry classroom in Nigeria.

Furthermore, a review of the literature showed that cooperative learning method and multimedia technology require a staged and sustained approach to implementation which has led to a gap between its potential and actual integration. The literature does not give much space to the actual integration of cooperation learning and multimedia technology instruction especially in Nigerian secondary schools by English Language teachers and their effects on students' academic achievement and retention in poetry classroom. This study aimed to filling this gap in the literature and practice. In view of that, the problem of this study posed as a question, is what effects do integration cooperative learning method and multimedia technology instruction have on senior secondary school students' achievement and retention on poetry in Benue State, Nigeria?

The following research questions guided the study:

1. What is the effect of integrating cooperative learning method and lecture method on the mean achievement scores of students taught with poetry?
2. What is the effect of integrating multimedia technology and lecture method on the mean achievement scores of students taught with poetry?
3. What is the effect of integrating cooperative learning method and lecture method on the mean retention scores of students taught with poetry?
4. What is the effect of integration multimedia technology and lecture method on the mean retention scores of students taught with poetry?

The hypotheses stated below guided the study and was tested at probability less than 0.05 level of significance.

Ho 1: There is no significant difference in the mean achievement scores of students taught poetry using cooperative learning method and lecture method.

Ho 2: There is no significant difference in the mean achievement scores of students taught poetry using multimedia technology and lecture method.

Ho 3: There is no significant difference in the mean retention scores of students taught poetry using cooperative learning method and lecture method.

Ho 4: There is no significant difference in the mean retention scores of students taught poetry using multimedia technology and lecture method.

Research Method

The research design was quasi-experimental research design. Specifically, pretest, posttest non-equivalent control group design was used. By this, students in the two groups— Experimental and Control, had the same pretest and posttest while treatment was applied only to the Experimental Group.

The population of the study consisted of 1545 students. There are 98 co-education senior secondary schools in Zone C Education Zone of Benue State. The entire co-education senior secondary two (SS II) students offering Literature-in-English in the 2020/2021 academic session in Zone C Education Zone of Benue State constituted the study. The choice of SS II students was to ensure that students used for the study were adequately exposed to the senior secondary school Literature-in-English curriculum especially with regard to achievement and retention of poetry to enable them attempt the Literature-in-English Achievement Test designed for the study.

Purposive sampling technique was used to draw a sample size of 150 SS II students offering Literature-in-English in four co-educational schools. The schools were selected using purposive sampling to ensure that only schools that have qualified Literature-in-English teachers and allowed the use of their students were selected. Two intact classes were used for the study since most of the schools have only two intact Literature-in-English classes.

The research instrument used for data collection was Literature-in-English Achievement Test (LAT), developed by the researchers. LAT was used for pretest, posttest and retention test. The items in the LAT were used for pretest and was reshuffled for posttest and later reshuffled and used as retention test. LAT is a four-item instrument which comprised essay questions drawn from poems. The essay test was developed from the topics in SS II current curriculum and scheme of work under African and non-African poetry. Total mark was 40 and each item in the instrument carried equal marks; while the lowest mark was 0.

The LAT was subjected to both face and content validation. The research instrument was validated by three experts in Language Education and Measurement and Evaluation, Benue State University, Makurdi. The instrument was validated in terms of scope of coverage, clarity of the questions asked and appropriateness of the questions to the students' level of understanding. Some useful comments were made by the validators which formed the bases for corrections of the final instrument.

The instrument was trial tested for two weeks among 44 SS II students offering Literature-in-English from two different co-educational secondary schools with similar characteristics to the schools that participated in the main study. Pearson Correlation was used to analyse the scores of students which yielded a reliability of 0.93 and 0.93 alpha coefficient for the pretest and posttest respectively which is considered as good internal consistency. The research questions of this study were answered using means scores and standard deviation.

Table 1: Mean (x) and Standard Deviation (SD) Achievement Scores of Students Taught Using Cooperative Learning Method and Traditional Lecture Method

Method	N	Pretest		Posttest		Gain Score
		X1	SD1	X2	SD ₂	
Cooperative	87	34.20	20.36	54.95	24.02	20.75
Traditional	103	29.50	17.05	41.85	19.10	12.35

The data on cooperative learning and traditional lecture method in Table 1 revealed that the gain score for students taught using cooperative learning was 20.75 while that of students taught with traditional lecture method was 12.35. Students taught poetry using cooperative learning, therefore, performed better than students taught with traditional learning method.

Table 2: Mean and Standard Deviation of Achievement Scores of Students Taught Using Multimedia Technology and Traditional Lecture Method.

Method	N	Pretest		Posttest		Gain Score
		X1	SD1	X2	SD ₂	
Multimedia	87	36.22	23.21	60.21	26.03	23.45
Traditional	104	27.40	16.07	42.45	18.11	13.25

The data on multimedia technology and traditional lecture method in Table 2 showed that the gain score for students taught using multimedia learning was 23.45 while that of students taught with traditional lecture method was 13.25, therefore, students taught poetry using multimedia strategy achieved considerably better than those taught with traditional lecture method.

Table 3: Mean and Standard Deviation of Retention Scores of Students Taught Using Cooperative Learning Method and Traditional Lecture Method.

Method	N	Pretest			Posttest	Gain Score
		X1	SD1	X2		
Cooperative	87	54.95	24.02	58.6	23.60	3.72
Traditional	103	41.85	19.10	45.08	19.76	3.23

The data on cooperative learning and traditional lecture method in Table 3 revealed that the retention gain score for students taught using cooperative learning was 3.72 while that of students taught with traditional lecture method was 3.23. Students taught poetry using cooperative learning therefore, had slightly higher retention score than students taught with traditional learning method.

Table 4: Mean and Standard Deviation Retention Scores of Students Taught Using Multimedia Technology and Traditional Lecture Method.

Method	N	Pretest			Posttest	Gain Score
		X1	SD1	X2		
Multimedia	87	65.15	29.03	69.58	25.12	5.14
Traditional	114	52.75	21.32	53.21	20.15	4.25

The data on multimedia learning and traditional lecture method in Table 4 indicated that the retention gain score for students taught using multimedia learning strategy was 5.14 while that of students taught with traditional lecture method was 4.25. This implies that students taught poetry using multimedia technology had a little higher retention mean score than students taught with traditional lecture method.

Discussion of Findings

The findings of this research revealed the following: Students taught poetry using cooperative learning therefore, performed better than students taught with traditional learning method. Students taught poetry using multimedia strategy therefore, achieved considerably better than those taught with traditional lecture method. Students taught poetry using cooperative learning method therefore, had slightly higher retention mean score than students taught with traditional lecture method. Students taught poetry using multimedia learning strategy therefore, had a little higher retention mean score than students taught with traditional lecture method. Therefore, there was a significant difference in the mean achievement and retention scores of students taught with cooperative learning method compared to students taught with traditional lecture method. Furthermore, there was a positive significant difference in the mean gain achievement and retention scores using multimedia technology compared to the students taught with traditional lecture method. The result is in agreement with Ominini and Jennifer who found that the traditional face-to-face classroom-based instruction with an instructor-dominating instructional delivery which seem not to bring about the significant flexibility offered by the use of educational technology for the creative, innovative and professionally fulfilled workforce in the 21st century.

The findings also in agreement with Aisha, Amna and Muntasir who found that multimedia presentations encourage students to work in groups, express their knowledge in multiple ways, solve problems, revise their work and construct their knowledge. Students have the opportunity to learn

and apply real-world skills. They learn the value of teamwork; the impact and the importance of different media, including design issues, media appropriate and how to accept and provide constructive feedback.

Conclusion

The study investigated the effect of integrating cooperative learning method and multimedia technology in students' achievement and retention of poetry in Benue State. State-of-the-art review of ELT integration of modern methodology and multimedia technology revealed that traditional lecture method of imparting knowledge to language learner have become less motivating. Nowadays, the stereotyped traditional lecture method is unpopular. Meanwhile, integrating cooperative learning and multimedia technology into literally classroom facilitates the creation of virtual environment that transform learning from a traditional passive experience to one of discovery, innovative thinking, self-study, creativity, exploration, excitement and self-reliant in a less stressful classroom setting in line with the philosophy of Nigerian education.

However, modern based methodology and technology-based curriculum do not automatically guarantee integration in poetry classroom that supports students' learning as pointed out earlier on the study. Language teachers' integration of cooperative learning and multimedia technology in actual literally classroom could be described as either reluctant or at a limited level.

Therefore, the researcher concludes that judicious integration of cooperative learning method and multimedia technology could improve the desired pedagogical outcome in the Literature-in-English classroom for the creative innovative and professionally fulfilled workforce in the 21st century.

Recommendations

In view of the above, it is recommended that:

1. The school authorities and curriculum planners should urgently organise task force for effective integration of cooperative learning and multimedia technology.
2. School owners should make available adequate modern technologies such as computer hardware, software, internet access in language classrooms.

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**IMPACT OF ASSISTED LANGUAGE LEARNING INSTRUCTION ON
SENIOR SECONDARY SCHOOL STUDENTS' ATTITUDE ON ORAL
ENGLISH IN OHIMINI LOCAL GOVERNMENT AREA
OF BENUE STATE**

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Abstract

This study investigated the Impact of Computer Assisted Language Learning Instruction (CALLI) on Senior Secondary two students' attitude towards Oral English in Ohimini Local Area of Benue State. The study was guided by two research questions and two hypotheses. The study adopted a quasi-experimental design. The population of the study consisted of all the 3,641 Senior Secondary School SS2 students in the 41 secondary schools in Ohimini local government area out of which two intact classes of 86 students were sampled for the study. The instrument for data collection was Oral English Attitude Survey (OEAS) and Oral English Performance Test (OEPT). The data were analysed using mean and standard deviation to answer the research questions. The hypotheses were tested at 0.05 level of significance using Analysis of Covariance (ANCOVA). The findings of the study revealed that there was a significant difference between the mean attitude score of students taught oral English using Assisted Language Learning Instruction. Therefore, it was recommended that workshops and seminars should be organised by government and non-governmental organizations for teachers to sensitize them on the effectiveness and efficient use of the Assisted Language Learning Instruction in order to boost students' attitude towards the learning of Oral English in secondary schools among others in Ohimini Local Government Area.

Keywords: Language Learning Instruction, Senior Secondary School, Attitude and Oral English

Introduction

English language occupies a strategic place in the political, social, economic and educational spheres of Nigeria. It cuts across the curriculum as the language for teaching and learning, a subject of instruction and the language of examination (Udu, 2017). Its importance has led the Government of the Federation to make its teaching and learning mandatory in schools. At the secondary school level of education, candidates wishing to proceed to tertiary schools must earn a credit pass in English language. This development has placed a heavy demand on English language. Experts in teaching English language are in short supply and many of those teaching the subject are not using effective teaching methods in teaching the subject. On their part, students device different ways of passing the subject to the extent that some engage in examination malpractice.

The West African Examinations Council (WAEC) Chief Examiners' report (2019; 2020; 2021) for English language has consistently decried that students' performance in English language is not entirely satisfactory. One component that students are not performing well is the oral English component. Candidates often show a poor grasp of pronunciation, stress and intonation. This is particularly worrisome because, the spoken aspect of language is the most basic and students need this aspect to be able to interact with others on the streets, in the market place, worship centres and most importantly on school campuses. The students need to communicate intelligibly and be communicate with in English as this will pave the way to also understand other subjects in the curriculum (Agayo & Udu, 2020).

This crucial aspect falls under what is popularly called oral English. Enyeazu (2020) defines oral English as the systematic study of the sounds of language and the way in which they are produced. The best way to learn the pronunciation of the sounds which is embedded in oral English is by a systematic study of the sounds of the language through intensive drills. In the 21st Century, which is dominated by superhighway Information Communication Technology (ICT), experts are advocating for the use of ICT-supported teaching strategies for more effective classroom instruction. It is on this basis that Assisted Language Learning Instruction easily comes to mind.

Assisted Language Learning according to Parab (2015) is yet another manifestation of mediated language learning instruction. The first phase of the Assisted Language Learning Instruction was conceived in 1950 and was implemented in 1960s and 1970s. In this strategy, the computer gives a stimulus to the learners by being not a mere tool but also an instructor which facilitates the teaching and learning of all the subjects in the curriculum.

Many learners of English language as a second language face have difficulty with pronunciation of English sounds. The problem is made worse by the phenomenon of mother tongue or first language interference. Apart from the problem of poor pronunciation, students in secondary schools have poor intonation and lack the required skills in phonetic transcription. All these areas are tested in the oral English paper in national examinations such as Senior School Certificate Examination and Unified Tertiary Matriculation Examinations. The teaching of oral English is weighed down by various factors which have contributed to the slow pace and ineffectiveness in teaching the course. For instance, the predicament that second language speakers face is that, even if they know the words when they see them written down or hear them in isolation, they may not recognize them when they hear them in connected speech. Could, teaching strategies, students' attitude and gender exacerbate these problems? Efforts to investigate this problem have led researchers to test the efficacy of using computer assisted instruction to determine if students' attitude and performance in oral English can be enhanced. Assisted Language Learning Instruction represents a teaching tool or strategy that involves the use of a computer programme to facilitate the education of a group of students.

Alshwairkh (2020) and Baturay, (2022) affirm that learners consider the computer a useful tool to discover and learn new vocabulary and to supplement in-class instruction. Assisted Language Learning Instruction could increase students' attitude and hence improve their academic performance as it provides them with more stimulating experiences than the form-focused approach.

In the teaching and learning of oral English, attitude stands out as an important determinant of success. Invariably students' academic performance in oral English is influenced in one way or the other by their attitude in the subject. Okoro (2011) is of the view that attitude is an emotionally oriented trait which determines the vigour of the learner tackling education and other activities; and results in the tendency to seek out and participate in activities of choice as against others.

It is assumed that if students are taught with the strategies and method that makes them think creatively and develop positive attitude, and actively participate in learning they will be able to reach the predetermined objectives. One of the teaching methods believed to lead to the attainment of predetermined instructional objectives in computer assisted language learning instruction. Corroborating this view, Hussain and Ali (2012) revealed that computer assisted language learning instruction makes students to show positive attitude and retain the concepts learnt for a long period of time thereby improve their performance. Testing this assumption, Wang (2011) studied the effect of computer-assisted whole language instruction on Taiwanese University students' English learning in Taiwan. A total of 212 freshmen (98 low level and 114 high level students) were randomly selected as the participants of the study. The results of the study indicated that most students evaluated the instruction positively. While the significant difference in the gain scores of the t-test revealed that integrated instruction was effective in improving students' reading ability ($p=0.00$), basic-level students had much greater improvement than advanced-level students, whose scores even showed slight regression.

Apart from methods of teaching, gender is also a factor that may influence students' attitude and academic performance in oral English. Singh (2010) opines that gender refers to a socio-cultural construct that connotes the differentiated roles and responsibilities of men and women in a particular society. This definition implies that gender determines the role, which one plays in relation to general political, cultural, social and economic system of the society.

Deficiency in the components of oral English such as vowel sound, consonants sound, diphthongs, stress and intonation and emphatic stress can be a great limitation to anyone that needs to survive in an environment where English is the tool of politics, education, commerce, religion and information among others (Omojuwa, Timothy & Obiekezie, 2009). Oral English is an aspect of

English language which is very important in assessing the attitude and performance of students in senior secondary school because it determines their effectiveness in pronunciation, oral English is concerned with the concrete characteristics of the sounds used in language (Udu, 2013). Assisted teaching could be an effective strategy involving the use of the computer software, computers, the internet, online dictionaries, radio, handset, compact disc (CD), vide compact disc (VCD) to reinforce students' attitude and improve performance in English language. This study thus, seeks to investigate the impact of assisted language learning on SS2 students' attitude and performance in oral English in Ohimini Local Government Area of Benue State.

Purpose of the Study

The purpose of this study is to investigate impact of Assisted Language Learning Instruction on Senior Secondary School two (SS2) students' performance and attitude to in oral English in Ohimini Local Government Area of Benue State. Specifically, the study sought to:

1. Ascertain the mean attitudescoresof students' taught oral English using computer assisted language learning instruction and those taught using form-focused approach.
2. Determine the difference in the mean attitudescoresof male and female students taught oral English using Assisted Language Learning Instruction.

Research Questions

This study was guided by two research questions as follows:

1. What are the mean attitude scores of students taught oral English using Assisted Language Learning Instructionand those taught usingForm-focused Approach.
2. What is the difference in the mean attitudescoresof male and female students taught oral English using Assisted Language Learning Instruction?

Hypotheses

The following hypotheses were formulated and tested for the study:

1. There is no significant difference in mean attitudescores between students taught oral English using Assisted Language Learning Instruction and those taught using form-focused approach.
2. There is no significant difference in the mean attitudescoresof male and female students taught oral English using Assisted Language Learning Instruction.

Method

Research Design

The researchers adopted a pre-test post-test quasi-experimental design. Quasi-experimental design according to Dinardo (2018) is a research design in which a treatment or stimulus is administered to only one of two groups whose members were randomly assigned. The target population for this study consisted of all the 3,641 Senior Secondary School (SS2) students in the 71 secondary schools in Ohimini Local Government Area of Benue State during the 2022/2023 academic session. The choice of SS2 students for the study was considered appropriate because observation has shown that senior school students perform poorly in oral English. Two public schools were purposefully selected. This was to ensure that the researchers selected schools equipped with computer laboratories. The sample of the study consisted of eighty-six (86) senior secondary school two (2) students during the 2022/2023 academic session.

The researchers utilized Oral English Attitude survey (OEAS) and Oral English Performance Test (OELPT). The researchers constructed 25 items on (OEAS) consisting of two sections: A and B Section "A" elicited personal information from the respondents, while Section "B" sought information on students' attitude in Oral English 4-points scale. The weightings of the responses were Strongly Agree (4 points), Agree (3 points), Disagree (2points) and Strongly Disagree (1 point). The respondents ticked the options to reflect their level of agreement or disagreement with the statements in the Oral English Attitude Survey. To determine the reliability of the instruments, the instruments trial-tested on 20 students within the study area who were not part of the main study. The results were used to compute the instruments' reliability using Kuder-Richardson 21 for OEAS and Cronbach coefficient alpha for OELPT. A reliability coefficient of 0.76 was obtained for OEAS while that of OELPT was found as 0.78 both instruments were considered reliable since they met Emaikwu's(2019) recommendation of the 0.70 of minimum coefficient. The instruments were supported with minimum lesson plans designed by researchers following the four recommended steps by Anderson (2018).

Mean and standard deviation were used to answer the research questions while Analysis of Covariance (ANCOVA) was used to test the hypotheses at 0.05 level of significance.

Results

Research Question 1: What are the mean attitude ratings of students taught oral English using Assisted Language Learning Instruction and those taught using form-focused approach?

Table 1: Mean and Standard Deviation of Attitude Ratings of Students Taught Oral English Using Assisted Language Learning Instruction and those Taught in the Control Group

Method	N	Pre-attitude		Post-attitude		Mean gain
		x	SD	x	SD	
CAI (Experimental Group)	45	2.56	.32	3.03	.30	0.47
Form-focused approach (Control Group)	41	2.45	.43	2.87	.42	0.37
Mean Difference						0.10

Table 1 shows the mean interest ratings of students taught Oral English using computer assisted language learning instruction and those taught using form-focused approach. The table shows that 45 students were taught Oral English using Assisted Language Learning Instruction while 41 students were taught oral English using form-focused approach. The table reveals that the mean attitude ratings of English language students taught Oral English using Assisted Language Learning Instruction was 2.56 with a standard deviation of 0.32 at pre-test, their post test scores was 3.03 with a standard deviation of 0.30. While the mean attitude ratings of students taught Oral English using form-focused approach was 2.45 with a standard deviation of 0.43 at pre-test and their post test scores was 2.87 with a standard deviation of 0.42. Table 1 further shows that the mean gain of students taught Oral English using computer assisted language learning instruction were 0.47 and that using approach was 0.37. The mean difference between the two groups is 0.10 in favour of students taught Oral English using Assisted Language Learning Instruction.

H₀₁: There is no significant difference in mean attitude ratings between students taught oral English using Assisted Language Learning Instruction and those taught in the form-focused approach.

Table 2: ANCOVA on Mean Attitude Ratings between Students taught Oral English using Assisted Language Learning Instruction and those taught in the form-focused approach

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.
Corrected Model	8.584(a)	2	4.292	128.622	.000
Intercept	1.338	1	1.338	40.098	.000
Pre-Attitude	8.061	1	8.061	241.554	.000
Approach	.238	1	.238	7.129	.009
Error	2.736	83	.033		
Total	751.854	86			
Corrected Total	11.320	85			

R Squared = .758 (Adjusted R Squared = .752)

Table 3 reveals that $F(185) = 7.129$; $p=0.009 < 0.05$. Since the p value (0.009) is less than the alpha level (0.05), the null hypothesis is not accepted. This means that the Assisted Language Learning Instruction has a significant impact on students' performance than the control group. Thus, the null hypothesis is therefore rejected. This implies that there is a significant difference in the mean attitude ratings between students taught oral English using computer assisted language instruction and those taught using form-focused approach. Thus, it can be concluded that there is a significant difference between the mean attitude ratings of students taught oral English using Assisted Language Learning Instruction and those taught using form-focused approach.

Research Question 2: What is the difference in the mean attitude ratings of male and female students taught Oral English using Assisted Language Learning Instruction?

Table 3: Mean and Standard Deviation of Attitude Ratings of Male and Female Students taught Oral English using Assisted Language Learning Instruction

Gender	N	Pre-attitude		Post- attitude		Mean gain
		x	SD	x	SD	
Male	28	2.54	.30	3.01	.27	0.46
Female	17	2.55	.38	3.03	.37	.47
Mean Difference						0.01

Table 2 shows the mean attitude ratings of male and female students taught Oral English using Assisted Language Learning Instruction. Table 2 shows that 28 male students and 17 female students were taught Oral English using Assisted Language Learning Instruction.

Table 2 indicates that the mean attitude ratings of male students was 2.54 with a standard deviation of 0.30 at pre-test and the post test scores was 3.01 with a standard deviation of 0.27. While the mean attitude ratings of female students taught using Assisted Language Learning Instruction was 2.55 with a standard deviation of 0.38 at pre-test, the post test scores was 3.03 with a standard deviation of 0.37. Table 2 further reveals that the mean gain of male students taught using Assisted Language Learning Instruction was 0.46 and that of the female students taught using Assisted Language Learning Instruction was 0.47. The mean gain difference between the two groups is 0.01 in favour of the female students.

Ho₂: There is no significant difference in the mean attitude ratings of male and female students taught oral English using Assisted Language Learning Instruction

Table 4: ANCOVA on Mean Attitude Ratings between Male and Female taught Oral English using Assisted Language Learning Instruction

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.
Corrected Model	3.925(a)	2	1.962	339.765	.000
Intercept	.344	1	.344	59.471	.000
Pre-Attitude	3.919	1	3.919	678.478	.000
Gender	.001	1	.001	.180	.674
Error	.243	42	.006		
Total	413.004	45			
Corrected Total	4.168	44			

R Squared = .942 (Adjusted R Squared = .939)

Table 4 reveals that $F(1,44) = 12.050$; $p = 0.674 > 0.05$. Since the p value (.674) is greater than the alpha level (0.05), the null hypothesis is accepted. This means that there is no significant effect on the mean attitude ratings of male and female students taught oral English using Assisted Language Learning Instruction. Thus, the null hypothesis is therefore accepted. Thus, it can be concluded that significant difference does not exist between the mean attitude ratings of male and female students taught oral English using Assisted Language Learning Instruction.

Discussion of Findings

The finding revealed that the students that are taught using Assisted Language Learning Instruction had higher positive attitude in the learning of Oral English than those taught using form-focused approach. To further confirm if the difference is statistically significant the corresponding hypothesis was tested and it was found that there is a significant difference in mean attitude ratings between students taught oral English using Assisted Language Learning Instruction and those taught using form-focused approach. A similar finding has been reported in a study by Chinwendu and Agommuoh (2017) that Assisted Language Learning Instruction had significant impact on students' attitude in physics, where students in the Assisted Language Learning Instruction group performed more. The finding is also similar to findings reported by Nattapong and Saowalak (2015) who found that the experimental group taught using Composition Aided Instruction attained significantly higher

development in English reading and writing at the .001 level and registered significantly higher attitude at the .01 level.

It was also found that the mean difference between the attitude ratings of male and female students taught Oral English using Computer Assisted Language Learning Instruction was 0.01 in favour of the female students. However, the value (0.01) was considered insignificant. This implies gender is not a factor in determining the impact of Assisted Language Learning Instruction on the students' interest in oral English. To further confirm if the difference is statistically significant, the corresponding hypothesis was tested and the result shows that there is no significant difference in the mean attitude ratings of male and female students taught oral English using Assisted Language Learning Instruction. This finding disagreed with that of Jones, Howe and Rua (2000) who found that more male than female students indicated they were interested in atomic bombs, atoms, cars, computers, x-rays, and technology, whereas more females reported interest in animal communication, rainbows, healthy eating, weather and AIDS. Generally speaking, the use of computer technology makes students to develop positive attitude and the class more interesting. The language teacher makes less effort in making students focused at the learning task.

Conclusion

The findings of this study have shown that students' attitude in oral English is enhanced by usage of Assisted Language Learning Instruction. Gender was not found to be a factor in determining student's attitude in oral English.

Recommendations

Based on the findings of this study the following recommendations were made:

1. Workshops and seminars should be organized by the Government of Benue State through the Teaching Service Board for teachers teaching English language at the Senior Secondary School Two level. Such teachers need to be sensitized about the effectiveness of Assisted Language Learning Instruction in developing students' attitude towards the learning of oral English in secondary schools.
2. The Government of Benue State should ensure that all state-owned secondary schools have the required computers and ICT tools relevant to the 21st Century classroom. This will also place Nigerian secondary school products at par with their peers in other parts of the world.

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**THE ROLE OF TECHNOLOGIES IN ENHANCING CAPACITY
BUILDING AND SKILLS DEVELOPMENT OF LANGUAGE
TEACHERS FOR SUSTAINABLE DEVELOPMENT IN NIGERIA**

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Abstract

There is growing awareness and paradigm shift from traditional ways of teaching and learning to using ICTs facilities- laptops, internet, computers, smart phones, tablets, iPods, ipads and podcast devices in driving knowledge. Technology-based learning as a component of ICT facilities are playing crucial roles in defining contents to be learnt and skills to be mastered in transforming how teachers and students learn to meet the growing demands of today's schooling by improving and developing the skills and knowledge of language teachers in teacher education institution in Nigeria. This paper, therefore, critically examined the use of technology as a necessity in the skill development of language teacher and enhancing capacity building for effective instructional delivery for sustainable development. It also gives an overview of concept of technology, language education, language teachers' preparedness for technology, ICTs and language teaching/learning, skills, capacity building skills, language and creativity skills, pedagogical skills, problem-solving skills, sustainable development, challenges of capacity building of language teachers using ICTs in secondary school, suggestions for improving capacity building workshops on ICTs for language teachers and for optimal performance on instructional delivery.

Keywords: Technology, Skill development, Language teachers, Capacity building, Sustainable development.

Introduction

Technologies are playing crucial roles in defining contents to be learnt and skills to be mastered in transforming how teachers teach and how students learn to meet the growing demands of today's schooling. There is a growing awareness and paradigm shift from traditional ways of learning to using laptops, internet, computers, smartphones, tablets, ipods, ipads and podcasts devices in driving knowledge. These devices are providing an enabling environment for the transformation and the wellbeing of nations. Abimbola (2015) conceived Technologies as applications and devices encompassing radio, television, cellular phones, computer, network, hardware and software, satellite systems, video-conferencing services and applications associated with distance learning. These are diverse set of tools and facilities used to create, communicate, disseminate, retrieve, process, store and manage information at anywhere and at any time. It is also termed as Information Communication Technology-ICT which at promoting teaching and learning in the 21st century globalization.

Etiubon (2017) avers that the younger generation is fast-catching up with ICTs with changing trends and speed, but the older generation is reluctant to embrace the shift and change. Lemamer (2013) posits that students today expect more from a classroom experience given by a teacher than a passive learning opportunity that consists mostly of one-way communication with limited student interaction. ICTs can respond to these deficiencies and needs by providing an effective model to enhance students' performance and reduce academic workload. ICTs create rich teaching environments to introduce new ideas, develop new skills and expand perspectives that can engage teachers in new experiences and create a community of learners for cross fertilization of ideas.

Technologies enable teachers to plan, manage and develop good lesson perspectives for appropriate skill acquisition. Bhalla (2013) cited... posits that teachers use computers to update subject matter knowledge and teaching skills, develop lesson plans, prepare additional instructional materials, notify students of relevant information via internet, prepare question banks and showcase students' work on school website. In these ways, teachers use the internet in more appropriate ways to source for information that support their own understanding (Lapite and Adeniyi, 2015). These reduce and simplify teachers' academic workload.

Concept of Technology in Education

Technology has found its application in everyday life as exemplified in; communication, Agriculture, medicine, industry, commerce, politics, religion, education, and warfare. In these endeavors, technology has found wide application ranging from the use of x-rays and gamma radiations in medicines to detect and destroy cancerous growth in humans through chemotherapy, eradication of nuclear threat by the creation of nuclear laser defense system, to cross-breeding and improved seeds varieties in agriculture (Afaor, Ada & Abuul, 2019).

In politics, technology has provided a more workable political system to the nations of the world through electronic balloting system made possible through impervious technology encryptions and date base. Technology today plays a prominent role in evangelization. Gone are the days of conventional preaching, nowadays preachers can reach out with the message of the scriptures to millions of their congregational preaching; nowadays preachers can reach out with the message of the scriptures to millions of their congregation all over the globe through internal and social media. Today Christians can afford to download the entire bible and other devotional applications to their cell phones and tablets for easy access.

Ivowi (2018) has given a comprehensive documentation of usefulness of ICT in education stating that an effective teacher must be that versatile as to be able to handle complex issues in education and the process of educating. For Adeoye (2014). The new-look classroom features PowerPoint presentation, use of projectors, interactive software, web quests, podcasts wikis, smart boards, information communication technology (ICT) and social networking software. There has been a remarkable transformative shift from the traditional role of the teacher in the classroom as the source of all knowledge and disseminating information to the teacher becoming more of a supportive guide allowing students to construct their own learning. In this digital age, teaching and learning process is becoming more nuanced, more seamless, and it flows back and forth from students to teachers and teachers to students (Adeoye, 2012)

The image of the classroom has been changed by ICT, which is a diverse set of technological tools and resources used to communicate, create, disseminate, store, and manage information. ICTs media such as films, videotapes, telephones, television or radio continue to play a critical role in education worldwide; and they are easily accessible compared to e-learning and most digital tools, computers or the internet.

Technology also encompasses broader themes such methods of organization and techniques. Various technologies have found their way and are now used in traditional classrooms, for example, computer is used in the classroom; with computer in the classroom, teachers are able to demonstrate a new lesson, present new materials, illustrate how to use new programmes.

Man has used science and technology for orientation into space and unfriendly ocean. In warfare, earliest man's weapon like the spear, has been replaced by successive more developed fighting weapons such as: the allies and Germans used gas contained in artillery shells and delivered on targets. Airplanes introduced new dimensions to war as jet bombers were used to destroy targets. Today, advancement in science and technology has introduced nuclear and chemical weapons. The introduction of computer into warfare has clearly demonstrated advancements in science and technology (Afaor, Ada & Abuul, 2019).

Technology in the classroom

Technology is the practical utility of scientific knowledge. Usually associated with technology are gadgets. We are today in the 21st century. We live in a technologically advanced world where more and more electronic gadgets are going wireless. We have mobile phone, wireless computer and even mobile television. A century where information technology will continue to dictate the pace of development. A century where communication infrastructures like Smartphone. Ipad, podcast, Fax, E-mail, and computer networking have turned the world into a globe village. A century where you will simply press knob and information and knowledge will be made available in a matter of seconds. Afaor, Ada and Abuul (2019) affirmed that, this is a century where classrooms and conventional

churches will no longer play prominent role in knowledge acquisition and teaching. The influence of the World Wide Web which provides ready access to information wherever it is situated in the world cannot be ignored.

National Policy on Education, (2014)

The national language policy is fully cognizant of the role of the English languages as a language of science and technology and that the technical knowledge and skills require for the transformation of the society is available at the tertiary education level. Nigerians who have attained a high level of academic and professional education should also have access to scientific information to found in literature which abound the world over, but are mainly on the English language. This essentially has informed the adoption of English as the language of higher education in the country, and various developments in the language have been such as to equip the user of the language to enable him cope with the linguistic demands of his profession

Also, a man in research has not completed his job until he has put his findings down in writing so that others can learn from him as well as see and judge the validity of his conclusions or the scientific or empirical proof (Bashorun, 2012).

Concept of language

Language is the major medium of communication among people, it serves as a form of identify for its users and a medium through which people culture is transmitted (Agwu, 2016). Nigeria is a multilingual nation with more than 400 languages spoken and over 250 ethnic groups. This makes the country as a conglomerate of cultural and linguistic differences. The situation makes the government to make policy statement encouraging ethnic group to study at least one of the Nigerian languages (Hausa, Igbo, or Yoruba) aside the wider community. This is done in order to promote linguistic equity peaceful coexistence and social interaction among the people.

Language is an important medium of human communication, a social tool which human being use for many purposes such as to educate, inform, influence and empower themselves and their societies for sustainable development. That is why Nwadike (2014) regards it as the key to the heart of the people if treasured will unlock the door to sustainable development. This implies that to achieve national development we need to treasure the key (language) and keep it safe so that it can bring about national development.

National development is described as the gradual and progressive changes in the social, economic and political life of a nation (Aziza, 1998 cited in Olaoye, 2013). These include: growth in terms of national unity and cohesion, educational development, socio-economic and political stability in the desired direction. Sustainable development is seen as the ability to make development sustainable to meets the needs of the present without compromising the future generation's ability to meet their own needs (Anyawu, 2017). This implies preserving the overall balance, preventing the exhaustion of natural resources and rationalization of production and human consumption (Muhammed & Kassim, 2020).

Language and Sustainable National Development

Language is important for the socio-economic and political development of the nation, as government policies are formulated and executed using language. Also, everything thought of and carried out by people generally whether in government or industry, is in language and through language. Language is the means by which we give vent to our thoughts, so in effect, thought will be limited without language. Planning is both a product of, and an externalization of thought and as language is the vehicle for the expression of thought, no meaningful planning for sustainable national development can take place without language. It is on this note that the significance of language in the process of national development can be appreciated. And as they say, human progress at the different stages has been assisted by the progression in what language is used to symbolize.

National Development

Generally speaking, development is the optimization of the natural and human resources of a nation for the fostering of political unity, for the efficient production and distribution of goods and services, for the efficient management of the production system, and for the enhancement of the social and economic well being of the people. In view of our experience in recent years, of abject poverty and ignorance on the part of the people. poorly planned, poorly executed and inefficient social services, poor industrial base, monocultural economy, rampant disease, poor health services, poor infrastructure, inadequate food production and low technological capacity, then we can also construe

as the attainment of national development, any such efforts or strategies capable of reversing the poor state of development outlined above underlying the concepts of sustainable development.

Sogbon (2000) identifies four fundamental factors which could provide the key to sustainable development economic growth and development as population, natural resources, capital formation (domestic and imported) and technology.

Population she sees as producing the labour force, and as a necessary factor for stimulating economic growth through an increase in aggregate demand for goods and services. The labour force is the one to manipulate and control the resources for ultimate goal of national development.

Concept of Sustainable Development

Development can be referred to as a process of providing an improvement, growth or progress in the lives of people. Agwu (2016) posits that development can be in different forms which include: educational, economic, social and political developments. It aims to bring about genuine human development either in form of material improvement, economic growth or reformation of institute and infrastructure. Sustainable development is the ability to make development sustainable to ensure that it meets the needs of the present without compromising the ability of future generation to meet their own needs” the definition of sustainable development is viewed in a broad form focusing in intergenerational equitable and balance that includes; economic, social, educational, environment aspect. Thus, for development to be sustained, there should be continuous balance in the interest of different groups within the same generation and among different generations.

Another definition provided by the United Nations during the World Summit (2005) refers to the pillars of sustainable development to include: social, economic and educational environment and several other conditions to meeting human needs while preserving the overall balance, regarding the environment so that these needs can be achieve not only in the present, but also for generations to come.

Nigeria is a multilingual nation facing challenges in all three dimensions of sustainable development: social, economic and environment. A lot of people are living in abject poverty and income inequality. This has resulted in a lot of social problems, unsustainable production huge economic and social costs (Anyawu, 2017). Nigeria as well as many developing countries abounds in a lot of problems ranging from hunger, malnourishment corruption. Language is an indispensable tool for sustained development: it is an important window to wider opportunities.

English language is a significant tool that can bring development in the socioeconomic, educational and environmental life of the people Nigeria, has been described as a multi-lingual society with over 400 languages spoken in the country has adopt English language as the official language and predominantly spoken as an attained a reputable position when compare to our indigenous language. English language is use as a medium of instruction in schools. It plays a vital role in education. Whether formal or informal is usually the medium through which knowledge and skills is imparted and acquired. Language education is one of the cardinal points in the Federal Government national economic policy. Ige (2000) describes language as a lamp by which the youth travels through the educational tunnel. Because of its global usage, English language empowers its users to take charge of their lives and prepare themselves for the future work.

Credibility of teachers is mostly assessed through their communicative competence: the way they communicate their ideas and stimulate learners through the effective use of language (Anyawu, 2017). The articulate and competent teachers always win the heart and respect of their students. The important role language plays in sustainable development cannot be overemphasized. Graham-brown (1991) states that education is the most fundamental instrument for achievement of social justice and equity among the populace. It is a means for the un-informed, underprivileged, marginalized and the oppressed within the society. It is therefore an indispensable tool for social, economic development. Language is regarded as the bed rock of national development (Olaoye, 2013). It is a bridge through which we perceived our culture, traditions and be able to communicate with one another. In the area of innovation and technological advancement: English language is used for the teaching and learning of science and technology in our schools. People who are competent in communication can have a better understanding and the interconnectedness of modern life. Therefore, there is to integrate and reinforce its teaching with ICTs-technologies in the classroom and teachers of the language to imbibe the culture of advancement to meet the global demands of the modern society.

English language Teachers’ Preparedness for ICTs

Preparing language teachers on the use of technologies is an important aspect of building manpower that will facilitate language learning outcomes for sustainable development. The major aim

of teacher education programme is to produce quality teaching force supply to the nation's need of teachers in her educational systems at all levels (Okonkwo, 2015). Thus, the deployment of ICTs becomes a necessary component for the production of quality language teachers. This is necessary because today's learners are becoming digital natives and their digital skills and interest can be meaningfully directed to make academic gains. Mishra, Promila and Harish (2007) recognized this importance and stated that majority of the countries in the world have provided ICT teacher training in a variety of forms and degrees; even though many teachers report that they have not had adequate training to prepare themselves to use technology effectively in teaching and learning. Effort is being made globally to effectively engage science teachers to use different technology tools to enhance teaching and learning. Teachers are trained via ICTs to learn how to use technology tools as complementary means to the teacher training process. Succinctly put, teacher training institutions are responsible to equip teachers to acquire skills to transform students' learning outcomes. Therefore, students' achievement in language to a great extent depends on how language teachers select appropriate ICTs to promote learning activities, develop new methods of facilitating learning and evaluating students' performance (Iweh, Okorie and Imeh, 2012). This enables language teacher achieves learning objectives.

In Nigeria, the teacher training institutions are ill-equipped with ICTs and can barely cope with student population. These institutions hardly provide the needed enabling environment for ICTs to thrive and as such, are finding it difficult getting qualified language teachers to teach ICTs. As a result, the quality of teacher educators in these institutions catering for teacher education have been the slowest and most lukewarm in adapting to anything that is new especially the demand of ICT in the revised teacher education curricular (Okafor, 2016). This has seriously affected the quality of language teacher's preparedness and the quality of education imparted to students using ICT technologies.

ICTs and English language

Language plays a crucial role in providing skills needed for oil, gas and energy exploration, drug manufacturing in pharmaceutical industries, improving health, farm and food services standards for better living as these skills of technological-industrial advancement are learned and acquired through the instrument of language. These sectors provide job openings for graduate students versatile in ICTs skills. Language teachers' knowledge of ICTs will impact on their students for effective use of computer applications that will enable them own explorative competencies towards constructive benefits for future gainful employment. Students can easily access ICTs and aspire for greater opportunities in a fast-changing global world (Etiubon, 2017). English language as a language of instruction is used to teach all the subjects in the curriculum like arts, science and technology, education. This should inspire students to study and pursue careers in related ICT fields. This could improve students' performance and give them opportunities to make appropriate career decisions and choices.

In spite of the growing knowledge and application of ICTs in different workplaces and multinational companies, it is alarming that many language teachers who make use of hand phones, Smartphone, ipads, ipods and laptops are not able to access ICT environments for lesson delivery experiences except to send text messages and access journal articles for publication through email. Academic performances of language students have been dwindling in recent times and interest has been low (Muhammad, 2014). This current trend has been asserted by Chief Examiners Report in annual English language examinations taken every year by students as West African Examination Council (WAEC) and National Examination Council (NECO) of Nigeria. This decline may be attributable to teachers' lack of improvement of their professional careers using modern technologies through training and workshop exposure. Njoku (2007) attributed this underperformance to the way and manner teachers teach English. English teachers might not have been exposed to the benefits that ICTs brings. Evidence shows that very few teachers have access to ICT facilities for instructional delivery. Some do not feel confident in exploiting ICT to support teaching activities in English language while some lack basic ICT knowledge (Etiubon, 2011; Nneji and Otaru, 2016).

ICT has shown itself as the most powerful tool to develop teachers' ability to query and support the teaching of language (Omoniyi and Quadri, 2013) and thus has become a necessity to develop learners' knowledge. With the increasing use of ICTs, there is need to persuade language teachers to evolve new ways of teaching, in revising and updating their knowledge using new technologies to enhance students' academic performance and compete globally. It is therefore necessary to train potential professional English language teachers using capacity building workshops

for ICTs skills development to enable them inculcate ICT knowledge to the learners in order to achieve sustainable development.

Skills

Developing skill entails hard work and interest, and language teachers need various ICT skills to acquaint themselves with emerging technologies. ICT skills are strategic for effective delivery of instructions and language teachers must spend time learning new technologies. Skills are expertise that guide decisions and work experience and inspire teachers to give focus to learners. In other words, skills are talents deliberately acquired through systematic and sustained effort to smoothly adapt to complex activities. Mbanefo (2015) defines skills as practical hands-on experience that transforms waste to wealth and knowledge to productive skills. Longe (2010) posits, that for this to be workable, teachers must possess ICTs knowledge skills to meet the needs of the learner. These skills include and not limited to the following:

(i) **Basic operation and concepts related to computer and technology:**

Teachers should be able to use a computer and various technological tools. This includes the use of software and basic operations such as booting a computer, opening software, saving, recording, creating, manipulating, publishing and distributing information.

(ii) **Personal and work related use of technology:**

Teachers should be able to use these tools in their classroom to improve their productivity and professional growth. They have acquired the basic skills that enable them to use the most advanced functions of publishing and communications software as well as audio and video equipment.

(iii) **Integrating technology into a basic standard curriculum:**

Teachers should be proficient in the use of a variety of software and communication tools. They now have the skills required to integrate the use of computers and technology to their students and the subject matter. Skills help a language teacher learn in more flexible ways and open up new opportunities with many options for global competitiveness. When a teacher acquires skills, it helps him to access lectures, coursework, tutorials and mentoring to have clear vision and plan teaching strategies accordingly. A thorough research using appropriate skills give a different outlook that can be brought into instructional delivery. Extracurricular experiences and achievements provide the most added values with skills input to broaden knowledge horizon (Broadley, Downie and Gibson, 2015).

Proper mobilization, awareness and training is needed by language teachers to acquire competence on skill development using capacity building workshops. As managers of educational resources, teachers need to properly guide, monitor, supervise and evaluate the entire teaching and learning process to avoid missing link in the institutional development (Oji, 2016) of learners.

The computer literacy curriculum should go beyond listing isolated skills such as knowing the components of a computer, writing a draft and producing a finished text using word processing, saving documents and other minor assignments (FRN, 2001), though these skills are important but they do not foster the transfer of subject matter from one learning situation to another. Links from the various skills are not seen by learners. Students should be able to connect links from one environment to the other. They must be able to see computer flexibility, creativity and for a specific purpose (Okafor, 2016).

Capacity Building Skills

Capacity building skills are skills acquired during organized training for language teachers (using workshops) in order to upgrade their knowledge on relevant teaching experiences. According to Acholonu, Opara and Dimson (2015), capacity building skills are skills exhibited during practical exposure to inculcate in the teacher the spirit of experimentation, manipulative skills, critical thinking, carefulness, perseverance and self-reliance. These capacity building skills improve teaching quality and develop specific problem techniques and strategies to live sustainably in a globally changing world. The skills focus on teachers finding answers to problems rather than the answer itself. Teachers are provided with ICT technologies that can make them think critically about ways and means of solving problems systematically. Capacity building skills enable language teachers to practice a task using specified aids such as ICTs in an enabling environment called a 'workshop'. This workshop experience develops in language teachers problem-solving, creativity, innovation and experimental skills needed to improve lesson note-taking and instructional delivery. Capacity building skills using ICTs is capable of changing the way language teachers teach and can support friendly approaches in

developing high order skills and logical reasoning among learners. Language teachers can build lots of activities into a lesson with skills developed during capacity building workshop to help students focus on their assigned tasks. It should be an ongoing effort to promote efficiency in teaching.

In spite of the derivable advantages and opportunities ICTs capacity building workshops provide for skills acquisition, it seems that few language teachers in show interest in its utilization. Many language teachers prefer to stick to old and obsolete methods of using notes to write lessons on the chalkboard instead of using interactive whiteboard and other forms of evolving ICTs to teach. They prefer to make calls and send text messages with smart-live-phones in their hands, but are unable to use those phones for multitasking academic purposes. Fareo (2013) noted that, Nigerian teachers are yet to be developed professionally on ICT skills, competencies and capabilities which are required for the effective implementation of ICT education. With this problem, Nigeria as a country cannot join the global competition of the information super-highway. This has posed great challenges to building professionalism in language teachers' areas of specialization. Capacity building workshops for ICT skill development may address these issues and motivate language teachers' interest.

Few attempts have been made to expose language teachers in public secondary schools to ICT capacity building workshops. One of such attempts is once-in-a-year gathering of language teachers for three days during holidays to improve their skills on use of ICTs. However, in recent times, economic instability and recession hardly make this possible. The Nigeria National Policy on ICT education (FRN, 2001) recognized the need for ICT integration in Nigerian schools and emphasized three major objectives to actualize this need. The objectives are: to empower youths with ICT skills to prepare them for global competitiveness; integrate ICT in mainstream education and training and establish multifaceted ICT institutions as centres of excellence on ICT. These are laudable objectives and could improve teachers' ICT skills.

Unfortunately, even with emerging ICT technologies, language teacher's skill development using capacity building workshop has not been duly implemented in public secondary schools. Well trained and competent language teachers equipped to teach basic computer skills are far too few with the challenge of inadequate ICT facilities. Language teachers lack ICT skills even after graduating from teacher training institutions. The prevailing situation leaves no one in doubt that capacity building of language teachers is the way to go not just for now but for the future.

Other skills needed by language teachers to promote meaningful integration of ICTs in instructional delivery include: creativity skills, pedagogical skills and problem-solving skills.

Creativity Skills

Creativity is the act of turning new and imaginative ideas into reality (Romanenko and Nikitina, 2015). This is crucial to teaching English language. It is the ability to generate multiple and unique solutions to a problem. Creativity is the combination of intellectual activity, knowledge, motivation, thinking styles, personality and environment (Olatoye, Akintunde and Ogunsanya, 2010). Creative teachers are motivated because they see the need for novel, varied and complex stimulations, the need to communicate values and ideas using skills that will solve problems. These problems are solved when teachers can provide unique alternative solutions that generate acceptable products. Creative teaching skills take full advantage of the availability of emerging ICTs and direct them in line with lesson preparation and potential capabilities of the learner. Obilo and Ibebuike (2015) posit that creativity in an individual is tested not only by the number of alternatives he can generate but by the uniqueness of those alternatives. Language teachers should employ creative skills using emerging ICTs to make the teaching of language enjoyable and satisfying.

Pedagogical Skills

Pedagogical skills are teaching skills teachers use and the activities, these skills generate to enable students to learn the knowledge and skills related to different subject areas. These skills are skills of knowledge presentation, curriculum knowledge, content knowledge, design principles in understanding of student's conceptions of the subject and learning implications. Pedagogy involves being able to convey knowledge and skills in ways that students can understand, remember and apply their lessons. Appropriate pedagogical skills provided by teachers using ICTs will make students take on much more active roles by engaging in discussions with their teachers and peers. A good teacher will present information in ways that actively engage the students in the materials that they are learning. Good pedagogy involves not only imparting information, but also providing opportunities to apply that information. In this regard, teachers are also able to make connections between the curriculum and the real world. Language teachers can best develop professional skills experimenting

with ICT tools for effective continuing professional development. This helps teachers and students' enquiry and problem-solving challenges.

Problem-Solving Skills

These are skills that help language teachers develop specific problem techniques and strategies to live sustainably in a globally changing world. The skill focuses on teachers finding answers to problems rather than the answer itself. Teachers are provided with ICTs that can make think about ways and means of solving problems systematically. Through careful planning and execution, good language teaching using ICTs should develop and foster traits such as rational thinking and cognitive ability in students during instructional delivery to test the extent of ICT skill acquisition of students for meaning and effective presentation of instructional content in an interactive way to encourage participation in the learning process.

Challenges facing capacity building of language teachers' using ICTs in public secondary schools

1. Teachers plan and execute curriculum content with well formulated objectives. Only the availability of well-trained teachers with sufficient skills on ICTs can deploy the right kind of instruction to learners. For the implementation of ICTs in secondary schools to be successful, capacity building workshops need to be functional during the long holidays annually to impart language teachers with ICT skills. Presently, there are insufficient ICT trained language teachers in public secondary schools to carry out elaborate teaching of objectives of ICT curriculum to achieve learning objectives. In spite of the compulsory nature of computer studies, researches reveal that ICT as a subject is not offered in most Nigerian public schools due to non-availability of qualified ICT teachers. Salau and Adebayo (2010) reported that over 85% of public and 72% of private primary school teachers do not possess the requisite qualification to handle the subject in schools where computer studies is offered. This has greatly reduced efficiency and creativity of language teachers. There is therefore, need to produce professionally trained ICTs language teachers for effective and meaningful language content delivery.

2. Short duration of exposure of language teachers to capacity building workshops

Capacity building workshops on ICTs is a one-stop-shop for language teachers. Inadequate funds are made available by the government to run the workshop as a three-day event in a whole year. At other times, funds are not available at all to organize the workshops. This hampers teachers' interest and does not augur well for ICTs skill development for language teachers' professionalism. DuToit (2015) opines that ICT training should not be too short in duration nor should it be delivered sporadically; rather, best results are obtained when teachers are exposed to training over an extended period of time, or if mentorship programmes and focus group discussions among teachers to exchange best practices are held regularly (UNESCO-US, 2009).

3. Non-availability of established capacity building workshop centres

Established capacity building workshops will promote practical activities among language teachers. They learn-by-doing and creatively demonstrate knowledge of skills on various tasks to sustain the effort of translating theory into practice. Training and retraining of language teachers using these demonstration centres will prepare teachers for expertise and skill-based knowledge in ICTs.

4. Non-collaboration/affiliation of school administrations with NGOs and International organizations

Strong collaboration with NGOs that are in the business of organizing capacity building workshops to expose teachers and intending teachers on the use of ICTs for best practices on language instructional delivery should be encouraged. Collaboration is needed to help strengthen institutions to promote flexible and deliberate policies that will train teachers to meet new challenges especially in acquiring and adopting appropriate attitudes and ICTs skills for meaningful learning to take place.

5. Non-inclusion of capacity building workshops in teacher-training programme

Computer studies are a compulsory core subject to be offered at the basic and senior secondary school levels, and teacher-training institutions should offer and provide facilities and implement computer studies as a school subject. This will go a long way in promoting skills development. Teacher training institutions hardly teach ICTs to emerging teachers and this has created a gap in teacher handling of its students in and out of school. Universities and Colleges of Education

in Nigeria should as a matter of urgency review and restructure its teacher-training curricula to accommodate this present need of ICT knowledge using capacity building workshops. This will aim at producing qualitative and well-equipped ICTs teachers to deliver creative quality language knowledge.

Suggestions for improving capacity building workshop on ICTs for language teachers

Developing quality assurance framework for capacity building of language teachers

With the phenomenal growth of ICTs utilization by different institutions and workplaces to address the problem of access to information and quality service; there is need to establish bodies to regulate inputs through capacity building workshops. In recognizing this, quality assurance tools and instruments have to be developed and should from time to time be reviewed, refined, modified and revised for long-term efficiency. Sherehu (2012) enumerated quality assurance focus to include the following:

- Programme design and development
- Course design and development
- Learning infrastructure and resources
- Learner assessment and evaluation
- Institutional planning and management

These tools could form inputs for a curriculum to be developed on capacity building workshops for language teachers during long holiday periods. Language teachers can now spend quality time to progressively practice on their own to acquire ICTs skills for appropriate instructional delivery.

Partnering with NGOs and private institutions:

Existing patterns of organizing capacity building workshops for language teachers using ICTs is not producing the desired results. Future demands for secondary and tertiary education is growing and new ways and efforts at fulfilling the aspirations of individuals and institutions are to be catered for. It may not be possible to cater for these needs using organized established systems as more people are gaining access to ICTs. This could be done with the agreement of school administrators and the Ministry of Education. Partnering with NGOs and private institutions would enable language teachers have free access to high quality courses designed for independent study and receive teacher support through a global network of volunteers and peer-support (<http://wikieducator.org/OER> <http://wikieducator.org/File:OERupdf>). This initiative will enable language teachers learn the use of ICTs with interest and acquire necessary skills for best practices on the use of ICTs for instructional delivery. For instance, using the SchoolNet Nigeria Project.

The SchoolNet Nigeria project is an example of private sector initiative. SchoolNet Nigeria is a non-profit organization created to address the use of ICT in Nigerian secondary schools with the support of several government ministries. It is a public-sector initiative driven towards mobilizing Nigeria's human and financial resources for the purpose of ICTs use in delivering instructions. SchoolNet creates learning communities of educators and learners to use ICT to enhance education by:

- Implementing, supporting and coordinating ICT development projects in education;
- Providing and supporting lower cost, scalable technology solutions and internet for schools;
- Providing support mechanisms for schools for technical infrastructure and connectivity.

SchoolNet Nigeria has, in collaboration with the mobile phone operator MTN, established ICT laboratories/cybercafés for four schools in four states in each of a four-phase project. Similarly, SchoolNet Nigeria, in collaboration with the computer company BusyNet, is setting up ICT laboratories/cybercafés in four schools in 12 states.

This initiative is applauded, but not enough to yield the dividends needed to boost language teachers' capacity building for ICTs skills development. The spread is far too narrow for an ever-growing population to meet language teachers' skill demands. Spreading this project in the 36 States of the Federation would foster greater cohesion among chemistry teachers.

Conclusion

There are numerous benefits of organizing capacity building workshops for language teachers for ICTs skill development. This will solve many challenges of underachievement among language students. Through established institutional frameworks this could be achievable in the shortest possible time with the collaboration of all schools, educational institutions, NGOs and private institutions.

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INFLUENCE OF EUROPEAN ACTIVITIES ON THE DEVELOPMENT OF NIGERIAN RURAL COMMUNITIES

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Abstract

This paper delved into a comprehensive exploration of the profound influence exerted by European activities on the development of Nigerian communities. Encompassing a multifaceted analysis, the study investigated the intricate dimensions of this influence, spanning the economic, political, cultural, social, educational, and environmental landscapes of the country. Through a meticulous examination of historical interactions, the research revealed that European activities played a pivotal role in shaping the trajectory of Nigerian communities. These activities contributed significantly to the economic advancement, political dynamics, cultural evolution, educational progress, and social structures of the Nigerian communities. However, this influence is not without its complexities, presenting intricate challenges. The paper highlighted the necessity of emphasizing sustainable resource management practices to mitigate the environmental degradation resulting from resource exploitation.

Keywords: Influence; European economic activities; socio-cultural activities; educational activities; environmental activities; rural communities

Introduction

European activities have unquestionably left a profound impact on Nigerian communities, shaping the economic, political, cultural, social, educational, and environmental landscapes of the country. From the early explorations of Portuguese sailors in the 15th century to subsequent colonization by various European powers, Nigeria's cultural heritage and traditional way of life have undergone transformation. This paper aims to explore and analyze the multifaceted influence of European activities on Nigerian communities, encompassing dimensions such as economics, politics, culture, society, education, and the environment. The economic impact of European activities on Nigerian communities has been profound. Smith (2022) stated that Europeans introduced economic systems that affected trade, labour, and natural resource management. Additionally, modern economic relationships, such as foreign investment and trade partnerships, underscore the European influence on Nigeria's economic trajectory. Furthermore, European colonial powers established administrative structures, political institutions, and governance systems that continue to influence Nigeria's political landscape. This influence is evident in Nigeria's legal system, administrative organization, and political ideologies (Johnson, 2021). In the realm of culture, Williams (2023) noted that the collision of European and Nigerian cultures resulted in a dynamic cultural exchange. European languages, religions, and customs have interwoven with traditional Nigerian practices, influencing art, literature, music, and religious beliefs.

Presently, Nigerian communities often adopt Western names, foods, and attire – all influenced by European activities. Additionally, the social fabric of Nigerian communities has been significantly influenced by European activities. This includes changes in social hierarchies, family structures, and gender roles due to the introduction of Western norms and values (Ahmed, 2023). European missionaries and colonial authorities also introduced formal education systems, leading to the proliferation of Western education in Nigeria. The legacy of this influence is still evident in the structure and content of the Nigerian educational system (Brown, 2022). The proliferation of schools

facilitated teaching and learning. Furthermore, Taylor (2021) observed that the exploitation of natural resources during the colonial period had a lasting impact on Nigeria's environment. European activities, including deforestation and mining, have affected the country's ecological balance and sustainability.

Therefore, this paper critically examines the influence of European activities on Nigerian communities, aiming to provide a comprehensive understanding of the complexities and implications of this historical relationship.

European Economic Activities on the Development of Nigerian Rural Communities

European economic activities played a significant role in shaping the development of Nigerian rural communities. Notable highlights include the establishment of cash crop plantations, which transformed traditional subsistence farming practices and introduced new economic models. European powers, such as Britain and Portugal, sought to exploit Nigeria's abundant natural resources, leading to the introduction of crops like cocoa, palm oil, and rubber. This shift towards commercial agriculture brought foreign investment, modern farming techniques, and expanded trade networks, impacting the socio-economic fabric of rural Nigerian communities. The impact can be observed through various channels, including trade relations and market access, infrastructural development, agricultural practices and technology transfer, natural resource exploitation, and environmental impact, as well as microfinance and access to capital (Ojo & Adejumo, 2021).

i. **Trade relations and market access:** European economic activities, particularly international trade and market access, have facilitated the exchange of goods and services between European countries and Nigerian rural communities. Improved trade relations have enabled Nigerian rural communities to access new markets for their products and introduced them to a wider range of European goods (Obayelu, 2020). This exchange has contributed to the economic diversification of rural areas, positively impacting livelihoods. Additionally, European demand for agricultural commodities has created market opportunities for Nigerian rural farmers. However, fluctuations in global commodity prices may affect these farmers' income (Adewale & Ajagbe, 2015). Trade with European countries has also allowed Nigerian rural communities to access a wide range of consumer goods, enhancing their quality of life and consumer choices (Okeke-Uzodike & Inegbedion, 2016).

ii. **Infrastructural development:** European investments in infrastructure projects have played a crucial role in the development of Nigerian rural communities. Projects such as roads, bridges, and electrification have improved transportation and connectivity, enabling easier access to markets and services (Oyelaran-Oyeyinka, 2018). These developments have enhanced rural mobility, fostered economic growth, and attracted further investments to the regions. Furthermore, Ajakaiye and Olomola (2016) noted that European economic activities, especially in the extraction of natural resources and cash crops, often led to the development of infrastructure such as roads, railways, and ports, which improved connectivity and facilitated the movement of goods to and from rural communities.

iii. **Agricultural practices and technology transfer:** European colonial powers promoted the cultivation of cash crops, such as cocoa, palm oil, rubber, and groundnuts, in Nigerian rural communities for export to Europe. This activity led to the development of agricultural infrastructure and markets in these areas (Akinola, 2015). European economic activities also introduced modern agricultural practices and technology to Nigerian rural communities. Initiatives like agricultural extension services and the transfer of advanced farming techniques contributed to improving agricultural productivity and overall food security in rural areas (Ojo, & Adejumo, 2021). These developments enabled rural communities to adopt more efficient and sustainable farming methods. Additionally, Ajakaiye and Olomola (2016) stated that European economic activities brought technological advancements to rural communities, including improved farming techniques, machinery, and processing methods, which contributed to increased productivity and economic growth.

iv. **Microfinance and access to capital:** European economic activities facilitated the introduction of microfinance institutions in Nigerian rural communities, providing access to capital for small-scale entrepreneurs and businesses (Yila, 2019). This access to finance empowered rural communities to engage in income-generating activities, foster entrepreneurship, and promote economic self-reliance. Adedokun (2019) noted that European organizations, including development agencies, supported the establishment and capacity-building of microfinance institutions (MFIs) in Nigeria. These MFIs operate at the grassroots level, providing financial services tailored to the needs of rural communities.

Access to microfinance enables rural entrepreneurs to start or expand their businesses, contributing to income generation and poverty reduction (Adelakun, 2019).

From the fore-goings, it is noted that European economic activities have played a multifaceted role in shaping Nigerian rural communities, spanning trade, infrastructure, agriculture, and finance. The impact of these activities has been far-reaching, influencing economic structures, technological advancements, and overall development in these communities.

European Political Activities on the Development of Nigerian Rural Communities

European political activities have played a significant role in shaping the development of Nigerian rural communities. These activities encompass governance and institutional strengthening, historical ties and colonial legacy, development aid and assistance, policy influence and diplomatic relations, as well as capacity building and technical assistance.

i. Governance and institutional strengthening: European political activities have emphasized governance and institutional strengthening in Nigeria to improve service delivery and promote transparency. This includes supporting local government capacity-building and public administration reforms (Department for International Development [DFID], 2019). Additionally, Ajayi and Crowder (2018) stated that European colonial powers, such as Britain, France, and Portugal, established administrative structures that shaped the governance of Nigerian rural communities during the colonial era. The introduction of centralized colonial rule led to the consolidation of power at the national level, affecting traditional governance systems and decision-making processes in rural areas.

ii. Historical ties and colonial legacy: European political activities have had a profound impact on Nigeria's rural development, primarily due to its colonial past. According to Osaghae and Suberu (2015), Nigeria was a British colony until it gained independence in 1960. During this period, European powers influenced policies, administrative structures, and economic activities, shaping the trajectory of rural communities. Adebayo and Adeleye (2020) observed that in the post-colonial period, European political activities influenced decentralization efforts in Nigeria. European donors and development agencies advocated for decentralization policies to empower local governments and promote community participation in rural development initiatives. These efforts sought to strengthen rural communities' capacity for self-governance and development.

iii. Development aid and assistance: European countries, along with international organizations such as the European Union (EU), have actively provided development aid and assistance to Nigeria to support rural development. These efforts aim to address challenges in poverty, education, healthcare, agriculture, and infrastructure in rural areas (European Commission, 2018). Furthermore, European countries have been major donors of foreign aid to Nigeria, including projects focused on rural development. Foreign aid has contributed to infrastructure development, healthcare, education, and agriculture in rural communities (Idowu, 2021). However, the impact of aid has varied, and there have been challenges in ensuring effective and sustainable outcomes.

iv. Policy influence and diplomatic relations: European political activities also influence policy decisions and diplomatic relations in Nigeria, which can impact rural communities. Trade agreements, development partnerships, and foreign aid policies are areas where European influence shapes the direction of rural development in Nigeria (Thamban, & Akinola, 2016). Furthermore, Sanni (2019) stated that European countries engage in diplomatic relations with Nigeria, which have implications for rural communities. Political ties influence economic partnerships, trade agreements, and development initiatives targeting rural areas. Bilateral relations can facilitate the exchange of knowledge, technology, and expertise for rural development.

v. Capacity building and technical assistance: European political activities have also focused on providing capacity building and technical assistance to Nigerian rural communities. This includes sharing best practices, transferring knowledge, and implementing training programs to empower local communities to effectively address their development challenges (European Union Training Mission in Nigeria, 2021). This capacity building has also extended to conflict areas. Lawal and Adeniyi (2018) pointed out that European political activities have also affected rural communities in conflict-affected regions. European governments and organizations have been involved in capacity building and technical assistance to conflict areas in the form of peacebuilding. These activities have had varying degrees of success in addressing the root causes of conflicts and promoting peace.

From the foregoing, European political activities have played a pivotal role in influencing the development of Nigerian rural communities. Through governance support, historical ties, aid, policy

influence, and capacity building, European involvement has left a lasting imprint on the social, economic, and political aspects of rural areas in Nigeria.

European Socio-Cultural Activities on the Development of Nigerian Rural Communities

European socio-cultural activities have significantly impacted the development of Nigerian rural communities, influencing various aspects of socio-cultural life and community dynamics. The introduction of European art, music, literature, and performing arts during the colonial and post-colonial periods has contributed to the vibrant socio-cultural landscape of rural areas (Omotoso, & Egonwa, 2021). This socio-cultural exchange has fostered creativity and artistic expressions among local communities. Additionally, Aladejebi and Osifeko (2021) stated that European socio-cultural activities, including cultural tourism initiatives, have contributed to the preservation of Nigerian rural heritage and historical sites. These activities have generated economic opportunities and fostered pride in local cultural heritage. These activities are discussed under the following sub-headings: social welfare initiatives, healthcare interventions, community development projects, social norms and values, women empowerment, and gender equality.

i. **Social welfare initiatives:** European socio-cultural activities have introduced social welfare initiatives in Nigerian rural communities. These programs aim to alleviate poverty, provide support to vulnerable groups, and enhance social protection (Olaopa, & Jegede, 2020). Such interventions have contributed to improving the well-being of rural residents, particularly in areas with limited access to resources and opportunities. Moreover, European social welfare initiatives have contributed to empowering women and promoting gender equality in Nigerian communities. Support for women's entrepreneurship, access to financial resources, and initiatives against gender-based violence have been part of these efforts (European Institute for Gender Equality, 2021). Also, European social welfare initiatives have invested in infrastructure projects in Nigerian rural communities. These projects include water supply, sanitation facilities, and renewable energy sources, all of which contribute to improved living conditions and community development (European Investment Bank, 2021).

ii. **Healthcare interventions:** European socio-cultural activities have played a crucial role in improving healthcare access and services in Nigerian rural communities. The introduction of modern medical practices, healthcare facilities, and vaccination campaigns has contributed to reducing morbidity and mortality rates (Eze, & Akunne, 2021). These interventions have also raised awareness of health issues and promoted healthier lifestyles in rural areas. European social welfare initiatives have also played a role in enhancing healthcare services in Nigerian communities. For example, the European Union has supported projects aimed at improving maternal and child health, combating diseases like malaria, and strengthening healthcare infrastructure (European Union, 2021).

iii. **Community development projects:** European social activities have supported community development projects in Nigerian rural areas. These projects include initiatives in infrastructure development, water supply, sanitation, and agriculture (Eziaku, & Ojua, 2021). Community-driven development approaches, often supported by European aid agencies, have empowered rural communities to take ownership of their development process. Socio-cultural activities of Europeans have also led to the development of media such as television, radio, and the internet, exposing rural communities to global trends, ideas, and lifestyles (Ajibola, 2021). This exposure has influenced social attitudes, aspirations, and perceptions of development. Moreover, the adoption of a Eurocentric educational curriculum in Nigerian rural schools has implications for the transmission of knowledge systems (Odewale, 2022). European socio-cultural activities have influenced the knowledge prioritized in the educational system, potentially overshadowing indigenous knowledge and practices.

iv. **Social norms and values:** European social activities have influenced social norms and values in Nigerian rural communities. Cultural exchanges and exposure to European norms through education and media have led to changes in family structures, gender roles, and social behaviours (Adegbesan, & Afolabi, 2022). These shifts have implications for social cohesion and community dynamics. Additionally, the introduction of European art, music, literature, and performing arts during the colonial and post-colonial periods has contributed to the vibrant socio-cultural landscape of rural areas (Omotoso, & Egonwa, 2021). This socio-cultural exchange has fostered creativity and artistic expressions among local communities.

v. **Women empowerment and gender equality:** European socio-cultural activities have supported women empowerment and gender equality initiatives in Nigerian rural areas. Efforts to promote women's participation in decision-making, education, and income-generating activities have

contributed to enhancing the status and agency of women in rural communities (Ojomo, & Ayodeji, 2023). This is a result of religious formal education introduced through European missionaries. European socio-cultural activities, particularly through missionary activities, played a significant role in the establishment of formal education in Nigerian rural areas (Ekwutosi, & Igwe, 2020). European languages were introduced alongside indigenous languages, leading to linguistic diversity. The adoption of European languages has both positive and negative implications for communication and cultural identity. Furthermore, European socio-cultural activities, predominantly through missionary efforts, introduced Christianity to Nigerian rural communities (Odo, & Ugwuoke, 2020). This socio-cultural influence has reshaped religious practices and beliefs, leading to a blend of indigenous beliefs with Christian traditions. Such transformations have impacted social-cultural norms and values. All these have contributed to women empowerment and gender equality.

In conclusion, European socio-cultural activities played a pivotal role in influencing the development of Nigerian rural communities. Through social welfare initiatives, healthcare interventions, community development projects, and changes in social norms and values, European involvement has left a profound mark on the social, cultural, and gender dynamics of rural areas in Nigeria.

European Educational Activities on the Development of Nigerian Rural Communities

European educational activities targeted at the development of Nigerian rural communities aim to improve access to quality education, enhance educational infrastructure, and promote skill development among the local population. This includes initiatives supported by European governments, international organizations, and non-governmental organizations (NGOs). One key focus area is the provision of basic education in rural communities. European organizations collaborate with Nigerian authorities to establish and support schools in rural areas, thereby improving access to education for children who would otherwise not have the opportunity to attend school. These initiatives often involve building infrastructure, providing learning materials, training teachers, and implementing educational programmes that centre on the needs of the rural communities. European organizations work on enhancing the capacity of teachers through training programmes and workshops, helping them to develop teaching methodologies suitable for rural settings. This includes promoting interactive and learner-centred approaches to teaching, along with the integration of technology.

The European educational activities that have contributed to the development of Nigerian rural communities are discussed under the following sub-headings: introduction of formal education systems, teacher training and capacity building, introduction of technical and vocational education, scholarships and exchange programs, and ICT and digital literacy initiatives.

i. Introduction of formal education systems: Aina (2019) stated that European educational activities introduced formal schooling to Nigerian rural communities, leading to the establishment of primary and secondary schools. This development expanded educational opportunities, enabling rural children to access formal education and acquire basic literacy and numeracy skills. European-style curricula were introduced, incorporating subjects like mathematics, science, and language arts (Adedeji, 2021). This curriculum diversification broadened students' knowledge base and prepared them for future opportunities. It also promoted female education in Nigerian rural communities. Efforts to encourage gender parity in education have resulted in increased school enrolment for girls and improved educational outcomes (Okeke, & Anigbogu, 2023).

ii. Teacher training and capacity building: European educational activities brought teacher training and capacity-building initiatives to Nigerian rural communities (Adedayo, & Ayodele, 2022). Teacher education programmes equipped educators with pedagogical skills, improving the quality of instruction in rural schools. Curriculum development in Nigerian rural schools is another influence of European educational activities. European educational activities included teacher training and capacity-building programmes. These initiatives aim to enhance the quality of education by providing teachers with professional development opportunities and modern teaching methods (UNESCO, 2021).

iii. Introduction of technical and vocational education: European educational activities also emphasized technical and vocational education and training (TVET) in Nigerian rural areas. TVET programmes aimed to equip students with practical skills relevant to local industries and job markets (Oloko, & Babatunde, 2021). European-supported vocational and technical education programmes have been established in Nigerian rural communities. These programmes offer practical skills training

to equip students with employable skills, thereby contributing to local economic development (Federal Ministry of Education, 2021). European educational activities often involve community engagement and local empowerment. These initiatives aim to involve parents, community leaders, and local organizations in education planning and decision-making, ensuring that educational efforts are tailored to the specific needs of rural communities (United Nations, 2021).

iv. **Scholarships and exchange programmes:** European countries, such as the United Kingdom, France, and Germany, have offered scholarships and exchange programmes for Nigerian students from rural areas. These initiatives provide opportunities for students to pursue higher education and gain exposure to different educational systems and cultures (British Council of Nigeria, 2021). It also facilitated access to higher education for students from Nigerian rural communities. Scholarships, exchange programmes, and collaboration with European universities have expanded opportunities for higher education (Ajayi, 2022).

v. **Information and communication technology (ICT) and Digital literacy initiatives (DLIs):** European organizations have promoted digital literacy initiatives (DLIs) and the use of information and communication technology (ICT) in Nigerian rural schools. These initiatives help students acquire essential digital skills for the modern job market (European Union Digital4Development, 2021). Also, in recent times, European educational activities have supported e-learning and technology integration in rural schools. Initiatives such as the provision of computers and internet connectivity have enhanced access to digital learning resources (Eke, & Ezeudu, 2020). Therefore, European educational activities in Nigeria have contributed significantly to rural community development through the building of classroom blocks, awarding scholarships to indigent students, and ensuring that lessons are taught with qualified teachers.

Therefore, European educational activities have played a crucial role in shaping the development of Nigerian rural communities by improving access to education, enhancing teaching methodologies, promoting technical and vocational skills, providing scholarships, and fostering digital literacy. These efforts have contributed to empowering individuals and communities, paving the way for socio-economic advancement in rural areas.

European Activities on Environmental Development in Nigerian Rural Communities

European activities on environmental development showed that Europe played a crucial role in addressing environmental challenges and promoting sustainable practices in Nigerian rural communities. The activities of the Europeans that have influenced the environmental development of rural communities in Nigeria include infrastructure development, extraction of natural resources, environmental regulation, and environmental education.

i. **Infrastructure development:** European activities led to infrastructure development projects in rural areas, such as road construction and agricultural expansion (Olujimi, & Abiodun, 2022). There was emphasis on sustainable water resource management to address water scarcity and ensure access to clean water (European Union, 2021). Projects supported by European institutions aim to improve water infrastructure, establish water conservation practices, and promote efficient water use in rural areas. European-supported projects also address waste management and sanitation challenges in Nigerian rural communities. These initiatives focus on promoting proper waste disposal, building sanitation facilities, and raising awareness about hygiene practices (European Commission, 2018). European environmental activities include afforestation and reforestation programmes to combat deforestation and promote biodiversity conservation. These initiatives involve tree planting campaigns and forest management strategies to restore degraded ecosystems in rural communities (United Nations Development Programme [UNDP], 2021).

ii. **Extraction of natural resources:** European activities, particularly during the colonial era and in contemporary times, have involved the extraction of Nigeria's natural resources in rural areas (Adeniran, 2019). The exploitation of resources such as oil, timber, and minerals have contributed to conservation efforts in Nigerian rural communities. Conservation projects supported by European organizations aimed to protect wildlife and natural habitats, promoting sustainable environmental practices (Adekanmbi, & Akinbami, 2021).

iii. **Environmental regulation:** European engagement in environmental governance has influenced the establishment of environmental regulations and standards in Nigeria. European models and practices were incorporated into environmental policies aimed at mitigating environmental degradation (Nwankwo, & Nwachukwu, 2021). Their activities played a role in raising awareness about climate change and promoting renewable energy initiatives in Nigerian rural communities.

Efforts to address climate change impacts included projects focused on solar energy, sustainable agriculture, and environmental education (Okeke, & Okafor, 2023). Moreover, European activities in Nigerian rural communities also focus on climate change adaptation. These initiatives helped communities build resilience to the impacts of climate change through strategies such as crop diversification, soil conservation, and disaster preparedness (Climate-KIC, 2021).

iv. **Environmental education:** European involvement also contributed to environmental education and awareness campaigns in Nigerian rural areas. European-funded projects aimed to educate communities about sustainable practices and the importance of conservation (Akintola, & Odewole, 2020). Additionally, European organizations contribute to environmental education and awareness in Nigerian rural communities through workshops, training programmes, and campaigns that promote eco-friendly practices, conservation of natural resources, and sustainable agriculture (Global Environmental Facility, 2021).

Therefore, European activities had a multifaceted impact on the environmental development of Nigerian rural communities. While some initiatives contributed to environmental challenges, others focused on conservation, regulation, and education, all aimed at promoting a more sustainable and ecologically balanced future for these communities.

Challenges of European Activities on Nigerian Communities

European activities have had both positive and negative impacts on the development of Nigerian rural communities. While some initiatives have contributed to conservation and sustainable practices, others have resulted in environmental degradation. As Nigeria continues to address environmental challenges, it is essential to strike a balance between development goals and environmental preservation. However, European activities on Nigerian communities, while aiming to contribute to development and improvement, encountered various challenges. Some of these challenges are discussed below:

i. **Natural resource exploitation and environmental impact:** While European economic activities brought investment in natural resource exploitation, such as mining and oil extraction, they also raised environmental concerns in Nigerian rural communities. The extraction of resources often resulted in environmental degradation, leading to challenges related to land degradation, pollution, and loss of biodiversity (Adeniran, 2018). Sustainable resource management practices are essential to address these challenges and ensure the long-term well-being of rural communities. Additionally, European economic activities, especially during the colonial period, often involved the exploitation of natural resources and labour from Nigerian rural communities, leading to social and economic inequalities (Ajakaiye, & Olomola, 2016).

ii. **Environmental degradation:** The extraction of natural resources and the expansion of cash crop cultivation led to environmental degradation, deforestation, and soil degradation, adversely affecting the livelihoods of rural communities (Ajakaiye, & Olomola, 2016). Moreover, inadequate infrastructure and logistical constraints in Nigerian communities can pose challenges to European activities. Poor road networks, lack of electricity, and limited access to remote areas can hinder the smooth execution of projects (Ojedokun et al., 2017).

iii. **Dependency on cash crops:** The focus on cash crops for export made rural communities vulnerable to fluctuations in global commodity prices, hindering the diversification of local economies and leading to economic instability (Ajakaiye, & Olomola, 2016).

iv. **Social disruptions:** One of the challenges that European activities faced in Nigerian communities is the need for cultural sensitivity and understanding. Cultural differences can impact the effectiveness of projects and initiatives, as well as the reception from local communities (Kumuyi, & Adebisi, 2020). European economic activities disrupted traditional social structures and cultural practices in rural communities, leading to social tensions and changes in community dynamics (Falola, 2018).

v. **Political instability:** Nigeria's political instability and governance challenges affect the continuity and success of European activities. Changes in government, corruption, and bureaucracy may impact project implementation and outcomes (Baker, & Schelling, 2021).

In conclusion, European activities in Nigerian rural communities brought both benefits and challenges. While contributing to development, they have also encountered obstacles related to environmental impact, social disruptions, and political instability. Addressing these challenges requires a holistic and culturally sensitive approach to ensure that European activities truly contributed to the well-being and sustainable development of Nigerian rural communities.

Conclusion

The influence of European activities on Nigerian rural communities has been extensive and diverse, encompassing economic, political, cultural, social, educational, and environmental aspects. European engagements have left indelible imprints on the development trajectory of rural areas in Nigeria, with both positive contributions and challenges. Economically, European activities have fostered trade relations, infrastructure development, and access to capital, promoting economic growth and diversification of livelihoods in rural communities. However, the historical exploitation of natural resources and trade imbalances also posed environmental and economic challenges.

Politically, European colonial legacies impacted governance structures and institutional frameworks, shaping the political landscape in rural communities. Post-colonial relations further influenced decentralization efforts and diplomatic engagements, contributing to social inclusion and stability. Culturally, European activities have introduced Christianity and Western education, leading to a fusion of European and indigenous cultural elements. While this cultural exchange has enriched Nigeria's diversity, it has also raised questions about cultural preservation and identity. Socially, European interventions have introduced healthcare systems, social welfare initiatives, and support services, improving the well-being and social mobility of rural populations. Nevertheless, challenges such as gender dynamics and migration patterns require ongoing attention.

Educationally, European contributions led to the establishment of formal education, infrastructure development, and vocational training programmes, enhancing educational access and opportunities in rural areas. Yet, the need for curriculum relevance and inclusivity persists. Environmentally, European activities drove natural resource exploitation, infrastructure development, and conservation efforts. While conservation initiatives promoted sustainability, the consequences of resource extraction and deforestation necessitate sustainable environmental management.

In navigating the complexities of European activities' influence, Nigerian rural communities must strike a delicate balance between harnessing the benefits and addressing the challenges. By embracing the positive aspects and learning from historical mistakes, these communities can chart a path towards holistic development that respects their unique cultural identity, preserves their environment, and empowers their socio-economic progress.

Suggestions and the Way Forward

Based on the multifaceted influence of European activities on Nigerian rural communities, the following suggestions are proposed to guide future policies and interventions:

1. Emphasis needs to be placed on sustainable resource management practices to address environmental degradation caused by natural resource exploitation. There is need to implement strict regulations and monitoring mechanisms to ensure responsible extraction and usage of resources in rural areas.
2. Culturally relevant educational curricula that reflect the unique needs and aspirations of rural communities need to be developed. There is need to invest in teacher training programmes to enhance the quality of education and equip educators with skills to effectively address local challenges.
3. Community-based conservation efforts that empower rural residents to protect their natural habitats and wildlife need to be encouraged. Therefore, there is need to support local initiatives and traditional knowledge that contribute to biodiversity conservation and sustainable land use.
4. Social welfare initiatives and healthcare services in rural communities need to be promoted to improve the overall well-being of residents. Hence, there is need to ensure accessibility and quality of healthcare facilities, with a focus on preventive measures and disease management.
5. Efforts need to be made to promote the preservation of indigenous cultures and traditions while embracing positive aspects of cultural exchange. Also, there should be need to encourage cultural festivals and heritage centres to celebrate and safeguard rural communities' cultural identities.
6. There is need to advocate for gender equality and women's empowerment in rural communities by addressing societal norms that hinder women's participation in education, economic activities, and decision-making.

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**ASSESSING FACTORS ASSOCIATED WITH SUBSTANCE ABUSE
AMONG YOUTHS: EMPIRICAL EVIDENCE IN PLATEAU STATE,
NIGERIA**

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Abstract

The main purpose of the study was to examine the factors associated with substance abuse among youths in Pankshin Local Government Area, Plateau State. To achieve the purpose of the study, four specific objectives with corresponding research questions were postulated. The study was conducted using a descriptive survey research design. A Simple random sampling procedure was used to select 66 youths from six wards out of the twelve existing wards of Pankshin LGA, from a target population of 38,337 youths within the age bracket of 15-35 years in Pankshin LGA. The required information was gathered using the questionnaire. The data generated was analysed using frequency and percentages with SPSS (version 21). The findings of the study showed that youths who are within the age group of 12-21 years are the majority to be associated with substance abuse. Males are more associated with substance abuse than their female counterparts. Those who are single are more associated with substance abuse than those who are married and those who are divorced. Those with secondary education are more associated with substance abuse. Majority of the respondents which are Christians are more associated with substance abuse. Majority of youths consume alcohol more than other substances. Majority of the respondents are students compared to other occupations. In line with the findings, it was recommended above all that the federal government in collaboration with National Drug Law Enforcement Agency (NDLEA) should ensure that the abuse of substances is regulated among the Nigerian population.

Keywords: Substance abuse, Associated Factors, Youths, Assessment.

Introduction

Substance abuse causes a significant burden to individuals and societies throughout the world. Substance abuse is a major health problem to many countries in the world. The World Health Organization (2019) reported that over 200 million people abuse drugs. This figure is growing each day, because modern method of transportation and communication have increased and facilitated the distribution of these drugs. Recent studies indicated that the burden of different diseases comes from the use of substances (Fagbe, 2019; Idowu, Arema & Olumide, 2018; WHO, 2015). The WHO (2019) reported that tobacco accounted for 4.1 per cent, alcohol 4 per cent and illicit drugs 0.8 per cent of the burden of disease in 2010. Much of the burden attributable to substance use and dependence is the result of a wide variety of health and social problems. According to Achulu (2014), it is estimated that 9 percent of the global population aged 12 or older are classified with dependence on psychoactive substances such as alcohol and hard drugs. A study has shown that the highest risk of substances abuse in adolescents is in their late teenage and early twenties. It is estimated that over 3 million adolescent are affected with problems associated with drugs abuse worldwide (NAFDAC, 2020). The author also added that about 230 million people, or 5 percent of the world's adult population, are estimated to have used an illegal drug at least once in life. Data from the World Health Organization (2019) show large-scale seizures of cocaine, heroin, cannabis and amphetamine-type stimulants in different parts of the world. Nigeria has accounted for many records of substance abuse among African countries.

In Nigeria, the situation regarding substance abuse, particularly among adolescents, may not be too different, since the country is still developing and its sub-settings such as Ajaokuta, receiving the greatest impact. According to Abiodun et al. (2010), substance abuse among youth in both rural and urban areas is common. Ajaokuta is known for its unique features in rapid development and

adoption of innovations including technologies, lifestyle, modeling and habits. Based on the researcher's closer observation, there is an indication that the prevailing case of substance abuse is common in the country including Ajaokuta region. However, the consequences of increased cases of substance abuse and misuse by individuals especially adolescents are felt on the poor economic and social development of the nation, resulting in increased rates of crime, instability, insecurity, gross indiscipline, corruption, teenage pregnancy and wide spread of sexually transmitted diseases such as HIV and AIDS. In Nigeria, according to Fagbe (2015), the National Drug Law Enforcement Agency (NDLEA) report indicated that adolescents and youths between 15-30 years constitute the high risk group with female getting more involved than they use to. Another group of abusers are the so called young executives, prostitutes, drivers, conductors, graduates, Civil Servants and artistes. Ajayi and Somefum (2020) asserted that within the last decades, consumption of hard drugs has risen drastically in Nigeria, where heroin and cocaine are now abused along with traditional drugs such as alcohol, cannabis, amphetamines and other dependence producing drugs and substances. This shows that substance abuse has taken another dimension that needs urgent attention of public health experts globally.

Substance abuse also known as drug abuse is viewed by different authorities in various forms. Neeraja (2011) defined substance abuse as the dependence on a drug or other chemical substances leading to the effects that are detrimental to the individual's physical and mental health or the welfare of others. For the purpose of this study, substance abuse will be seen as the maladaptive use of one or more drugs with the intention to alter the way one feels, thinks or behaves which results in physical and or emotional harm to the person. Friends and family may be among the first to recognize the signs of substance abuse. Early recognition increases the chances for successful treatment. Signs to watch for include the following; giving up past activities such as sports, homework or hanging out with new friends and declining grades in school (UNODC, 2018). Use of psychoactive substances is inimical to the survival and effective functioning of human societies (Rochie & Roger, 2018). From different literature reviewed, there is a significant number of untimely deaths and accident linked to the activities of persons under the influence of one psychoactive drug or the other (Ibiyemi, 2020; Shelly, 2010). This shows that the abuse of drugs and substances increases both morbidity and mortality rates.

Substances abuse is one of the social health problems among the bankrupt, decadent and wasted generation that must be realized and collectively salvaged together in order to prevent the total degeneration and loss of our social values and ideals. Substance abuse among adolescents has been a major threat to the peaceful co-existence of all and sundry in Nigeria (Allen, 2020; Osman, 2016). The parental background of a child can also be affected by the over dependence rate on drug abuse. One of the various family problems like broken homes (divorce), polygamous family, abject poverty, cultural influence parental neglect, lack of parental affection and responsibility. A father who is drug addict may greatly influence and be carried away by any of his children, like father like son. Factors such as demographic factors (age, gender, levels of education, religion), social factors (peer-influence) and economic factors (employment status) are capable of influencing youth's association with substance abuse.

Age is a demographic factor that tends to be implicated in substance abuse among youths. Available epidemiological surveys showed that abuse of various types, substances especially of cannabis and stimulants in western Nigeria involved youths (Akande, Adisa & Ilesamni, 2019; Odejide & Sanda, 2016). Moreover, reports on substance abuse experimentation have shown that youths of 18-35 years of age have substance abused and experimented with one drug or another in the north (Ahmed, 2011; Nevadomsky, 2011). Furthermore, the age for cannabis, heroin and cocaine misuse and abuse in Lagos was 18 years and above (Osman, 2016; Omigbodun & Babalola, 2014). The above studies implicated various age groups in different places; however, the difference in age variations of substance abuse may be the same among students in Pankshin LGA, which this study aims to determine. Although various age groups have been implicated, the ages that have been implicated cannot be devoid of gender.

Gender is seen as a factor that appears to influence substance abuse and use of various types of drugs. National Survey on Drug Use and Health (WHO, 2019; NSDUH, 2016) in their study found that the lifetime nonmedical use of most specific pain relievers was significantly more prevalent among males than females. They further noted that there was a higher prevalence among males than females in specific pain relievers' misused. For instance, the misuse of codeine products was reported by 10.2 per cent of males compared with 7.6 per cent of females. However, NSDUH (2016) reported inhalant misuse and abuse by youths aged 18 – 22 years and found males and females being equal in the misuse and abuse of such substances. Fagbe (2019) and Domingo and Marquez (2009) equally revealed that males are more likely to abuse alcohol, drugs and tobacco than females. Ibiyemi (2020)

and Corrado et al. (2010) opined that the tendency to use and/or abuse drug increases with age. Although there was inconsistency in the substance abuse by youths as reported, the actual situation of substances used by gender among youths in Pankshin North LGA will be verified by this study.

Level of education also seems to be a factor that was implicated in substance abuse among youths. Surveys of both in and out-of-school students revealed that substance abuse was a common problem especially for socially acceptable substances like alcohol and cigarettes. Studies have shown that there was increasing use of substance among the youths in Nigeria (Allen, 2020; Abiodun, Adelekan, Ogunremi, Oni & Obanya, 2014). The study anchored on health belief model (HBM), propounded by Godfrey Hockbaum, Stephen Kegeles, Howard Leventhal and Urwin Rosenstock in 1950. The key assumption of the model is on the prevention of diseases rather than its treatment and focuses on six key concept which include: perceived susceptibility which entails in-school adolescents belief that they can easily abuse substance; perceived severity which is the believe that the consequences of abusing substance are significant enough and they try to avoid it; perceived benefit which is the believe that the high rate of substance abuse would jeopardize their academic goals, life ambition and health; perceived barriers which is the identification of obvious barriers to avoiding substance abuse; cues to action which is the reception of sensitization in the form of health education or newsletters and; self-efficacy which is the reception of quality information on the positive outcome of avoiding substance abuse. The model provides a framework for motivating individuals to take positive actions especially on substance abuse. This model was explored in examining the factors associated with substance abuse among youths in Pankshin LGA, Plateau State.

Pankshin is a Local Government Area in Plateau State, Nigeria. Its headquarters are in the town of Pankshin. It has an area of 1,524 km² and a population of 191,685 at the 2006 census. Pankshin is popularly known for its trade hub as most of the people are farmers growing a vast range of food crops such as millet, guinea corn, maize, tomatoes, rice, onions, cabbage, carrot and collections of fruits. Mondays in Pankshin is specifically for trading, buying and selling, hence the name "Monday market" as traders, merchants and people in the environs and as far as away as Bauchi come to buy and sell. This study was carried out in this area because the North of Nigeria has been known with the highest life time prevalence of substance use. Alcohol is still the most used drugs. Newer drugs such as codeine syrup and tramadol have displayed Cigarette and bcannabis down to the fourth and fifth position. More women are now engaging in substance use and prefer odorless substance to alcohol and Cigarettes (Health Wise and Knowledge Base, 2014). The occurrence of substance abuse among youths in many parts of the world including Pankshin LGA, Plateau State, where the current study was conducted had been a thing of great concern. This concern was due to lack of documented data especially on youths' abuse in the area which necessitated the researcher to carry out this study.

Ideally, substances are not meant to be used or administered without prescription, and are not to be misused or abused. Drug were manufactured in order to treat some ailment and not meant for indiscriminate use. In an attempt to eradicate substance abuse among individuals particularly the youths, the federal government of Nigeria established a body known as National Drug Law Enforcement Agency with the major function of apprehending substance abusers. Substances abuse has a prolong effect on the individual and the socio economic dynamism of the society, though, several effort should be made by various government bodies to curtail this scourge.

Regrettably, the above notable effort by the federal government has not successfully achieved it expected targets. This has resulted to numerous academic problems especially in the current study location. The increased cases of substance abuse are evidenced on the high rates of school dropouts, rapes, sexual abuse, bulling and indiscipline. These qualities are never good attributes of youths in a country of this kind, popularity known as the giant of Africa. Substances abuse has cause death and disaster, misuse is no more the problem of the developed world only the home however is where drugs do the most damage like causing dysfunctional family life style.

The above worrisome situation motivated the researchers to critically look into the situation of substance abuse in Pankshin LGA, Plateau State. Therefore, the present study tends to examine the factors (age, sex, gender and levels of education) associated with substance abuse among youths in Pankshin LGA, Plateau State. This is the main focus of the present study.

Methods

In order to accomplish the purpose of this study, the descriptive survey research design was employed. The population for this study consists of youths in Pankshin LGA. There are twelve wards in Pankshin LGA, Plateau State with a total population of one hundred and ninety-one thousand, six hundred and eighty-five youths (191,685) (National Population Commission-NPC, 2006). The target

population includes the youths within the age bracket of 15-35 years in Pankshin LGA, with a population of 38,337. The sample for this study consists of three hundred and ninety-six (396) youths 15-35 years. This was calculated using Nwanna (2001) rule of thumb stated that, when the population of the study is more than twenty thousand (20,000), 1-10 per cent should be used as sample size. The sampling procedure for this study was a simple random sampling technique, to select 66 youths from six wards out of the twelve existing wards of Pankshin LGA, Plateau State. Data were collected using a researcher-structured questionnaire titled “Factors Associated with Substance Abuse Questionnaire (FASAQ)”. The face validity of the instrument was established by three experts, two came from the Department of Human Kinetics and Health Education, and one from the Department of Science Education (Measurement and Evaluation), all from University of Nigeria, Nsukka. In order to determine the internal consistency of the instrument, product moment correlation coefficient was used. Reliability index of .61 was obtained, which was in line as specified Okpala and Ogbazi (2012). The data generated was analyzed using frequency and percentages.

Results

Table 1: Percentage Analysis of the Demographic Factors (Age) Associated with Substance Abuse in Pankshin Local Government Area, Plateau State (n= 380)

S/N	Age	F	%
1.	12-21 years	171	45
2.	22-31 years	142	37
3.	32 years and above	67	18
	Overall	380	100

Data in Table 1 shows that youths who are within the age group of 12-21 years are the majority to be associated with substance abuse (45%). The table further revealed that (37%) are within the age group of 22-31 years while (18%) are within the age group of 32 years and above.

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Table 2: Percentage Analysis of the Demographic Factors (Gender) Associated with Substance Abuse in Pankshin Local Government Area, Plateau State (n= 380)

S/N	Sex	F	%
1.	Male	194	51
2.	Female	186	49
	Overall	380	100

Data in Table 2 shows that males (51%) are more associated with substance abuse than their female counterparts (49%). Therefore, this indicates that majority of the respondents were males. This implies that the male populations are more associated with substance abuse among youths in Pankshin local government, Plateau State.

Table 3: Percentage Analysis of the Demographic Factors (Level of Education) Associated with Substance Abuse in Pankshin Local Government Area, Plateau State (n= 380)

S/N	Educational qualification	F	%
1.	No education	20	5
2.	Primary education	42	11
3.	Secondary education	162	43
4.	Tertiary education	156	41
	Overall	380	100

Data in Table 3 shows that those with secondary education (43%) are more associated with substance abuse than those with tertiary education (41%), those with primary education (11%) and those with no education (5%).

Table 4: Percentage Analysis of the Substances that are Commonly Abused in PankshinLocal Government Area, Plateau State (n= 380)

S/N	Substance abuse	Yes	
		F	%
1.	Alcohol	62	16
2.	Tramadol	30	8
3.	Marijuana (Igbo, weed)	11	3
4.	Valium	0	0
5.	Sukur die	2	0.5
6.	Glue (solution)	3	0.8
7.	Codeine (Benelyn cough syrup)	30	8
8.	Tobacco (such as snuff, cigarette)	33	9
9.	Cocaine	0	0
10.	Pentoxocine	0	0
11.	Non substances abuse	209	55
	Overall	380	100

Data in Table 4 shows that majority of youths consume alcohol than other substances (16%). The table further showed that (9%) of smoke cigarettes, (8%) consume codeine syrup, (3%) smoke marijuana, (0.5%) consumes surkur die, (0.8) inhale glue solution, (55%) do not involve in substances abuse while the table revealed that there some number of substance abuse that there are no responses toward the

Discussion

The findings of the study in Table 1a showed that youths within the age group of 12-21years are the majority to be associated with substance abuse. This finding was expected and therefore not surprising because youth within these age groups are more influenced easily. This finding was in contrast with that of Ajayi and Somefun, (2020) and Okoza and Aluede (2009) who found out that majority of youth who are associated with substance abuse are within the age range of 21-25years. Oshikoya and Alli (2006) reported that those associated with substance abuse are older youths. This implies that among the youths, the older ones abuse drugs, and also influence the younger youths who learn how to abuse drugs.

The findings of the study showed that males are more associated with substance abuse than their female counterparts. This finding is in line with the reports of Akande, Adisa and Ilesammni (2019), who conducted a research and the finding indicated that males are more prone to substance abuse than females. Thus, it validated the finding of this study, though the areas of the different studies are not the same. However, this finding was expected and therefore not surprising because in ghetto and slump areas, males are mostly known for craving for hard substances as criteria for assuming adulthood. This finding was also in agreement with that of Alexander, Watson and Fleming (2011) who reported in their study that males abuse hard substances than females.

The findings of the study showed that those with secondary education are more associated with substance abuse than those with tertiary education, primary education and those with no education. This study was in line with the findings of Fagbe (2019) who also in his study find out that youths in secondary education abuse drugs more. Meanwhile, this finding was not expected and therefore surprising because it is expected that youths with no education qualifications are the youths that abuse substances because poor exposure and lack of knowledge of the harmful effect of substance abuse. This finding was in contrast with that of Chen and Kendel (2011) who reported that substances are majorly abused by those in no education.

The Findings of the study showed that the majority of youths consumed alcohol than other substances. This finding was expected and therefore not surprising because it is believed that alcohol can be easily accessed by everyone and can be purchased at any price rate. This finding was in agreement with that of Ibiyemi (2020), Idowu, Arema & Olumide, 2018 and Ellickson & Bell (2013) who reported alcohol to be the most abused substances among young individuals.

Conclusions

This study concluded that youths who are within the age group of 12-21years are the majority to be associated with substance abuse. Males are more associated with substance abuse than their female counterparts. Those who are single are more associated with substance abuse than those who are married and those who are divorced. Those with secondary education are more associated with

substance abuse than those with tertiary education, primary education and those with no education. Majority of the respondents which are Christians are more associated with substance abuse. Majority of youths consume alcohol than other substances. Majority of the respondents are students who were the highest group of friends. Others were the highest to be influenced into substance abuse. Majority of the respondents are students compared to other occupation. Those who earn less than N5,000 monthly income are higher than others and are mostly affected.

Recommendations

Based on the findings of the study the following recommendations were made:

1. The federal government in collaboration with National Drug Law Enforcement agency (NDLEA) should ensure that the abuse of substances is regulated among the Nigerian population.
2. There should be efforts by drug agencies to track down the importation of hard drugs into the country.
3. All institutions in the country (primary, secondary or tertiary institutions) should develop courses that will educate students about the harmful effects of substance abuse.

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**CURRICULUM IMPLEMENTATION AND IN-SERVICE TRAINING
OF TEACHERS IN ENGLISH LANGUAGE:
A PANACEA FOR FUNCTIONAL EDUCATIONAL
SYSTEM IN NIGERIA**

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Abstract

Every functional education depends on the quality of teachers in the system. This is because teachers are the major implementers of the curriculum. Therefore, a consideration of a stable and functional educational system should involve consistent provision of in-service training of teachers for effective and efficient implementation of the curriculum for Nigerian schools. Consistent development and provision of in-service training of teachers in English language will improve the capability of teachers for efficient use of the curriculum, being the implementers of the educational programmes. As such, there is a need for organizing in-service training programmes for teachers and provision of adequate supply of human and material resources for educational productivity and consolidation of the Nigerian educational system. It is the concern of this paper to consider the need for organizing in-service training of teachers in English language, for efficient curriculum implementation by professionally trained teachers and curriculum innovation for qualitative and functional educational system in Nigeria.

Keywords: Education, curriculum, in-service training

Introduction

Education is a continuous process of upgrading or renewal of knowledge in order to promote quality learning outcomes. This cannot be effectively done without the instructional effort of teachers who constitute the pivot of any school system. Nigeria as a developing country consistently need to be organizing in-service training for their teachers to facilitate efficient and effective implementation of curriculum for teaching productivity and functional Nigerian educational system. The rate of academic development and the increasing demand with regards to knowledge require a constantly and regularly updated teaching workforce that is, teachers that are professionally trained and have acquired skills with regard to the changing job content and environment. To meet these requirements, there is need for organizing in-service training for teacher to keep them updated in the society. Also, effective and functional curriculum implementation involves professionally trained teachers because they constitute the vital force as part of the implementers of the curriculum at every stage of the educational programme. Therefore, teachers are important factor in educational development. The quality of teachers determines the quality of their output. As such, no educational system can be consolidated without the development of the teachers that are the major implementers of the curriculum,

The National Policy on Education (2004); section 8, stated that "in-service training shall be developed as an integral part of continuing teacher education and shall also take care of inadequacies..." The policy stressed the importance of in-service training and further stated that "efforts towards the improvement of quality education at the primary and secondary levels shall include regular in-service training programmes for teachers and head teachers". These two policy statements underscore the necessity of regular training and re-training of teachers for consolidating the Nigerian educational system. This will enhance continuing teacher development and improvement of the quality of education offered to learners at primary and secondary levels. It is also a pointer to the fact that education, even for teachers, is a continuous and life-long process.

Therefore, it is hoped that effective management of teachers through the provision of funds, redistribution of teachers among schools, and provision of in-service training for teachers will not only improve the quality of education and consolidate the educational system; but that the curriculum for the Nigerian schools will be effectively and efficiently implemented towards the fulfillment of educational goals and objectives.

The Concept of In-service Training

In-service training refers to training given to teachers who are already in-service in order to improve their instructional knowledge, skills, techniques, methods and attitudes as well as make them adapt to innovation in the teaching profession (Dilaver, 2018). In-service training therefore connotes education for employees to help them develop their skills in a specific discipline or occupation (Adler & Reed, 2019). According to Onwugbolu (2008), In-service training is a programme or course of study arranged to come in between work periods and work-free periods or course of business or industrial study including periods, usually 3-6 months spent in working for a company or school. This suggests that in-service training is a service of planned instructional programmes designed for a specified group(s) of professional staff for the purpose of promoting growth and job competence.

Significantly, knowledge and skills acquired during in-service training help teachers to carry out their duties effectively. Mkpá (2002) stressed that in-service training of teachers is a life-long teacher education which cultivates in teachers the attitude of learning. Similarly, Olude (2004) sees in-service training as a veritable means of keeping teachers abreast of current professional needs for their overall improvement in particular and the educational system in general. It includes seminars conferences and internship where participants are involved in practical works or field trips. In the teaching profession, the teacher constitutes a critical factor in the success of any educational system. Many laudable educational initiatives have failed mainly because they did not take due account of the "teacher factor". The quality of the teacher, to a large extent, determines the quality of the educational system (Rogers 1973). It should be recognized that, production of quality teachers will enhance the consolidation of educational system in Nigeria. Therefore, in-service training of teachers in English language will enhance quality teaching and better teachers' productivity and consolidation of the Nigerian educational system.

Efficient Curriculum Implementation for Qualitative Teaching Outcome

The comprehensive nature of the secondary school curriculum necessitates the in-service training of specialist teachers, especially in English Language. It should be noted that, there had been a rush for the expansion of facilities for training English language teachers in Nigeria. Since the late 1970s and between 1977 and 1985, efforts have been geared towards the raising of the quality and quantity of manpower needed for the efficient implementation of the curriculum and qualitative teaching outcome (Eze, 2016). Nigeria has a laudable educational system like many other countries of the world. Each country has its peculiar characteristics and thereby adopts its policies to meet its own social, economic, political and cultural needs (Fatile, 2005). As a result, each country needs different strategies to realize the basic policies which are crucial to the development of education in the general education policies because of the pressing need for more sophisticated type of education. The National Policy on Education states the five objectives of education vis-à-vis the building of: a free and democratic society, a just and egalitarian society, a united strong and self-reliant nation, a great and dynamic economy, and a land of bright and full opportunities for all citizens (NPE, 2004). Two of the stated objectives called for pragmatism of re-education. That is practical or vocational aspects of education coupled with craft knowledge. This kind of educational ideas and objectives need be consolidated through effective re-training of professional teachers in English language. This will also help in determining the quality of teachers' productivity, and teaching outcome.

Teachers' productivity is an important factor in educational development and also a vital factor in consolidating the Nigerian educational system. In-service training of teachers determines the quality of the out-put and no nation can progress without the effective development and management of teachers (Sofoyeke, 2014). Therefore, in-service training of English language teachers will encourage functional educational system in Nigeria. This is very necessary because English being a functional language has so many aspects which every qualified English language teacher should be able to master for effective teaching productivity. The enhancement of qualitative teaching outcome will involve the improvement of the quality of English language teachers to meet the needs of the learners, fulfill educational goals and satisfy the need of the society at large. The major problem militating against the smooth running and consolidation of Nigerian system of education is the implementation. This may be due to lack of certain resources either human or material. There are some problems aligned with the 9-3-4 system of education; these include the curriculum problem. Although there is a well defined curriculum on paper for the programme, but one cannot at present talk of good outcome of this system; especially in the lower secondary school education since the inception of the programme. There is also the problem of accommodating students who have finished the first section of the secondary school system. Inadequate classrooms, inadequate workshops, laboratories, and other needed materials make it impossible to implement to the letter what was

written in the curriculum. There are also the problems of getting well-trained professional teachers to install some educative machines for effective teaching and learning and the idea of using the foreign technicians' results to heavy spending on the part of the government. More importantly, is the mixing of the old 6-3-3-4 system of education with the new system. This has complicated the whole system even the curriculum. It is difficult to explain the idea of junior and senior secondary schools to the populace. These and other problems hindered the smooth running of the Nigerian educational system.

The Role of English Language Teachers in Productive Curriculum Implementation

A teacher is a person who consciously and deliberately organizes systematic instructions for learners/students. That is, a teacher imparts knowledge to others. A teacher therefore supposes to be the one that should exclusively be regarded as honorable members of the society. This is because teachers are the molders of life and character of the young citizens through various training programmes in our schools; they occupy strategic positions in curriculum planning, development, and implementation (Dada, 2016). Therefore, for functional educational system in Nigeria; teachers in English language should be recognized as a vital consolidating factor sustaining the position of Nigerian educational system. The curriculum is being interpreted, moderated and disseminated by the teacher through the English language. This shows that the English language held a very important position in

Nigeria. It is the national language occupying the place of daily interaction and as a medium of instruction. It is to be found that English plays a vital role in Nigeria to such extent that, the language had almost been natives. It was also observed by Akindele and Adegbite (2017), that, "English is an elitist language in Nigeria" since it is the means of acquiring the formal education. English is synonymous with formal education in Nigeria; the ability to speak English, places the speaker high on the social ladder than one who is unable to speak it; and the productive implementation of the curriculum is effective done by professional English language teachers.

On the whole, English language is the means by which teachers can implement the educational system effectively and productively. Teachers who have this vital responsibility of implementing the curriculum need be adequately prepared for the great task.

Views on Teachers Preparation and Productivity in English Language

As it has being examined earlier, the English language plays a vital role in Nigeria education and her political economy. As such, the interest and attitudes of teachers in English language towards effective, functional and Vibrant outcome or productivity is worthy of serious examination. By the launching of the Universal Primary Education (U.P.E.) scheme in 1976, Nigerians had six years to prepare for the next stage which was the launching of the junior secondary school scheme. The curriculum at this stage is more diversified and emphases are placed on the teaching of prevocational subjects in addition to two Nigerian languages. Therefore, the comprehensive nature of the secondary school programme necessitates adequate preparation of teachers for effective productivity in English language (Eze,2016). Teachers' productivity is an important factor in educational development and also a vital factor in consolidating the Nigerian educational system. In-service training of teachers determines the quality of the out-put and no nation can progress without the effective development and management of teachers. A teacher of English language is a person who consciously and deliberately organizes systematic instructions for learners. Therefore, teacher's competence, effectiveness and efficiency in the teaching of the subject constitute a critical factor in the success of the Nigeria educational system. In-service training of English language teachers is a vital tool for functional educational system in Nigeria. This is because English being a functional language in Nigeria has so many aspects which every qualified English language teacher should be able to master for effective teaching productivity.

In-service Training of Teachers in English Language and Functional Educational System in Nigeria

In- service training of teachers on the job in English language in order to enhance functional educational system in Nigeria and to improve the process of teaching and learning is very important in quality education. This is because it will encourage teacher development which aims at increasing the ability of individuals and groups to contribute to organizational effectiveness. While in-service training is designed to improve the English language teacher's skills, also development programmes are designed to educate employees beyond the requirements of their present position so that they will be prepared for promotion and be able to take a broader view of their role in the organization.

The need of in-service training of teachers in English language who are being promoted is self-evident, because every job usually requires training in new skills. For effective productivity of teachers and consolidation of Nigeria educational system, there is need for in-service training of school system (Olamide, 2017). The essence of in-service training is also to equip the teachers with the attitudes and skills to solve problems in teaching and learning. If teachers are effectively equipped with good knowledge and skills, there is no problem they cannot solve as it regards to making our educational functional. In-service training of English language teacher is in the ethnics of the profession to improve teachers methods, skills, and procedures to enhance their out-puts, efficiently and productivity. Over the years when teachers were employed in large number, induction trainings were organized for them by the ministry of education but of recent, employment is scarcely and secretly done and hence the few newly employed teachers do not undergo any form of induction.

Curriculum Review and Innovation by the English Language Professional Teachers

Gidado (2000) observed and identified "inappropriate and irrelevant curriculum" as a major factor hindering the achievement of educational goals. Dada (2016) advocated for curriculum innovation, he said "when curriculum is not achieving what is expected to achieve and when the conditions for which a curriculum was established have changed considerably, then achieving qualitative teaching outcome will be hindered". It should be realized that basic education must be tailored towards meeting the needs of the learner and the community in which he/she lives. Teaching and learning of English language will not count for much, if it cannot equip the beneficiaries with skills for lifelong learning and the survival of the educational system in Nigeria. Therefore, the English language curriculum should be reviewed and enriched in order to integrate the learner into the community rather than to alienate the learner from the community. Hence, the urgent need to review and enrich English language curriculum to ensure that they meet individual, community and nation needs as well as consolidating the educational system. Enriching curriculum for functional and qualitative teaching outcome will bring new challenges and improvement to technological advancement that is related to language teaching and appropriate language skills. Reviewing the English language curriculum should include research development; research has not been given its well-deserved attention in the area of curriculum development and implementation. Efforts must be made to accord priority to research as a catalyst for change and teachers' effectiveness and productivity in teaching English language as well as in other subjects. These and other factors will help in consolidating the educational system of the nation.

Conclusion

This paper has highlighted the various means by which English teachers can improve themselves on the job to influence their productivity and to be able to implement the educational programmes effectively. It should be borne in mind that teachers constitute a critical factor in the success of any educational system. Many laudable educational initiatives have failed mainly because they did not take due account of the "teacher factor" especially when it has to do with the language of instruction and effective means of implementing the curriculum. The quality of the teacher, to a large extent, determines his/her productivity and the achievement of educational goals. It is therefore recommended that in-service training of teacher should be given a vital consideration for efficient curriculum implementation. Problems hindering production of quality teachers such as funding, poor quality of training, low motivation, lack of quality control and lack of in-service training should be seriously considered and urgent solutions should be provided with the hope of improving the quality of education through effective management of teachers on the job. The major problems militating against professionalism in teaching especially the effective management of teachers should be taken care of for effective productivity in teaching. The problem of inadequate provision of human, material and financial resources for curriculum development and implementation should be eroded. To revitalize education and consolidate educational system, government should provide enough fund, pay teachers' salaries, allowances, pensions and gratuities promptly. Curriculum review and innovation should be a consistent programme. Teachers' development programmes should be established, encouraged and should be given priority for functionality in the teaching profession. It is hoped that when the curriculum is being enriched and standardized according to the goals of education, and teachers are effectively developed, reinforced and re-distributed according to their disciplines, there will be improvement in the quality of education, stability and consolidation of educational system in Nigeria. It is also hoped that in-service training will equip the teachers with the attitudes and skills to solve the problem of functionality of Nigeria education.

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**PROSTATE CANCER KNOWLEDGE AND SCREENING PRACTICES
AMONG PRIMARY SCHOOL TEACHERS IN ENUGU STATE,
NIGERIA**

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Abstract

The study determined the prostate cancer knowledge and screening practices among primary school teachers in Enugu State. Descriptive cross-sectional research design was adopted. The population for the study was 1715 primary school male teachers in Enugu State. Multi-stage sampling was used to draw a sample of 362 participants. Researcher designed questionnaire was used for data collection. Reliability of the instruments was tested using the split-half method and internal consistency were established with Cronbach Alpha test and Spearman's Brown correlation formula. Data analyses were performed with SPSS application, version 23. Frequency, percentages were used to analyze objectives 1 and 2. Chi-square analysis was used to test the hypotheses at .05 level of significance. The study found knowledge of prostate cancer was moderate (42.52%) but screening practice was poor (39.24%). The result also showed that there was no significant difference in the level of knowledge of prostate cancer among primary school teachers based on age ($\chi^2 = 2.639$, $p = .451$), but there was a significant difference in the level of knowledge based on level of education ($\chi^2 = 14.126$, $p = .003$) and marital status ($\chi^2 = 12.180$, $p = .002$). The result also showed that there was no significant difference in the prostate cancer screening practices based on age ($\chi^2 = 3.517$, $p = .513$) but there was a significant difference in the prostate cancer screening practices based on level of education ($\chi^2 = 118.957$, $p = .001$) and marital status ($\chi^2 = 128.660$, $p = .001$). The study concluded that the teachers had moderate knowledge of prostate cancer but their screening practices were poor. It was recommended that it would be necessary to increase information on the benefits of prostate cancer screening practices.

Keywords: Prostate cancer, knowledge, screening practices, primary school teachers.

Introduction

Prostate cancer is a global public health problem affecting both developed and developing countries. It is the cancer of the prostate gland and affects only men. Prostate cancer is one of the most prevalent cancers around the world, which affects the prostate gland in males (Sung et al., 2021). Prostate cancer is one of the leading causes of cancer-related deaths among males globally (American Cancer Society, 2019). Prostate cancer is considered the fourth most common cancer globally and the second leading cause of cancer-related deaths in men (Ferlay et al., 2019). The American Cancer Society 2019 report showed that an estimated 174,650 new cases of prostate cancer was diagnosed in the USA during 2019 (American Cancer Society, 2019). The report further stated that an estimated 31,620 deaths from prostate cancer would occur in 2019. It further put the incidence of prostate cancer to about 60% higher in blacks than in whites suggesting a genetic predilection to the cancer. According to the American Cancer Society, one in 41 American men was diagnosed with prostate cancer (Hassanipour-Azomi et al., 2016). In Nigeria, prostate cancer is the leading cause of cancer death among men (Akinremi et al., 2014). Prostate cancer can be caused by some risk factors such as increased age, race, heredity or family predisposition, unhealthy diet and others. Although the causes of prostate cancer are not yet fully understood, it is thought that advanced age (above 50 years), positive family history of prostate cancer and an African-American ethnic background are risk factors (American Cancer Society, 2019). This indicates that prostate cancer is health problem without known causes both in the developed and developing countries. Prostate cancer can be asymptomatic but may presents with certain clinical manifestations at different stages of the illness. At the initial stage,

urinary frequency, straining on urination, urinary urgency, poor streaming of urine and urinary retention. At later stage if not detected, painful ejaculation, weight loss, bloody urine, anaemia, and metastasis of other organs.

The high incidence and mortality rate due to prostate cancer may be related to the knowledge of prostate cancer among men. Previous studies by Musalli et al., (2021) Yunusa et al., (2017) Morrison et al., (2017) & Makado et al., (2015) reported 64%, 81%, 96% and 82% respectively indicating high knowledge of prostate cancer among the participants. However, other studies by Balogun and Odelola (2023) Gift et al., (2020) and Awosan et al., (2018) reported low level of knowledge of prostate cancer among the respondents. However, other studies found high levels of awareness (Muhammad et al., 2016; Kinyao et al., 2018). Hussani et al., (2022) indicated that majority of the men were aware of prostate cancer and had a good knowledge of the disease but a poor perception of prostate cancer screening. Adibe et al., (2017) reported 57.8% moderate level of knowledge of prostate cancer. Knowledge of prostate cancer may affect the prostate cancer screening practices among men.

Prostate cancer screening practice is one of the most important factors in preventing prostate cancer. Detection of cancer cells at early stage through have better prognosis than at the late stage when little or nothing can be done. There are two types of screening that are commonly used in clinical practice, which are digital rectal exam (DRE) and prostate-specific antigen (PSA) (Clark et al., 2017). DRE is highly recommended for men above the age of 40 years with previous family history or risk factors of prostate cancer and for men above the age of 50 years with no positive history (Digital rectal examination, 2020). Gift et al., (2020) stated that DRE was the most commonly used method of prostate cancer screening which is contrary to findings by similar studies done in Nigeria that found PSA to be the most commonly used method (Adibe et al., 2017). Other researchers, Yunusa et al., (2017) and Makado et al., (2015) reported 68% and 71% of the participants had done prostate screening. Gift et al., (2020) indicated that, only (13%) had been screened in the last 2 years. Among participants who had screened, 20 (76.9%) pointed out DRE as the method used, while 3 (11.5%) pointed out PSA, 2 (7.69%) reported both DRE and PSA, and 1 (3.85%) did not know which screening method was used, 18 (69.2%) had a positive prostate cancer outcome, while 8 (30.8%) had a negative prostate cancer outcome. 199 (99.5%) of the participants expressed intentions to screen in future. Previous studies by Awosan et al., (2018) and Kinyao & Kishoyina, (2018) demonstrated low level of prostate cancer screening practice in their various findings. This suggests a possible cost barrier to utilization of the PSA screening method in our sample. Gift et al., (2020) and Makado et al., (2015) noted that (41.8% & 72.7%) of men had heard of prostate screening methods, primarily PSA test before. Musalli et al., (2021) indicated that about 23% of the participants had done some form of prostate screening test either prostate-specific antigen (PSA) or digital rectal exam (DRE); most of them were men older than 50 years. Knowledge of prostate cancer is expected to motivate men engage on regular screening for early detection and positive outcome. However, combined factors may interfere with the knowledge of prostate cancer.

Knowledge of prostate cancer. may be associated with some socio-demographic factors. Arafa et al., (2015) noted that all the studies conducted in Saudi Arabia showed a poor quality level of education and poor practice toward screening methods. This denotes that education is associated with prostate cancer screening. Musalliet al., (2021) noted that respondents with higher socioeconomic status demonstrated a higher level of knowledge about prostate cancer than the other groups. Previous studies by Awosan et al., (2018) and Kinyao et al., (2018) which did not found an association between education level and prostate cancer knowledge. This denotes that education is associated with prostate cancer screening. Gift et al., (2022) study showed that advanced age ($p=0.017$), having secondary or tertiary education ($p=0.041$), increased knowledge ($p=0.023$) and family history of cancer ($p=0.003$) increased prostate cancer screening practice and participants with increased knowledge ($p=0.001$) and family history of cancer ($p=0.002$) were more likely to practice prostate cancer screening. Other studies by Mofolo et al., (2015) and Adibe et al., (2017) revealed that participants with higher level of education were more knowledgeable about prostate cancer than those who had lower level of education or no formal education at all. Morlando et al., (2017) noted that knowledge of prostate cancer was higher: in men with older age, in those that had a higher level of education, in those who had a relative with prostate problems or prostate cancer and in those with prostate problems. Previous studies indicated varied level of knowledge and screening practices of prostate cancer among men. None of these studies were conducted among the male primary school teachers in Enugu. Thus, the need for the study.

Objectives of the Study

The main purpose of the study is to determine prostate cancer knowledge and screening practices among the male primary school teachers in Enugu. Specifically, the study determined the:

1. level of knowledge of prostate cancer among primary school teachers in Enugu State.
2. level of knowledge of prostate cancer screening practices among primary school teachers in Enugu State.

Hypotheses:

Two null hypotheses were postulated and tested at .05 level of significance.

1. There is no significant difference in the level of knowledge of prostate cancer among primary school teachers in Enugu State based on socio-demographic variables (age, level of education and marital status).
2. There is no significant difference in the prostate cancer screening practices among primary school teachers in Enugu State based on socio-demographic variables (age, level of education and marital status).

Materials/Methods

Study Design

This study adopted descriptive cross-sectional survey design. Descriptive cross-sectional survey design is aimed at collecting data and describing in a systematic manner the characteristics, features or facts about a given population in their natural settings, and determines relationship that exists between the specific variables. This design permits the collection of data about a larger population from a portion or segment of that population from where generalization can be inferred.

Study Setting

The study was conducted in Enugu State, Nigeria. Enugu State is one of the 36 States in Nigeria and is made up of 17 Local Government Areas (LGAs). The State is bounded on the North by Benue State, on the south by Abia State, on the west by Anambra and on the east by Ebonyi State. The State has many primary schools that admits pupils for learning. The State also employ some teachers to teach and guide the pupils. The teachers are of different age groups and different level of education (NCE, B.Sc/B.Ed, Ph.D.). There few health facilities that provide information/services on prostate cancer and the screening practices, which are located in urban areas. In addition to ignorance in health matters, there is also the problem of cultural belief about the causes and treatment of cancer. The ignorance in health matters and cultural belief may be affecting their ability to acquire knowledge about prostate cancer and access the screening practices. Hence the need for the study.

Study Population

The population of the study consisted of all primary school teachers in Enugu State, Nigeria. The total population was 1715 (Primary School Management Board Enugu State-PSMB, 2021).

Sample Size and Sampling Technique

The sample size for the study was 362 primary school teachers in Enugu State, Nigeria. The sample was based on the suggestion of Cohen, Manion and Morrison (2018) that when the population is 1500 and above at 95 percent confidence level (5% interval), the population can be 306 and above. The sample size was calculated using Yamane (1967) formula. A total of 329 was selected.

Multi-stage sampling procedures were used in the study. First, simple random sampling technique was used to select three education zones out of six education zones in the state. The selected zones are Nsukka, Awgu, Enugu and Agbani. The second stage involved the use of simple random sampling to select 14 schools (seven rural and seven urban schools) from each of the four education zones. This resulted in a total of 56 primary schools. Disproportionate sampling was used to draw six male primary school teachers from each of the selected schools. This produced a total of 350 teachers and additional 32.9 attrition rate (362) that were used for the study.

Data Collection Tool

Two instruments were used for data collection. The instrument is the researcher designed questionnaire titled Prostate Cancer Knowledge and Screening Practices Questionnaire among Primary School Teachers in Enugu State (PCKSPQ). The PCKSPQ was divided into two sections; A and B. Section A(PCKQ) consisted of 10 items on prostate cancer knowledge of polychotomous response options (multiple choice questions). The respondents were required to tick (√) only one

option as it applies in any of statement. Section B PCSPQ consisted of five items on prostate cancer screening practices with dichotomous response options of “Yes or No”.

Data Reliability

In order to determine reliability of the instrument of the study, 20 copies of the instrument were administered to primary school teachers in Obollo-Afor education zone. The internal consistency of PCKQ and PCSPQ were determined using Cronbach Alpha test and Spearman’s Brown correlation formula respectively. A reliability coefficient index of .78 and .75 respectively was obtained.

Consent Approval

The researcher presented a duly signed approval obtained from primary school management board to the headmaster/headmistress of each school selected for the study. The headmaster/headmistress introduced the researcher to the respondents. An informed consent was obtained from the teachers after a detailed explanation of the purpose and benefit of the study. The participants were promised that their responses would be treated with utmost confidentiality and that their consent was voluntary and they are free to withdraw from the study at any time.

Data Collection Procedure

The researcher used one research assistant (teacher) for each school who were briefed on modalities of data collection. Three hundred and sixty-two copies of the questionnaire were administered to the respondents by the researcher and research assistants. The completed copies of the questionnaire were collected on the spot to ensure high return rate. Out of the 362 copies of the questionnaire administered, 350 were properly completed which gave a return rate of 96.6 per cent used for data analysis.

Data Analysis

The completed copies of the instrument were used for data analysis. Data analysis was conducted using Statistical Package for Social Science (version 23). Research objectives 1 and 2 were analyzed using frequencies and percentages. Okafor (1997) criteria was used for determining knowledge criteria. The research question 1 was interpreted using Okafor (1997) criteria for determining knowledge. Thus, scores 0-19% was considered to be very low knowledge, 20-39% was interpreted as low, 40-59% was considered as moderate, 60-79% as high knowledge while 80% and above was considered as very high knowledge. Research question 2 was interpreted using Blooms (2000) criteria as used by Alan et al., (2021). Percentages below 50 were considered poor practice while percentages 50 and above were considered good practice The hypotheses were tested using Chi-square statistics at a 0.05 level of significance.

Results

Table 1: Level of knowledge of prostate cancer among primary school teachers in Enugu State (350)

S/N	Knowledge statements	Correct F	Responses (%)	Decision
1.	Ever heard of prostate cancer	205	(58.57)	M
2.	Correct definition of prostate as cancer of the prostate gland.	148	(42.2)	M
3.	Identification of age at risk of prostate cancer.	168	(48.0)	M
4.	Identifying the gender mostly affected by prostate cancer.	201	(57.4)	M
	Identifying the major signs and symptoms of prostate cancer.	154	(44.0)	M
6.	Ever heard of digital rectal examination?	122	(34.9)	L
7.	Ever heard of prostate specific antigen (PSA).	97	(27.7)	L
8.	Identification of old age as risk factor for development of prostate cancer.	196	(56.0)	M
9.	Prostate cancer can be prevented	102	(29.1)	L
10.	Prostate cancer can be treated if detected early.	96	(27.4)	L
	Overall %		42.52	M

Key: 0-19% =very low knowledge, 20-39% low knowledge, 40-59% = moderate knowledge, 60-79%=high knowledge while 80% and above =very high knowledge.

Result in Table 1 showed that the overall percentage of primary school teachers possessed moderate knowledge (42.52%) of prostate cancer. The table further indicates low knowledge for items 6, 7, 9 and 10 but moderate knowledge for items 1, 2, 3, 4, 5 and 8.

Table 2: Proportion of primary school teachers in Enugu State that practiced prostate cancer screening (n=350)

S/N	Screening practices	Yes f (%)	No f (%)
1.	Have you ever heard of prostate cancer screening test?	146 (41.7)	204 (58.28)
2.	Have you ever undergone prostate exam (digital rectal examination)?	138 (39.42)	212 (60.57)
3.	Have you ever undergone prostate specific antigen screening test (PSA)?	122(34.85)	228 (65.14)
4.	Would you like to undergo prostate specific antigen test to check for prostate cancer?	159 (45.42)	191 (54.57)
5.	Have you been advised to undergo prostate specific antigen screening test by a physician?	122 (34.85)	228 (65.14)
	Overall %	(39.24)	(60.74)

Key: Scores below 50% is considered poor practice while scores from 50% and above is interpreted as good practice.

Table 2 indicated that overall the prostate cancer screening practice among primary school teachers in Enugu State was poor (39.24%). The table also shows that the primary school teachers had poor practice for only item 4 and poor practice for the remaining four items.

Table 3: Summary of Chi-square Analysis Testing the Null Hypothesis of No Significant Difference in the Level of Knowledge of Prostate Cancer among Primary School Teachers based on socio-demographic Variables of (age, level of education and marital status).

Variables	N	True O(E)	False O(E)	χ^2	df	p- value	Decision
Age(years)							
30-40	13	7(8.0)	6(5.0)	2.639	3	.451	Not rejected
41-50	124	68(73.0)	56(51.1)				
50-60	139	78(73.4)	61(65.6)				
60 and above	74	42(43.0)	32(30.0)				
Level of Education							
NCE	130	106(104.0)	24(26.0)	14.126	3	.003	Rejected
B.Sc/M.Ed	153	123(121.1)	30(29.0)				
M.Sc/M.Ed	59	50(44.2)	9(15.0)				
Ph.D	8	6(5.8)	2(2.2)				
Marital status							
Married	236	199(201.0)	37(35.0)	12.180	3	.002	Rejected
Single	10	8(7.4)	2(2.6)				
Divorced/ Separated	60	50(51.2)	10(8.8)				
Widowed	44	38(40.5)	6(3.5)				

Result in Table 3 showed no significant difference in the level of knowledge of prostate cancer among primary school teachers based on age ($\chi^2 = 2.639$, $p = .451$) since the p-value is greater than .05 level of significance. This implies that the primary school teachers' level of knowledge of prostate cancer are the same irrespective of age. The Table further showed significant difference in the level of knowledge based on level of education ($\chi^2 = 14.126$, $p = .003$) and marital status ($\chi^2 = 12.180$, $p = .002$) since their p-values are less than .05 level of significance. This implies that primary school teachers' level of knowledge of prostate cancer varied based on their level of education and marital status.

Table 4: Summary of Chi-square Analysis Testing the Null Hypothesis of No Significant Difference in the Prostate Cancer Screening Practices among Primary School Teachers based on socio-demographic Variables of (age, level of education and marital status).

Variables	N	True O(E)	False O(E)	χ^2	df	p-value	Decision
Age(years)							
30-40	13	6(5.0)	7(8.0)	3.517	3	.513	Not rejected
41-50	124	73(77.0)	51(47.0)				
51-60	139	73(73.4)	66(65.8)				
60 and above	74	40(42.0)	34(32.0)				
Level of Education							
NCE	130	104(102.1)	26(27.9)	118.952	3	.001	Rejected
B. Sc/B.Ed	153	111(119.4)	42(33.1)				
M.Ed/M.Sc	50	48(43.7)	10(6.3)				
Ph.D	8	5(5.2)	3(2.8)				
Marital status							
Married	236	185(194.3)	51(41.7)	128.660	3	.001	Rejected
Single	10	7(6.9)	3(3.1)				
Divorced/ Separated	60	49(50.1)	11(9.9)				
Widowed	44	40(41.0)	4(3.0)				

Result in Table 4 showed no significant difference in the prostate cancer screening practices among primary school teachers based on age ($\chi^2 = 3.517$, $p = .513$) since the p-value is greater than .05 level of significance. This implies that the primary school teachers' prostate cancer screening practices are the same irrespective of age. The Table further showed significant difference in the prostate cancer screening practices based on level of education ($\chi^2 = 118.957$, $p = .001$) and marital status ($\chi^2 = 128.660$, $p = .001$) since their p-values are less than .05 level of significance. This implies that primary school teachers' level of knowledge on prostate cancer screening practices varied based on their level of education and marital status.

Discussion

The finding of the study in Table 1 showed that primary school teachers possessed moderate (42.52%) knowledge of prostate cancer. This might be due to the knowledge the teachers acquired through their course of training. Their moderate knowledge may be associated with the fact that teachers are public servants who were educated and had good access to health information through internet services, radio, television or other printed media. The finding is at variance with previous studies by Musalli et al., (2021), Yunusa et al., (2017), Morrison et al., (2017) & Makado et al., (2015) reported 64%, 81%, 96% and 82% respectively indicating high knowledge of prostate cancer among the participants. The finding also disagrees with other studies by Balogun and Odelola (2023) Gift et al., (2020) and Awosan et al., (2018) that reported low level of knowledge of prostate cancer among the respondents. The result of the study corroborates with the finding of Adibe et al., (2017) which reported moderate (57.8%) level of knowledge of prostate cancer. The differences and similarities in the studies may be related to area of study, sensitization on the topic and the respondents. Result in Table 1 also indicated that (58.57%) have heard of prostate cancer, (44.0%) identified the signs and symptoms of prostate cancer, (29.1%) knew that the problem is preventable while only (27.4%) knew that the problem can be cured if detected early. This disagrees with the result of Wachira et al., (2018) which reported that *knowledge on various domains was low as 87% of the respondents were not aware of the symptoms of prostate cancer, 52% did not know that the disease is preventable while 71% did not know the disease is curable.*

The findings in Table 2 indicated that the prostate cancer screening practice among the primary school teachers was poor (39.24%). This calls for increased sensitization to motivate the teachers to undergo prostate cancer screening test to promote early detection and positive outcome. This is in disagreement with the result of Yunusa et al., (2017) and Makado et al., (2015) which reported that 68% and 71% of the participants had done prostate screening, which denotes good practice. Makado et al., further reported that the respondents have heard about PSA from their doctors, and 29% of those have done the PSA test. The finding of study disagrees with the result of Gift et al., (2020) which indicated that, only (13%) had been screened in the last 2 years. Among participants who had screened, 20 (76.9%) pointed out DRE as the method used, while 3 (11.5%) pointed out PSA, 2 (7.69%) reported both DRE and PSA, and 1 (3.85%) did not know which screening method was

used. However, the finding of the study is similar with the results of previous researchers by Awosan et al., (2018) and Kinyao & Kishoyina, (2018) that demonstrated low level of prostate cancer screening practices in their different findings among the participants. The finding of the study contradicts with the result of *Hussani et al., (2022)* who reported that the majority of the men had a good knowledge of the disease but a poor perception of prostate cancer screening and that approximately 81% of the respondents indicated that they did not screen for prostate cancer due to fear of the procedure (55%) or fear the doctor might find prostate cancer (56%). The similarities and differences might be attributed to differences in the method of data collection, area of the study and statistical tools used.

The result of the of the study in Table 2 further indicated that (41.7%) have heard of prostate cancer, (39.22%) have undergone digital rectal examination while (45.42%) are willing to do PSA to screen for prostate cancer. This concurs with the findings the Gift et al., (2020) stated that DRE was the most commonly used method of prostate cancer screening but contrary to findings by similar studies done in Nigeria that found PSA to be the most commonly used method (Adibe et al., 2017). The finding of the study disagrees with the result of Gift et al, (2020) which indicated that, only (13%) had been screened in the last 2 years and among participants who had screened, (76.9%) pointed out DRE as the method used, while (11.5%) pointed out PSA, (7.69%) reported both DRE and PSA, and (3.85%) did not know which screening method was used, (99.5%) of the participants expressed intentions to screen in future. The finding disagrees with Morlando et al., (2017) study which reported that 72.7% of respondents had heard about the PSA-test, 51.1% of those had heard about it through their physicians, only 29.6% of men had undergone a PSA-test and 59.4% were willing to do so in the future.

The result in Table 3 shows no significant difference in the level of knowledge of prostate cancer among primary school teachers based on age ($\chi^2 = 2.639$, $p = .451$) since the p-value is greater than .05 level of significance. This may be attributed to the level of education of the participants. This disagrees with Morlando et al., (2017) who reported that knowledge of prostate cancer was higher: in men with older age, in those that had a higher level of education, in those who had a relative with prostate problems or prostate cancer and in those with prostate problems. This disagrees with the study of Gift et al., (2022) which showed that advanced age ($p = 0.017$) is associated with level of knowledge of prostate cancer. The Table further shows significant difference in the level of knowledge based on level of education ($\chi^2 = 14.126$, $p = .003$) and marital status ($\chi^2 = 12.180$, $p = .002$). This is at variance with the results of some studies done in Nigeria and Kenya in 2018 which did not found an association between education level and prostate cancer knowledge (Awosan et al., 2018 & Kinyao et al., 2018). This contradicts with the findings of Arafa et al., (2015) which noted that all the studies conducted in Saudi Arabia showed a poor quality level of education and poor practice toward screening methods. This denotes that education is associated with prostate cancer screening. This agrees with the findings of Musalli et al., (2021) that noted that respondents with higher socioeconomic status (level of education) demonstrated a higher level of knowledge about prostate cancer and screening practices than the other groups. The finding disagrees with the study of Gift et al, (2022) which showed that having secondary or tertiary education ($p = 0.041$), increased knowledge ($p = 0.023$), increased prostate cancer screening practice and participants with increased knowledge ($p = 0.001$) and family history of cancer ($p = 0.002$) were more likely to practice prostate cancer screening. The findings were consistent with findings by similar studies done in other countries by (Mofolo et al., 2015 & Adibe et al., 2017) which revealed that participants with higher level of education were more knowledgeable about prostate cancer and screening practices than those who had lower level of education or no formal education at all. This is in consonant with Morlando et al., (2017) study which noted that knowledge of prostate cancer and the screening practices was higher in those that had a higher level of education. This is because education empowers the teachers to access information on radio, television and even through internet services about prostate cancer and the screening practices.

Conclusion

From the finding of the study, it was concluded that knowledge of prostate cancer was moderate while the prostate cancer screening practices were poor among the primary school teachers. The findings of the study also indicated that there was no significant difference in the knowledge of prostate cancer and screening practices based on age while there was a significant difference in the level of knowledge and screening practices based on level of education and marital status.

Recommendations

Based on the findings of the study, the following recommendations were made:

1. Health educators should embark on sensitization campaign to sensitize men on the importance of prostate cancer screening practices for detection and intervention.
2. State Ministry of Health and State Ministry of Education should collaborate to organize seminars for primary school teachers in their schools to ensure active participation and also motivate them to screen for prostate cancer.
3. The state government can subsidize the cost of prostate cancer screening cost to reduce the financial burden as well encourage the teachers to avail themselves for screening and also to maintain clinic appointments.
4. *There is need for health educators and other stake holders to scale up health education to the community regarding prostate cancer to enhance knowledge, eliminate fears and increase their screening. Practices.*

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SCHOOL PLANT MAINTENANCE AS A PREDICTOR OF SCHOOL ADMINISTRATION IN SECONDARY SCHOOLS IN RIVERS STATE

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Abstract

The study investigated school plant maintenance as a predictor of school administration in secondary schools in Rivers state. Two research questions were answered while two corresponding hypotheses were tested. The study adopted a correlation research design. The population of the study is 286 principals from 286 secondary schools in Rivers State. The sample size 143 principals was drawn from 143 public schools in Rivers state. The simple random sampling technique was used to arrive at the sample size representing 50% of the population. Two instruments, School Plant Maintenance Scale (SPMS) and School Administration Scale (SAS) were used for data collection. The instruments were face validated by three lecturers. The internal consistency reliability coefficient of School Plant Maintenance Scale (SPMS) and School Administration Scale (SAS) determined through Cronbach are 0.77 and 0.87 respectively. Linear regression was used to answer the research questions while t-test associated with linear regression was used to test the hypotheses at 0.05 level of significance. The findings revealed that maintenance of residential and instructional school plant significantly predicted school administration in secondary schools in Rivers state to a high extent. Based on the findings of this study, it was recommended the school principals should insist on routine maintenance of school residential facilities by closely supervising the activities of the teachers in the quarters. More so, the school principals should regulate the use of instructional facilities according to need and also assign each of the facilities to a teacher for proper management.

Keywords: School Plant (Residential and Instructional), Maintenance and School Administration

Introduction

School administration over the years can be situated as one of the serious challenges befalling secondary schools in Nigeria. School administration in the case of secondary schools in Rivers state may not be exempted. School administration involves the management of all school operations, from creating a safe learning environment to managing the school budget (Workplace Technology, 2023). Workplace Technology further stressed that school administration involves management of human and material resources towards the achievement of specific goals. It also includes the management of processes within a school system to ensure the achievement of particular outcomes (Isa, 2023). The school administrator is one in the secondary school qualified and saddled with responsibility of administrative functions. They ensure that the organization runs smoothly and they also manage facilities and staff. The school administrators manage budgets, handle logistics and act as a point of reference for everyone in the school (Ejiro, 2023). School Administrators are school planners, leaders, and one the competences as well as competencies to maintain school community relation (Workplace Technology, 2023). The school administrators are saddled with responsibilities of human and material resource management (Ozioko, 2023). This implies that principals can employ maintenance of school facilities as one of their statutory functions.

Schools require extensive maintenance and care to keep them running smoothly. Maintenance can be seen as the art of securing the standard of a person or thing (Grove, 2023). Grove further stated that maintenance is the process of sustaining the condition of an object or human beings. School maintenance refers can be seen as all the activities necessary for upkeep of equipment and

infrastructure available in the school environment. Maintenance can be seen as the measures applicable in the determination of continuous operation especially in keeping the school building, furniture, human and equipment in the best form for normal use. Maintenance is necessary in the school system because it can prevent any form breakdown of the system, emergency and hazardous events. Maintenance can be applied in the health facility, residential facility and instructional facilities. This study will focus on the residential and instructional facilities.

Residential facilities are those facilities that are made available in the building that accommodate personnel in the school system. Residential facilities in the school system include the hostels for students and quarters for teaching and non-teaching staff. They are the facilities that students and staff are housed especially for boarding schools (Agu, 2022). Agu further reported that the insistence on hygiene, security, and furniture provision and practices are necessary for harmonious leaving in the school. Proper painting, clearing of grasses, elimination of wastes, good pipe born water and electricity can lead to job satisfaction among the teachers in residential quarters (Ejiofor, 2023).

Another educational facility that is important to discuss is the instructional facilities. Instructional facilities are defined as classrooms, seminar rooms, on-campus clinics, computer laboratories, instructional laboratories, cybraries and other spaces used principally for the purpose of delivering formal instruction to our university students (Kelly, 2023). Recent study by Kelly revealed that proper maintenance of available instructional facilities are instrumental in the effective instructional delivery process. More so, it was found that poor attitude to maintenance culture of school staff to instructional facilities are detrimental to the achievement of its goals and objectives (Adekunle, 2023).

Aim and Objectives

The study investigated school plant maintenance as a predictor of school administration in secondary schools in Rivers state. Specifically, the study sought to:

1. find out the extent maintenance of residential school plant can predict school administration in secondary schools in Rivers state.
2. Ascertain the extent instructional school plant can predict school administration in secondary schools in Rivers state.

Research questions

The following research were answered in this study

1. To what extent can maintenance of residential school plant predict school administration in secondary schools in Rivers state?
2. To what extent can instructional school plant predict school administration in secondary schools in Rivers state?

Hypotheses

The following null hypotheses will be tested at 0.05 level of significance.

1. Maintenance of residential school plant cannot significantly predict school administration in secondary schools in Rivers state.
2. Maintenance of instructional school plant cannot significantly predict school administration in secondary schools in Rivers state.

Method

The study adopted a correlation research design. The population of the study is 286 principals from 286 secondary schools in Rivers State. The sample size 143 principals was drawn from 143 public schools in Rivers state. The simple random sampling technique was used to arrive at the sample size representing 50% of the population. Two instruments, School Plant Maintenance Scale (SPMS) and School Administration Scale (SAS) were used for data collection. The School Plant Maintenance Scale has two sections of A and B. Section A is the demographic information of the respondents such as designation and school type. Section B has two clusters of residential facilities maintenance and instructional facilities maintenance with ten items respectively. The SPMS was designed in line with four response format of Very High Extent (4), High Extent (3), Low Extent (2) and Very Low Extent (1) respectively. The second instrument, School Administration Scale (SAS) has ten items with the same demographic information and response option format as the SPMS. The instruments were face validated by three lecturers, one from Measurement and Evaluation and Two from Educational Management and Planning, Faculty of Education, University of Port Harcourt. The internal consistency reliability coefficient of School Plant Maintenance Scale (SPMS) and School

Administration Scale (SAS) determined through Cronbach are 0.77 and 0.87 respectively. Linear regression was used to answer the research questions while t-test associated with linear regression was used to test the hypotheses at 0.05 level of significance.

Results

Research question 1: To what extent can maintenance of residential school plant predict school administration in secondary schools in Rivers state?

Table 1: linear regression on the extent maintenance of residential school plant can predict school administration

Model	R	R Square	Adjusted R Square	Decision
1	.864 ^a	.746	.763	High extent

Data on table 1 revealed that the regression and regression square coefficients are 0.864 and 0.746 respectively. The predictive power is determined by the coefficient of determinism. The coefficient of determinism of 74.6% reveals that maintenance of residential school plant predicts school administration in secondary schools in Rivers state to a high extent.

Hypothesis 1: Maintenance of residential school plant cannot significantly predict school administration in secondary schools in Rivers state.

Table 2: t-test associated with linear regression on the extent maintenance of residential school plant can predict school administration

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	36.650	.404		2.00	.000
Maintenance of residential school plant	.812	.216	.864	1.930	.004

Data on table 2 reveals that the t-test value of 1.930 associated with simple regression was not rejected because the significant value of 0.004 is less than the alpha value of 0.05. Therefore, Maintenance of residential school plant significantly predicts school administration in secondary schools in Rivers state.

Research question 2: To what extent can instructional school plant predict school administration in secondary schools in Rivers state?

Table 3: linear regression on the extent can maintenance of instructional school plant predicts school administration

Model	R	R Square	Adjusted R Square	Decision
1	.769 ^a	.591	.500	High extent

Data on table 3 revealed that the regression and regression square coefficients are 0.769 and 0.591 respectively. The predictive power is determined by the coefficient of determinism. The coefficient of determinism of 59.1% reveals that maintenance of instructional school plant predicts school administration in secondary schools in Rivers state to a high extent.

Hypothesis 2: Maintenance of instructional school plant cannot significantly predict school administration in secondary schools in Rivers state.

Table 4: t-test associated with linear regression on the extent maintenance of instructional school plant can predict school administration

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	6.433	.213		3.67	.000
Maintenance of instructional school plant	.771	.302	.769	4.442	.000

Data on table 4 reveals that the t-test value of 4.442 associated with simple regression was not rejected because the significant value of 0.000 is less than the alpha value of 0.05. Therefore, maintenance of instructional school plant significantly predicts school administration in secondary schools in Rivers state.

Summary of Findings

Based on the findings of this study are summarized as shown below:

1. Maintenance of residential school plant significantly predicts school administration in secondary schools in Rivers state to a high extent.
2. Maintenance of instructional school plant significantly predicts school administration in secondary schools in Rivers state to a high extent.

Discussion of Findings

The study revealed that maintenance of residential school plant significantly predicts school administration in secondary schools in Rivers state to a high extent. The findings of this study is consistent with that of Agu (2022) reported that the insistence on hygiene, security, and furniture provision and practices are necessary for harmonious leaving in the school. In agreement with this study was Ejiofor (2023). This finding implied that residential facilities are indispensable in the school organization.

The study also revealed that maintenance of instructional school plant significantly predicts school administration in secondary schools in Rivers state to a high extent. The finding of this study is buttressed by that of Kelly (2023) who revealed that proper maintenance of available instructional facilities are instrumental in the effective instructional delivery process. More so, that of Adekunle, (2023) corroborated this study in the report that attitude to maintenance culture of school staff to instructional facilities are important in the achievement of schools' goals and objectives. The crux of this finding is that educational facility are important to especially instructional facilities in the management of human and material resources.

Conclusion

Based on the findings of this study, it was concluded that school plants maintenance can significantly predict school administration to a high extent in secondary schools in Rivers State. Specifically, maintenance of residential and instructional school plant significantly predict school administration in secondary schools in Rivers state to a high extent.

Recommendations

Based on the findings of this study, the following recommendations were made:

1. The school principals should insist on routine maintenance of school residential facilities by closely supervising the activities of the teachers in the quarters.
2. The school principals should regulate the use of instructional facilities according to need and also assign each of the facilities to a teacher for proper management.

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**INFORMATION COMMUNICATION TECHNOLOGY MANAGEMENT
AS PREDICTOR OF TEACHERS' INSTRUCTIONAL DELIVERY IN
SECONDARY SCHOOLS IN RIVERS STATE, NIGERIA**

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Abstract

The study investigated information communication technology management as predictor of teachers' instructional delivery in secondary schools in Rivers state, Nigeria. two research questions and hypotheses were answered and tested. The study adopted a correlation survey research design with a population of 8560 teachers in the 286 schools. The sample size was 856 teachers drawn through proportionate stratified random sampling technique representing 10% of the population. Two instruments, Information and Communication Technology Management Scale (ICTMS) and Effective Instructional Delivery Scale (EIDS) were used for data collection. Face validity was ensured for the instrument by three experts. The internal consistency reliability coefficient of 0.81 and 0.83 were computed for ICTMS and EIDS through Cronbach alpha. Simple regression was used to answer the research questions while t-test associated with simple regression was used to test the hypotheses at 0.05 level of significance. information and communication technology lead to effective instructional delivery in secondary school in Rivers State. Specifically, it was found that e-library and computer assisted instruction are factors of effective instructional delivery in secondary school in Rivers State. Based on the findings, the following recommendations were made that: the school principals should integrate e-library in secondary schools in Rivers State. More so, the principals should organize training and workshops for teachers on the use of computer-assisted instruction in daily instructional delivery.

Keywords: Information Communication Technology Management and instructional delivery

Introduction

Management of the school system has become a herculean task to the school administrators. This could be as a result of digitalization. Digitalization has taken a pride of place in every sector of the economy as well as in the school system. This has turned the globe into a small community where information shared can be read by all almost at the same time for those who are digitally compliant. Digitalization is the means of transmitting information into a digital form. Digitalization in simple meaning is the use of digital technologies to convey information. Digitization of education system is an opportunity to develop a cognitive resource-based mechanism in learners and improve the skills, lifelong learning and continuous education. Digitization produces information that can be conveyed in many different methods. Digitalization cannot be possible to a reasonable extent without information and communication technology.

Information and communication technology entails the use of computer hardware, network, computers and mobile phones in information and communication engagements. According to Linways (2017), Information and Communication Technology (ICT) in the school system is the use of information and communications technology to support, enhance, and optimize the delivery of information. More so, Information and Communications Technology (ICT) can enhance student learning who are under digitally literate teachers (UNESCO, 2023). It is reported that teachers who are digitally competent can use technologies to communicate instruction to the students. The most commonly used ICT system in education system are e-library and computer-based instruction.

E-library can be seen as the use of online text-materials in the educational system. Specifically, e-library is the collection of online documents in an organized digital format from the internet (Pearson India Education Services, 2022). E-library is not concrete library where books are

stacked in shelves but requires internet connectivity for it to be put to use. E-library requires good internet connectivity and sensitivity that can only be achieved through frequent services and upgrading of the internet band width (Anele, 2019). Pearson India Education Services (2022) also reported that e-learning is indispensable in the educational attainment. For effective use of e-library, computer or phone application are necessary. E-library is found to be a usable technological platform that enhance teaching and learning processes (Anele, 2019). The Pearson India Education Services further stressed that the purpose of an e-library is mainly to store, access, handle magazine articles, books, audio files, images, as well as video files. The e-library cannot be accessed without technologies such as phones and computers.

A computer is an electronic device that can be used in assisted instruction. Computer-assisted instruction according to Cotton (1991), is the use of computer in instructional delivery against the conventional traditional method. In the same vain, Ilo found (2019) found that computer assisted instruction is a significant predictor of instructional achievement. More so, Ezema (2019) reported that effective teaching can be enhanced through computer aided approach. Based on this backdrop, the researcher investigated Information communication technology management as predictor of teachers' instructional delivery in secondary schools in Rivers state, Nigeria.

Purpose of the Study

The study investigated information communication technology management as predictor of teachers' instructional delivery in secondary schools in Rivers state, Nigeria. Specifically, the study sought to:

1. find out the extent e-library can predict effective instructional delivery in secondary schools in Rivers State, Nigeria.
2. find out the extent computer-based instruction can predict effective instructional delivery in secondary schools in Rivers State, Nigeria.

Research Questions

The following research questions were answered to guide the study.

1. To what extent can e-library predict effective instructional delivery in secondary schools in Rivers State, Nigeria?
2. To what extent can computer-based instruction predict effective instructional delivery in secondary schools in Rivers State, Nigeria?

Hypotheses

The following null hypotheses were tested at 0.05 level of significance.

1. E-library does not significantly predict effective instructional delivery in secondary schools in Rivers State, Nigeria.
2. Computer-based instruction does not significantly predict effective instructional delivery in secondary schools in Rivers State, Nigeria.

Methodology

The study adopted a correlation survey research design with a population of 8560 teachers in the 286 schools. The sample size was 856 teachers drawn through proportionate stratified random sampling technique representing 10% of the population. Two instruments, Information and Communication Technology Management Scale (ICTMS) and Effective Instructional Delivery Scale (EIDS) were used for data collection. The ICTMS is a 20-item instrument that has two sections of A and B respectively. Section A was used to elicit the demographic information of the respondents. Section B has two clusters that measured E-library, and Computer-Assisted Instruction ten items to elicit information from each cluster. The EIDS was structured to have four-point response options of Very High Extent (4), High Extent (3), Low Extent (2) and Very Low Extent (1) respectively. The EIDS is a ten-item instrument. Face validity was ensured for the instrument by three experts. The internal consistency reliability coefficient of 0.81 and 0.83 were computed for ICTMS and EIDS through Cronbach alpha. Simple regression was used to answer the research questions while t-test associated with simple regression was used to test the hypotheses at 0.05 level of significance.

Results

Research Question 1: to what can e-library predict instructional delivery in secondary schools in Rivers State, Nigeria?

Table 1: simple regression of the prediction of e-library on effective instructional delivery in secondary schools in Rivers State, Nigeria

Model	R	R Square	Adjusted R Square	Decision
1	.77 ³	.59	.56	High extent

Data on Table 1 reveals that the regression value is 0.77 while the regression square value is 0.59 respectively. The extent of correlation is gotten by multiplying the regression value square by 100%. Thus, coefficient determinism of 59% reveals that e-library predicts effective instructional delivery in secondary schools in Rivers State, Nigeria to a high extent.

Research Question2: to what extent can computer-based instruction predict instructional delivery in secondary schools in Rivers State, Nigeria?

Table 2: simple regression of the prediction of computer-based instruction on effective instructional delivery in secondary schools in Rivers State, Nigeria

Model	R	R Square	Adjusted R Square	Decision
1	.87	.76	.78	High extent

Data on Table 2 reveals that the regression value is 0.87 while the regression square value is 0.76 respectively. The extent of correlation is gotten by multiplying the regression value square by 100%. Thus, coefficient determinism of 76% reveals that computer-based instruction predicts effective instructional delivery in secondary schools in Rivers State, Nigeria to a high extent.

Hypothesis 1: E-library does not significantly predict instructional delivery in secondary schools in Rivers State, Nigeria.

Table 3: t-test associated with simple regression of the prediction of e-library on effective instructional delivery in secondary schools in Rivers State, Nigeria

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Decision
	B	Std. Error	Beta			
(Constant)	6.11	2.00		2.51	.00	
E-library	.34	.66	.77	7.44	.00	Significant

P<0.05

Data on table 3 reveals that the t-test value of 7.44 associated with simple regression is rejected because the significant value of 0.00 is less than 0.05 alpha level of significance. Therefore, there is a significant prediction of E-library on instructional delivery in secondary schools in Rivers State

Hypothesis2: Computer-based instruction does not significantly predict effective instructional delivery in secondary schools in Rivers State, Nigeria.

Table 5: t-test associated with simple regression of the prediction of computer-based instruction on effective instructional delivery in secondary schools in Rivers State, Nigeria

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Decision
		B	Std. Error	Beta			
1	(Constant)	5.32	1.08		3.12	.00	
	Computer assisted instruction	.76	.65	.87	2.21	.00	Significant

P<0.05

Data on table 4 reveals that the t-test value of 2.21 associated with simple regression is rejected because the significant value of 0.00 is less than 0.05 alpha level of significance. Therefore, there is a significant prediction of computer assisted instruction on effective instructional delivery in secondary schools in Rivers State.

Discussion of Findings

The finding revealed that e-library to a high extent significantly predicted effective instructional delivery in secondary schools in Rivers State, Nigeria. The finding of this study is consistent with that of Pearson India Education Services (2022) who found that e-library is associated with educational achievement. The findings of this study is in tandem with that of Anele (2019) who revealed that e-library technological platform is necessary for school instruction. This finding showed that the use of e-library is associated with effective instructional delivery.

The study also revealed that computer-based instruction to a high extent significantly predicted effective instructional delivery in secondary schools in Rivers State, Nigeria. The finding of Ilo (2019) is in agreement with the present study that found that t computer assisted instruction is a significant predictor of instructional achievement. More so, the finding agreed with Ezema (2019), who reported that effective teaching can be enhanced through computer aided approach. Effective instructional delivery can be achieved through computer-assisted instruction because through computers, the teachers can project images, information and instruction on interactive whiteboard.

Conclusion

Based on the findings of this study, the researchers' concluded that information and communication technology lead to effective instructional delivery in secondary school in Rivers State. Specifically, it was concluded that e-library and computer assisted instruction are factors of effective instructional delivery in secondary school in Rivers State.

Recommendations

Based on the findings, the following recommendations were made that:

1. The school principals should integrate e-library in secondary schools in Rivers State.
2. The principals should organize training and workshops for teachers on the use of computer-assisted instruction in daily instructional delivery.

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PRINCIPALS' SUPERVISORY TECHNIQUES AS PREDICTORS OF TEACHERS' JOB COMMITMENT IN PUBLIC SECONDARY SCHOOLS IN RIVERS STATE

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Abstract

The study investigated principals' supervisory techniques as predictors of teachers' job commitment in public secondary schools in Rivers state. Two research questions were answered while two hypotheses were tested to guide the study. The study adopted a correlation survey research design with a population of 8560 teachers in the 286 schools. The sample size was 856 teachers drawn through proportionate stratified random sampling technique representing 10% of the population. Two instruments, Principals' Supervisory Techniques Scale (PSTS) and Teachers' Job Commitment Scale (TJCS) were used for data collection. Face validity was ensured for the instrument by three experts. The internal consistency reliability coefficient of 0.70 and 0.75 were computed for PSTS and TJCS through Cronbach alpha. Simple regression was used to answer the research questions while t-test associated with simple regression was used to test the hypotheses at 0.05 level of significance. Information and communication technology lead to effective instructional delivery in secondary school in Rivers State. Specifically, it was found that principals' supervisory techniques to a high extent are significant predictors of teachers' job commitment in public secondary schools in Rivers state. Specifically, classroom visitation and micro teaching to a high extent are significant predictors of teachers' job commitment in public secondary schools in Rivers state. Based on the findings of this study, it was recommended that principals should visit the classrooms more than twice in a week in order to increase teachers' job commitment in public secondary schools in Rivers state. More so, the principals should pair senior and junior teachers in order to encourage mentoring for teachers' job commitment in public secondary schools in Rivers state

Keywords: Principals, Supervision, Supervisory Techniques (Classroom Visitation and Micro Teaching) and Teachers' Job Commitment

Introduction

Job commitment appears to be the fulcrum for the achievement of stated goals and objectives of any organization especially in the school system. In the school system, the teachers are positioned to achieve the school goals and objectives through the instrumentality of other teaching enhancements such as the environment and teaching materials, among others. Teachers are those who are saddled with the responsibility of instructional delivery (Okorie, 2012). Therefore, teachers are those who are duty bound to carry out implementation of school curriculum. To this end, teachers are supposed to be committed and dedicated to their duties.

Job commitment is one of the attributes of a productive teacher. In the same vein, Wang (2010), opined that teaching staff commitment is considered as output records of a specific job or activity at a specific time. Teaching staff commitment is the result of specific function or activities of workers (teachers) in a given period of time. Teaching staff commitment is indistinguishable to productivity. In the opinion of Weihrich, Cannice and Koontz (2002), commitment to job is the focus on the achievement in productivity of assigned responsibility. Commitment of the teachers spread across to lesson preparation, lesson delivery and evaluation of the students as well as in co-curricular activities. Personal observation by the researcher has shown that most of these teachers in the area of the study are not showing convincing level of commitment to their job as they come to school late, avoid morning assembly, do not cover curriculum content, among others. These ugly trend in the teaching function can hinder the achievement of the goals and objectives of secondary education in the area of the study putting the school principal.

The principal is the head teacher as well as head supervisor in the senior secondary schools. In the view of Nnabuo (2001) the principal is seen as the person in the school who openly supervises the

teachers and students. He reassures and dejects certain behaviour. The principal directs the work of those under him as well as serves as a link between the school and teachers, non-teaching staff and student under him (Nnabuo, 2001). Nnabuo stressed that the principals must create a viable structure which will work independently of him and he must clarify the role of individuals. Similarly, Asodike, Kaegon, Olawulo and Amadike (2012) opined that principals are the school scenery and overall superintendent of the head teachers. They need some techniques to keep the system moving expectedly.

Techniques referred to numerous approaches of achieving something or carrying something out responsibilities especially one requiring some skills or knowledge. Abraham (2013) identified technique as methods or ways of having something done. Simply put, methods employed for the supervision of instruction (teaching and learning) for the optimal attainment of goals of education. According to Nkang (2012), techniques are specific ways or methods of performing and manipulating activities with the sole aim of achieving a desired goal. Moreover, Nkang's view for any chosen technique to be successful, it must be deemed appropriate to improve a given situation such as inter-school/ teacher visitation technique; workshop technique; guided practice technique; audio-visual technique; walk through technique; conferencing technique; demonstration technique; collegial, clinical supervisory technique, classroom visitation and micro teaching. The scholar listed the techniques of instructional supervision to include: classroom visitation; observation technique; demonstration technique; conferencing and evaluation methods.

Application of active supervisory techniques is to unswervingly guarantee job performance. In a classroom visitation, the principal as the internal supervisor visits the class and joins the tutor in the class to watch him and the students in the actual teaching and learning process. According to Abraham (2013), the supervisor (principal) watches the teacher and the students in action. The expert added that the supervisor (principal) usually sits at a corner of the class, as unnoticed as possible. He observes the teacher's methods, and other aspects of the task of teaching. Abraham stated that the classroom visitation should begin with a conference between the supervisor and supervisee. The pre-classroom visitation conference is geared towards rapport nurturance (Abraham, 2013).

One of the techniques of principals' supervisory techniques is classroom visitation. Barikor, (2005) described classroom visitation as the regular method of supervision in the classroom setting. Classroom visitation could be arranged or impromptu. Furthermore, Nkang (2012) opined that classroom visitation occurs through invitation type, announced type, and unannounced type. The professional claimed that the essence of classroom visitation is to make for an on-the-spot assessment of the teacher's and students' works. Classroom visitation creates more opportunity for teachers who deserve promotion or those who should be on in-service training. The technique forms a basis for a worthwhile professional workshop and encourages the teacher to be ever ready and always prepared (Nkang, 2012). Thus, the effective engagement of classroom visitations administrative practice by principals of municipal senior secondary schools will result in satisfactory and typical teaching staff commitment. Apparently, the method affords the principals of civic secondary schools prospect to have face-to-face interface with their teachers, correct mistakes and enhance the confidence of the teachers for overall improvement of teaching-learning processes. This consequently enhances teaching staff commitment in public senior secondary schools.

On the other hand, micro teaching is one of the methods of improving instructions. It is a supervisory technique in which a skill is specified at a time. It is practiced within a given time and one will wait for immediate feedback from the supervisor. It is scaled in terms of time, number of students, concept taught and teaching skills used. It is an attempt to use stimulation techniques to break down the teaching process into smaller and easily understood units (Olawolu & Madumere-Obike, 2011). They authors viewed micro teaching as a process which offers an opportunity for the supervisors (principals) and teachers to detect; delineate; try out; label; investigate; and retry certain teaching skills without the risk of actual teaching. According to Nnabuo in Asodike, Kaegon, Olawulo and Amadike (2012), micro teaching is seen as a modern and sophisticated method that employs a television and tape recorder installed to record the physical activities of a teacher and all that goes on when he is teaching. In the opinion of Barikor (2005) micro teaching provides a closer study or mini-setting for a more relaxed training and practice session in skill acquisition for problem solving. Usually with a programme guide for personal or group practice. Nkang (2012) explained that micro teaching is not just teaching something to a small group of students or just teaching a gathering that lasts for a few minutes, rather it is an intentional interface that focuses on preparing the tutor for a full classroom communication, furnishing him with necessary teaching skills, thus making his teaching more effective. Based on the review done in this study, it is uncertain whether principals' supervisory techniques can predict teachers' job commitment in secondary schools in Rivers State. Therefore, the

study investigated principals’ supervisory techniques can predict teachers’ job commitment in secondary schools in Rivers State.

Purpose of the Study

The study investigated principals’ supervisory techniques can predict teachers’ job commitment in secondary schools in Rivers State. Specifically, the study south to:

1. determine the extent of principals’ classroom visitation supervisory technique can predict teachers’ job commitment in public senior secondary schools in Rivers State.
2. find out the extent of principals’ micro teaching supervisory technique can predict teachers’ job commitment in public senior secondary schools in Rivers State.

Research Questions

The following research questions were answered in this study;

1. to what extent can principals’ classroom visitation supervisory technique predict teachers’ job commitment in public senior secondary schools in Rivers State?
2. to what extent can principals’ micro teaching supervisory technique predict teachers’ job commitment in public senior secondary schools in Rivers State?

Hypotheses

The following hypotheses were tested at 0.05 level of significance

1. Principals’ classroom visitation supervisory technique cannot significantly predict teachers’ job commitment in public senior secondary schools in Rivers State.
2. Principals’ micro teaching supervisory technique cannot significantly predict teachers’ job commitment in public senior secondary schools in Rivers State.

Method

The study adopted a correlation survey research design with a population of 8560 teachers in the 286 schools. The sample size was 856 teachers drawn through proportionate stratified random sampling technique representing 10% of the population. Two instruments, Principals Supervisory Technique Scale (PSTS) and Teachers’ Job Commitment Scale (TJCS) were used for data collection. The PSTS is a 20-item instrument that has two sections of A and B respectively. Section A was used to elicit the demographic information of the respondents. Section B has two clusters that measured classroom visitation, and micro teaching with ten items to elicit information from each cluster. The TJCS was structured to have four-point response options of Very High Extent (4), High Extent (3), Low Extent (2) and Very Low Extent (1) respectively. The TJCS is a ten-item instrument. Face validity was ensured for the instrument by three experts. The internal consistency reliability coefficient of 0.70 and 0.75 were computed for PSTS and TJCS through Cronbach alpha. Simple regression was used to answer the research questions while t-test associated with simple regression was used to test the hypotheses at 0.05 level of significance.

Results

Research Question 1: to what extent can principals’ classroom visitation supervisory technique predict teachers’ job commitment in public senior secondary schools in Rivers State?

Table 1: simple regression of the prediction of classroom visitation teachers’ job commitment in secondary schools in Rivers State, Nigeria

Model	R	R Square	Adjusted R Square	Decision
1	.84 ^a	.71	.70	High extent

Data on Table 1 reveals that the regression value is 0.84 while the regression square value is 0.71 respectively. The extent of correlation is gotten by multiplying the regression value square by 100%. Thus, coefficient determinism of 71% reveals that principals’ classroom visitation supervisory technique predict teachers’ job commitment in public senior secondary schools in Rivers State to a high extent.

Hypothesis 1: Principals' classroom visitation supervisory technique cannot significantly predict teachers' job commitment in public senior secondary schools in Rivers State.

Table 2: t-test associated with simple regression of the prediction of principals' classroom visitation supervisory technique cannot significantly predict teachers' job commitment in public senior secondary schools in Rivers State

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Decision
	B	Std. Error	Beta			
(Constant)	2.65	5.31		1.22	.00	
Classroom visitation	.55	.63	.84	2.19	.00	Significant

P<0.05

Data on table 2 reveals that the t-test value of 2.19 associated with simple regression is rejected because the significant value of 0.00 is less than 0.05 alpha level of significance. Therefore, there is a significant prediction of principals' classroom visitation supervisory technique on teachers' job commitment in public senior secondary schools in Rivers State.

Research Question 2: to what extent can principals' micro teaching supervisory technique predict teachers' job commitment in public senior secondary schools in Rivers State?

Table 3: simple regression of the prediction of principals' micro teaching supervisory technique on teachers' job commitment in secondary schools in Rivers State, Nigeria

Model	R	R Square	Adjusted R Square	Decision
1	.82 ^a	.67	.66	High extent

Data on Table 1 reveals that the regression value is 0.82 while the regression square value is 0.67 respectively. The extent of correlation is gotten by multiplying the regression value square by 100%. Thus, coefficient determinism of 67% reveals that principals' micro teaching supervisory technique predicts teachers' job commitment in public senior secondary schools in Rivers State to a high extent.

Hypothesis 2: Principals' micro teaching supervisory technique cannot significantly predict teachers' job commitment in public senior secondary schools in Rivers State.

Table 4: t-test associated with simple regression of the prediction of principals' micro teaching supervisory technique on teachers' job commitment in public senior secondary schools in Rivers State

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Decision
	B	Std. Error	Beta			
1 (Constant)	2.97	5.77		1.53	.00	
Micro teaching	.80	.73	.82	2.36	.00	Significant

P<0.05

Data on table 4 reveals that the t-test value of 2.36 associated with simple regression is rejected because the significant value of 0.00 is less than 0.05 alpha level of significance. Therefore, there is a significant prediction of principals' micro teaching supervisory technique on teachers' job commitment in public senior secondary schools in Rivers State.

Summary of the Findings

The findings of this study are as follows:

1. Principals' classroom visitation supervisory technique to a high extent is significant predictor of teachers' job commitment in public secondary schools in Rivers state.

2. Principals' micro teaching supervisory technique to a high extent is significant predictor of teachers' job commitment in public secondary schools in Rivers state.

Discussion of the Findings

The finding of the study revealed that principals' classroom visitation supervisory technique to a high extent is significant predictor of teachers' job commitment in public secondary schools in Rivers state. This finding is in agreement with that of Okorie (2012) who found that classroom visitation supervisory technique can lead to effective teaching. The finding of this study is in tandem with Olawolu and Madumere-Obike (2011) who reported that classroom visitation is a corrective measure that can help teachers' development in the understanding of various units of instruction. The finding of this study implied that the more there is classroom visitation, the more committed the teachers will be in towards job performance.

The study also revealed that principals' micro teaching supervisory technique to a high extent is significant predictor of teachers' job commitment in public secondary schools in Rivers state. The finding of this study is in line with that of Nkang (2012) who affirmed that micro teaching supervisory technique is very effective apparatus in inspiring and reassuring tutors' growth. In the same vein, Sule (2013) opined that principal's micro supervisory technique can lead to teaching staff. Effectiveness. Micro teaching is found to be very important in teaching commitment. This implies that proper organized micro teaching practice is necessary for the teachers to maintain job commitment in secondary school in Rivers state.

Conclusion

Based on the findings of this study, it was concluded that principals' supervisory techniques to a high extent are significant determinants of teachers' job commitment in public secondary schools in Rivers state. Specifically, classroom visitation and micro teaching to a high extent are indispensable factors of supervision in enhancing teachers' job commitment in public secondary schools in Rivers state.

Recommendations

Based on the findings of this study, the following recommendations were made:

1. The principals should visit the classrooms more than twice in a week in order to increase teachers' job commitment in public secondary schools in Rivers state.
2. The principals should pair senior and junior teachers in order to encourage mentoring for teachers' job commitment in public secondary schools in Rivers state

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SCHOOL PLANT MANAGEMENT AS A PREDICTOR OF SCHOOL ADMINISTRATION IN SECONDARY SCHOOLS IN NSUKKA EDUCATION ZONE

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Abstract

The study investigated school plant management as a predictor of effective school administration in secondary schools in Nsukka Education Zone. The study adopted a correlational research design. The population of 45 public principals in Nsukka Education Zone. The population of 45 public principals in Nsukka Education Zone was used as the sample because it is small and manageable. There was no sampling technique. The School Plant Management Questionnaire (SPMQ) and Effective School Administration Questionnaire (ESAQ) were used for data collection. The instruments were face validated by three experts. The internal consistency reliability coefficient was computed through Cronbach alpha method and the reliability coefficients of 0.80 and 0.73 were obtained for ESAQ and SPMQ respectively. Linear regression was used to answer the research questions while t-test was used to test the null hypotheses at 0.05 level of significance. It was revealed that instructional and residential facilities management independently predicted effective school administration in secondary schools in Nsukka Education Zone to a very high extent. Based on the findings of this study, the following recommendations were made that: the school principals should supervise the use of instructional facilities teachers. The teachers should be made to sign an agreement by the principals on the use of the residential facilities in order to guide their conducts. The principals should employ ad hoc staff who can assist in the cleaning of the health facilities after usage.

Keywords: School Plant, Management, Effective School Administration

Introduction

Effective school administration is the hallmark of the establishment of the school system. This suggests that school administration is indispensable in the growth and development of the school system. School administration can be seen as the day-to-day operations of educational institutions. According to (Uzonna, 2022), school administration involves the management of the various school resources for the achievement of goals and objectives (Ebuehi, 2023). Ebuehi further stressed that educational administration is the management of the school programmes and activities. It involves providing leadership for the education of students, developing curricula, implementing assessments and managing human and material resources to achieve specific goals. Effective school administration entails the realization of the lofty goals and objectives. Effective school administration encompasses leadership, effective communication, commitment, social interaction, persuasion, empowerment, proper assignment of task, acting decisively, management of risk (Prestone, 2023). Personal observation as a teacher showed that most the school administrators are not effective in their administrative functions. It also includes the management of processes within a school system to ensure the achievement of particular outcomes

In this study, school administration can be seen as principals' management of teachers, students and school facilities for the achievement of educational goals and objectives. The principals in this context are duly referred to as the school administrators. The school principals help to provide a safe and high-quality learning environment and educational experience for students. More so, they oversee teachers teaching methods, disciplining of students, process of curriculum implementation,

setting of rules and security procedures, monitoring of students' achievement data, handling of the school budget and communicating processes (Oguejiofor, 2023). More so, they carry out the functions of paying deep insight into the problems of provision and maintenance of play materials, library, and other co-curricular activities, hostel building and equipment among others (Bordia, 2022). The author stressed that these facilities are necessary for the functioning of the administration of educational institution (Bordia, 2022).

Educational facilities portend great importance in the teaching and learning processes. Educational facilities can be seen as those facilities needed for educational purposes. They are usually designed and procured for direct teaching and learning. These facilities ranged from classrooms, classroom seats, laboratories, libraries, experimental equipment, chalkboard, audio-visual learning equipment, health, and residential facilities. Owing to the scarcity yet importance of educational facilities, Moore (2004) warned that it should be used for their specific purpose in order to record maximum usage.

Shortage of educational facilities has been a major bane of the educational systems in Nigeria. The role of educational facilities cannot be overemphasized. There is a need to provide financial assistance for the construction of new school buildings, classrooms, laboratories, Hostels etc. to cultivate and enable the youth to develop to full potential. It is believed that most of academic success and achievement can be traceable to the level of availability of educational facilities. This is an indication that educational facilities are needed in the school programmes and activities.

The residential facility is as important as every other facility. The residential facility can be seen as the facility provided for the teachers or students for their day-to-day activities by the school in order to ease the cost of house rent and proximity to the school. According to Prestone (2023), residential facilities are found to be very significant facilities in the school system. It was reported that residential infrastructural facilities have a significant combined influence on teachers' job satisfaction and performance in both public and private secondary schools (Akinkuade, & Oredein, 2021). Furthermore, residential facilities were found to be relevant in teachers' job satisfaction (Oguejiofor, 2023). Close to the residential facility is the health facility.

Healthcare facilities are those that are built for the sake of attending to staff or student that is sick. It is formally called the hospitals, health centres, school clinic or sick bay. It provides avenue for treatment of sick members of the educational institution. Report has it that residential facilities and services are germane for the actualization of the school goals and objectives (Oguejiofor, 2023). Oguejiofor further stressed that health facilities are necessary for health insurance to school personnel. From the backdrop, it is worthy to report that there is ineffectiveness in the administration of schools in Nsukka Education Zone. The possible causative factors are yet to be unraveled. The researchers suggest that there could be the possibility of school plant mismanagement in the recorded ineffectiveness in the administration of schools in Nsukka Education Zone. Therefore, the study investigated the relationship between school plant management and effective school administration in secondary schools in Nsukka Education Zone.

Purpose of the Study

The study aimed to investigate the extent school plant management can predict effective school administration in secondary schools in Nsukka Education Zone. Specifically, the study sought to:

1. find out the extent instructional facilities management can predict effective school administration in secondary schools in Nsukka Education Zone.
2. determine the extent residential facilities management can predict effective school administration in secondary schools in Nsukka Education Zone.
3. ascertain the extent health educational facilities management can predict effective school administration in secondary schools in Nsukka Education Zone.

Research Questions

The following research questions were answered in this study:

1. what is the extent to which instructional facilities management can predict effective school administration in secondary schools in Nsukka Education Zone?
2. To what extent can residential facilities management predict effective school administration in secondary schools in Nsukka Education Zone?
3. what is the extent to which health educational facilities management can predict effective school administration in secondary schools in Nsukka Education Zone?

Hypotheses

The following hypotheses were tested at 0.05 level of significance

1. instructional facilities management does not significantly predict effective school administration in secondary schools in Nsukka Education Zone.
2. residential facilities management does not significantly predict effective school administration in secondary schools in Nsukka Education Zone.
3. health educational facilities management does not significantly predict effective school administration in secondary schools in Nsukka Education Zone.

Methodology

The study adopted a correlational research design. The population of 45 public principals in Nsukka Education Zone. A population of 45 was used as the sample because it is small and manageable. There was no sampling technique. The instrument titled School Plant Management Questionnaire (SPMQ) and Effective School Administration Questionnaire (ESAQ) were used for data collection. The School Plant Management Questionnaire (SPMQ) is a 30 instrument with two sections. The first section was used to elicit demographic information of the respondents while the second section has three clusters to measure instructional, residential and health educational facilities with ten items respectively. The instruments were face validated by three experts, two from educational administration and planning, Department of Educational Foundations while the other was from Measurement and Evaluation Unit, Science Education, all from the University of Nigeria Nsukka. The internal consistency reliability coefficients were computed through Cronbach alpha method and the reliability coefficients of 0.80 and 0.73 for ESAQ and SPMQ respectively. Linear regression was used to answer the research questions while t-test was used to test the null hypotheses at 0.05 level of significance.

Results

Research question 1: To what extent does instructional facilities management predict effective school administration in secondary schools in Nsukka Education Zone?

Table 1: linear regression on the extent instructional facilities management can predict effective school administration

Model	R	R Square	Adjusted R Square	Decision
1	.889 ^a	.790	.781	Very high prediction

Decision rule: 100-75% (Very High Extent), 75-50% (High Extent), 50-25% (Low Extent) 25-0% (Very Low Extent)

Data on Table 1 revealed that the regression and regression square coefficients are 0.889 and 0.790 respectively. The predictive power is determined by the coefficient of determinism. The coefficient of determinism of 79.0% reveals that instructional facilities management predicts effective school administration in secondary schools in Nsukka Education Zone to a very high extent.

Hypothesis 1: there is no significant relationship between instructional facilities management and effective school administration in secondary schools in Nsukka Education Zone.

Table 2: t-test associated with linear regression of the relationship between instructional facilities management and effective school administration

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.693	.727		1.954	.001
	Instructional facilities management	.887	.022	.889	5.865	.000

Data in Table 2 reveals that the t-test value of 5.865 associated with simple regression is rejected because the significant value of 0.00 is less than the alpha value of 0.05. Therefore, there is no significant prediction between instructional facilities management and effective school administration in secondary schools in Nsukka Education Zone.

Research question 2: To what extent does residential facilities management predict effective school administration in secondary schools in Nsukka Education Zone?

Table 3: linear regression on the extent instructional facilities management can effective school administration

Model	R	R Square	Adjusted R Square	Decision
1	.850 ^a	.724	.700	Very high prediction

Data on Table 3 revealed that the regression and regression square coefficients are 0.850 and 0.724 respectively. The predictive power is determined by the coefficient of determinism. The coefficient of determinism of 72.4% reveals that residential facilities management predicts effective school administration in secondary schools in Nsukka Education Zone to a very high extent.

Hypothesis 2: residential facilities management does not significantly predict effective school administration in secondary schools in Nsukka Education Zone.

Table 4: t-test associated with linear regression on the relationship between residential facilities management and effective school administration

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.667	.756		7.560	.000
	residential facilities management	.885	.045	.850	23.777	.000

Data on Table 4 reveals that the t-test value of 23.777 associated with simple regression is rejected because the significant value of 0.00 is less than the alpha value of 0.05. Therefore, residential facilities management significantly predicts effective school administration in secondary schools in Nsukka Education Zone.

Research question 3: what is the extent to which health educational facilities management can predict effective school administration in secondary schools in Nsukka Education Zone?

Table 5: linear regression of the extent health educational facilities management and predict effective school administration

Model	R	R Square	Adjusted R Square	Decision
1	.791 ^a	.625	.621	High prediction

Data on Table 5 revealed that the regression and regression square coefficients are 0.791 and 0.625 respectively. The predictive power is determined by the coefficient of determinism. The coefficient of determinism of 62.5% reveals that health educational facilities management can predict effective school administration in secondary schools in Nsukka Education Zone to a high extent.

Hypothesis 3: health educational facilities management does not significantly predict effective school administration in secondary schools in Nsukka Education Zone.

Table 6: t-test associated with linear regression of the health educational facilities management can predict effective school administration

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	55.231	8.776		6.032	.000
Health educational facilities management	.781	.212	.791	6.529	.000

Data in Table 6 reveals that the t-test value of 6.529 associated with simple regression was rejected because the significant value of 0.00 is less than the alpha value of 0.05. Therefore, health educational facilities management can significantly predict effective school administration in secondary schools in Nsukka Education Zone.

Discussion of Findings

The study reveals that instructional facilities management can significantly predict effective school administration in secondary schools in Nsukka Education Zone to a very high extent. The finding of this study is in agreement with that of Prestone (2023) who found that residential facilities are significant in the school system. Furthermore, the study of Akinkuade, and Oredein (2021) affirmed the finding of this study that residential infrastructural facilities have a significant combined influence on teachers' job satisfaction and performance in both public and private secondary schools. Furthermore, in support of the findings of this study, it was reported that residential facilities were relevant to teachers' job satisfaction.

The finding also revealed that residential facilities management can significantly predict effective school administration in secondary schools in Nsukka Education Zone to a very high extent. The finding of this study is in tandem with Oguejiofor (2023) who revealed that residential facilities are germane for the actualization of the school goals and objectives.

The finding revealed that health educational facilities management can significantly predict effective school administration in secondary schools in Nsukka Education Zone to a high extent. The finding of this study is buttressed by Allensworth, Lawson, Nicholson et al. (1997) who found that health facilities can provide health insurance to school personnel. This is because healthcare facilities are necessary for attending to staff or students who are sick.

Conclusion

Based on the findings of this study, the researchers concluded that school plant management can predict effective school administration in secondary schools in Nsukka Education Zone to a very high extent. Specifically, instructional, residential and residential facilities management can independently predict effective school administration in secondary schools in Nsukka Education Zone to a very high extent.

Recommendations

Based on the findings and conclusion of this study, the following recommendations were made that:

1. The school principals should supervise the use of instructional facilities for teachers in secondary schools in Nsukka Education Zone.
2. The teachers should be made to sign an agreement by the principals on the use of the residential facilities in order to guide their conduct.
3. The principals should employ ad hoc staff who can assist in the cleaning of the health facilities after usage.

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**SCHOOL SAFETY PRACTICES AS PREDICTORS OF EFFECTIVE
INSTRUCTIONAL DELIVERY IN SECONDARY SCHOOLS IN
OBOLLO-AFOR EDUCATION ZONE**

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Abstract

The study investigated school safety practices as predictors of effective instructional delivery in secondary schools in Obollo-Afor Education Zone. The study adopted a correlation research design. The population of the study was 2,250 teachers in the 50 secondary schools in the zone. The sample size was 250 teachers drawn through simple random sampling technique. The School Safety Practices Scale (SSPS) and Effective Instructional Delivery Scale (EIDS) were used for data collection. The instruments were face validated by three experts. The internal consistency reliability coefficients of 0.72 and 0.73 were computed for SSPS and EIDS through Cronbach alpha. Linear regression was used to answer the research questions while t-test associated with linear regression was used to test the null hypotheses at 0.05 level of significance. The researchers found that school safety practices can significantly predict effective instructional delivery. Specifically, it was concluded that environmental and human security information practices are reliable and valid strategies of improving effective instructional delivery. It was recommended that the school administration should device environmental protection measures such as the use of close circuit television (CCTV), employment of security personnel and the building of perimeter fence around the school. The proper security communication channel should be floated in order to ensure quick dissemination of security information within a short possible time.

Keywords: School Safety Practices, Effective Instructional Delivery and Secondary Schools

Introduction

The achievement of the goals and objectives of secondary schools to a large extent can be attributed to effective instructional delivery by the teachers. Instructional delivery can be seen as the discharging of lessons to the students in a formal school environment. Instructional delivery according to Igwebuike (2022) is the formal interaction between the students and the teacher in the process of impacting knowledge. More so, instructional delivery entails the teaching of subject content to the learners in the formal school setting (Obiomma, 2022). Instructional delivery in the context of this study is the discharge of teaching responsibilities through the impartation of knowledge to the students by teachers in secondary schools in Obollo-Afor Education zone of Enugu State. Teachers who deliver instruction in their statutory teaching functions are expected to carry out the teaching and preparatory functions of lesson preparation, character molding, classroom control and management, assessment and evaluation of the process (Nwafor, 2019). Teachers are effective when they can achieve the stated objectives of the learning. According to Adekunle (2023), instructional effectiveness denotes the ability to actualize the stated goals and objectives of the school system. It could also be seen as the display of content knowledge mastery in instructional delivery processes (Ede, 2022). It is empirically proven by Akpan (2022) that most of the public-school teachers do not frequently cover their instructional content. In the same vein, Maduka (2022) reported that some teachers in public secondary schools are not punctual to their instructional responsibilities. The case of teachers in Obollo-Afor education zone is no exemption as personal experience has shown that they really cover the school syllabus for the term. Most of these teachers are also seen staying away from active teaching and co-curriculum activities. These could be attributed to so many factors such as teachers'

psychological dispositions, job related challenges and leadership developments. The researcher is of the view that safety practices could become a factor in the underperformance of teachers in their instructional delivery.

Safety is one of the practices that can bring about conducive work environment. We live in an age where there are increasing cases of safety and security threats to schools. Reports of robbery, kidnapping, rape, sexual harassment, fire, diseases and building collapses bring the issue to the front burner. Safety according to (Ndubueze, 2022) consciousness to stay away from hazards and dangers such as threat and injury or harm. This shows that safety from hazards and dangers in the school can be referred as school safety. School safety can be seen as school-related practices that enable the school to stay safe from every form of school associated threat or danger (Musa, 2023). It can also be defined as a situation where the school is shielded from external or internal aggressions (Okiro, 2022). School safety in the same line of thought is the deliberate efforts to prevent accidents and hazards in the school system (Maduka, 2023). The practice of school safety could be focused on the environmental protection practice and human security information practices.

The school environmental security protection practices are those that save the school environment from impeding dangers. School environmental security activities can be seen as an act that shield the school environment from any form of attack and invasion (Echefu, 2022). These practices are in the environment ranged from building of perimeter fence, burglary proofs, security personnel, electronic cameras and proper sighting of the schools in a safe location (Muhammed, 2022). In the context of this work, school environmental security protection entails all the practices put in place to ensure safety of life and property. The work of Adenuga (2023) revealed that environmental protection measures are necessary for effective school organization. More so, Sani (2022) showed that a safe environment is a determinant of teachers' job commitment. The protection practices in the environment cannot be effective without appropriate human safety information practices.

Human security information practices are essential in security system of the school. Human security information practices can be seen as the ability to receive, supervise and manage security information at every point in time (Ohia, 2019). In the school system, it donates the ability to get the information of the students, teachers, class activities, clock in and out as well as the programmes of the day (Yemi, 2019). In the context of this study, human security information practice is the ability of the teachers to monitor, supervise and manage every segment of the security information system for the betterment of the school programmes and activities. A recent study by Awo (2023) revealed that schools across the Nigerian states are faced with a lot of security challenges that are posing serious threat to the actualization of their school calendar. In response to the above security challenges, Omogbolagun (2022) reported that human consciousness and alertness to security information details can reduce the incidences to a great extent. In the same light, Ugwu (2022) found that proper application of security network in the school can improve the school security reports. In line with above assertion, it was noted that this can be possible through regular inspection school routes, displaying of emergency numbers, inspection of school bus and the contraction of other security outfits (Omogbolagun, 2022). Security issues in the area may be associated with ineffective instructional delivery in secondary schools in Obollo-Afor Education Zone. Based on the backdrop of this study, the researcher investigated school safety practices as to determine the extent to which it will predict effective instructional delivery in secondary schools in Obollo-Afor Education Zone.

Purpose of the Study

The study aimed at investigating school safety practices as predictors of effective instructional delivery in secondary schools in Obollo-Afor Education Zone. Specifically, the study sought to determine:

1. the extent environmental protection practice predicts effective instructional delivery in secondary schools in Obollo-Afor Education Zone.
2. the extent human security information practice can predict effective instructional delivery in secondary schools in Obollo-Afor Education Zone.

Research Questions

The following research questions were answered in the study.

1. To what extent does environmental protection practice predict effective instructional delivery in secondary schools in Obollo-Afor Education Zone?
2. To what extent does human security information practice predict effective instructional delivery in secondary schools in Obollo-Afor Education Zone?

Hypotheses

1. Environmental protection practice does not significantly predict effective instructional delivery in secondary schools in Obollo-Afor Education Zone.
2. Human security information practice does not significantly predict effective instructional delivery in secondary schools in Obollo-Afor Education Zone.

Methods

The study adopted a correlation research design. The study adopted a correlation research design. The population of the study was 2,250 teachers in the 50 secondary schools in the zone. The sample size was 250 teachers drawn through simple random sampling technique by selecting five teachers each from the 50 schools. The School Safety Practices Scale (SSPS) and Effective Instructional Delivery Scale (EIDS) were used for data collection. The School Safety Practices Scale (SSPS) has two sections of A and B. The section A contains the demographic information of the respondents while section B contains 20 items to measure environmental protection practices and human security information practices with 10-item respectively. The School Safety Practices Scale (SSPS) was structured with four-point response options of Very High Extent (4), High Extent (3), Low Extent (2) and Very Low Extent (1) respectively.

The second instrument, Effective Instructional Delivery Scale (EIDS) is a 10-item measure with two sections of A and B measured effective instructional delivery. The Effective Instructional Delivery Scale (EIDS) was structured with four-point response options of Very High Extent (4), High Extent (3), Low Extent (2) and Very Low Extent (1) respectively. The instruments were face validated by three experts, two from the Educational Planning Unit, Department of Educational Foundations and one from Measurement and Evaluation Unite, Science Education Department, all from the Faculty of Education, University of Nigeria Nsukka. The internal consistency reliability coefficients of 0.72 and 0.73 were computed for SSPS and EIDS through Cronbach alpha. Linear regression was used to answer the research questions while t-test associated with linear regression was used to test the null hypotheses at 0.05 level of significance.

Results

Research Question 1: To what extent does environmental protection practice predict effective instructional delivery in secondary schools in Obollo-Afor Education Zone?

Table 1: linear regression extent environmental protection practice predicts effective instructional delivery

Model	R	R Square	Adjusted R Square	Decision
1	.779 ^a	.607	.601	High prediction

Data on table 1 revealed that the regression and regression square coefficients are 0.779 and 0.607 respectively. The predictive power is determined by the coefficient of determinism. The coefficient of determinism of 60.7% reveals that environmental protection practice predict effective instructional delivery in secondary schools in Obollo-Afor Education Zone to a high extent.

Hypothesis 1: Environmental protection practice does not significantly predict effective instructional delivery in secondary schools in Obollo-Afor Education Zone.

Table 2: t-test associated with linear regression extent environmental protection practice predicts effective instructional delivery

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	51.00	7.870		7.132	.000
	Environmental protection practice	.601	.112	.779	9.009	.000

Data on table 2 reveals that the t-test value of 9.009 associated with simple regression was rejected because the significant value of 0.00 is less than the alpha value of 0.05. Therefore, environmental protection practice significantly predicted effective instructional delivery in secondary schools in Obollo-Afor Education Zone.

Research Question 2: To what extent does human security information practice predict effective instructional delivery in secondary schools in Obollo-Afor Education Zone?

Table 3: linear regression of the extent human security information practice predicts effective instructional delivery

Model	R	R Square	Adjusted R Square	Decision
1	.800 ^a	.640	.633	High extent

Data on table 3 revealed that the regression and regression square coefficients are 0.800 and 0.640 respectively. The predictive power is determined by the coefficient of determinism. The coefficient of determinism of 64% reveals that human security information practice predict effective instructional delivery in secondary schools in Obollo-Afor Education Zone to a high extent.

Hypothesis 4: Human security information practice does not significantly predict effective instructional delivery in secondary schools in Obollo-Afor Education Zone.

Table 4: t-test associated with linear regression of the extent human security information practice predicts effective instructional delivery

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	35.995	.449		80.201	.000
	Human security information practice	.634	.015	.800	2.341	.021

Data on table 4 reveals that the t-test value of 2.341 associated with simple regression was rejected because the significant value of 0.021 is less than the alpha value of 0.05. Therefore, human security information practice significantly predicted effective instructional delivery in secondary schools in Obollo-Afor Education Zone.

Discussion of Findings

The finding of the study revealed that environmental protection practice significantly predicted effective instructional delivery in secondary schools in Obollo-Afor Education Zone. The finding of this study is buttressed by the work of Adenuga (2023) which revealed that environmental protection measures are necessary for effective school organization. More so, the findings of Sani (2022) corroborated that of this study that a safe environment is a determinant of teachers' job commitment. The finding of this study is stemming from the position that environmental protection practices cannot be effective without appropriate human safety information practices.

The finding of the study revealed that human security information practice significantly predicted effective instructional delivery in secondary schools in Obollo-Afor Education Zone. This finding is consistent with that of Omogbolagun (2022) who submitted that human consciousness and alertness to security information details can reduce the incidences to a great extent. In the same light, Ugwu (2022) found that proper application of security network in the school can improve the school security reports. In line with above assertion, it was noted that this can be possible through regular inspection school routes, displaying of emergency numbers, inspection of school bus and the contraction of other security outfits.

Conclusion

Based on the findings of this study, the researchers concluded that school safety practices can significantly predict effective instructional delivery in secondary schools in Obollo-Afor Education Zone. Specifically, it was concluded that environmental and human security information practices are

reliable and valid strategies of improving effective instructional delivery in secondary schools in Obollo-Afor Education Zone.

Recommendations

Based on the findings and conclusion of this study, the following recommendations were made:

1. The school administration should device environmental protection measures such as the use of close circuit television, employment of security personnel and the building of perimeter fence around the school.
2. The proper security communication channel should be floated in order to ensure quick dissemination of security information within a shortest possible time.

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**PRINCIPALS' JOB ENRICHMENT PRACTICES AS PREDICTORS
OF TEACHERS' QUALITY INSTRUCTIONAL DELIVERY IN
SECONDARY SCHOOLS IN RIVERS STATE NIGERIA**

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Abstract

The study investigated principals' job enrichment practices as predictors of teachers' quality instructional delivery in secondary schools in Rivers State, Nigeria. Two research questions and hypotheses guided the study. The study adopted a correlation research design with a population of 8620 teachers in 285 schools in Rivers state. The sample size of the study is 862 teachers in 26 secondary schools representing 10% of the population. The sample size was arrived at through simple random sampling technique. Two instruments, Principals' Job Enrichment Practices Questionnaire (PJEPQ) and Teachers' Instructional Delivery Questionnaire (TIDQ) were used for data collection. The instruments were face validated by three experts. The internal consistency reliability coefficients of 0.88 and 0.87 were computed for PJEPQ and TIDQ through Cronbach alpha method. Linear regression was used to answer the research questions while t-test associated with linear regression was used to test the hypotheses at 0.05 level of significance. The study revealed that there is a significant high positive prediction of motivation on teachers' instructional delivery in secondary schools in Rivers State, Nigeria. More so, there is a significant high positive prediction of teachers' engagement on their instructional delivery in secondary schools in Rivers State, Nigeria. The researchers recommended that teachers should be motivated based on need areas by the principals in order to enhance quality instructional delivery. More so, responsibilities should be assigned to the teachers by the principals based on their functional abilities.

Keywords: Job Enrichment Practices and Teachers' Quality Instructional Delivery

Introduction

The quality of education in the recent past seems not to be palatable and such has been bemoaned by educational stakeholders. This perceived state of affair by the researchers is worrisome because of the enormous importance ascribable to quality instructional delivery in secondary schools in the realization of the noble goals and objectives. Quality depicts the required standard for acceptable product. More so, quality can be seen as the degree to which an activity, person, object or entity meet the defined requirements. In the educational system, it can be seen as the measure to assume excellence in the instructional process. Quality instruction can be seen as the instruction that passed through the required instructional preparation standard. This means that quality instruction is one that has the expectations of instructional preparations such as lesson preparation, content coverage and effective assessment measures (Mojeed, 2023). Mojeed further explained that quality instruction is one that is prepared by a qualified teachers who with the application of content experience, training, and available instructional and learning environment. Quality instruction can be delivered in the educational system in order to achieve the instructional purposes. Quality instructional delivery entails all that happens in the process of lesson preparation and delivery. It implies effective interaction that exists in the classroom among the teachers, students and classroom environment (Agbo, 2023). Quality instructional delivery can be seen as a mix of job enrichment practices.

The enrichment of job in an organization is posited to be very much expected at every point in the job's responsibility. Job enrichment can be seen as the addition of new dimensions to existing jobs in order to enhance encouragement of the employee (Sanda, Asikhia, & Magaji, 2015). Sanda, Asikhia, and Magaji added that job enrichment involves adding extra tasks (also called job

enlargement), increasing skill variety, adding meaning to jobs, creating autonomy, and giving feedback. Job enrichment can be seen as a tool that can be used to get employees committed to their job demands. In the same vein, job enrichment involves creating meaningful roles through feedback, encouragement, communication, and autonomy. Managers who focus on job enrichment focus on creating jobs with meaning (Valier, 2023). Job enrichment entails the various approaches to improve the job in its entirety in the work place (Vijay & Indradevi, 2015). According to Vijay and Indradevi, creating a work culture based on psychological safety at work where managers encourage a growth mindset and employees strive to take on more responsibility. This implies that job enrichment is a technique used by an organization to promote work life balance as well as the performance of employees. Job enrichment is important because it leads to job satisfaction, commitment, engagement and possibly job productivity.

The principals can enrich jobs in different areas. The easily applicable ones are motivation and engagement. Motivation is seen as the provision of incentives or forces to complete an assigned task. Motivation according to Betterhelp (2023), motivation is the process that initiates and maintains certain behaviors needed to achieve goals. Betterhelp further explained that motivation entails the driving force behind every action and is often used to describe why someone does anything. According to Cherry (2023), motivation is the force behind our actions. Cherry further reported that motivation is associated with teaching effectiveness. In the same vein, Betterhelp (2023) submitted that work motivation is a determinant of employees' satisfaction and commitment. Motivation cannot be disassociated from job engagement.

Job engagement is necessary for the achievement of the organizational goals and objectives. the level of enthusiasm and dedication a worker feels toward their job (Smith, 2022). Work engagement is a positive and complete emotional and cognitive state related to work, associated with the characteristics of persistence and dispersion (Li & Ling, 2007; Aldabbas, Pinnington, & Lahrech, 2021). Based on findings from previous studies, there remains debate regarding the relationship between job involvement and job performance. Some researchers have proposed that with an increase of work engagement, employee emotional, cognitive and forward-looking behaviors will positively improve, which will also lead to an increase in job performance (Wang and Chen, 2020). Similarly, Yao, Qiu, Yang, Han and Li (2022) found that there is a relationship between work engagement and job performance. Based on the review done, it is believed that job organization can lead to teachers' commitment. It is not clear whether principals' job enrichment practices as predictors of teachers' quality instructional delivery. The researchers therefore, investigated to find out in principals' job enrichment practices as predictors of teachers' quality instructional delivery secondary schools in Rivers state Nigeria.

Purpose of the study

The study investigated principals' job enrichment practices as predictors of teachers' instructional delivery in secondary schools in Rivers State, Nigeria. Specifically, the study sought to:

1. Find out the prediction of motivation on teachers' instructional delivery in secondary schools in Rivers State, Nigeria.
2. Determine the prediction of teachers' engagement on their teachers' instructional delivery in secondary schools in Rivers State, Nigeria.

Research Questions

The following research questions were answered in this study.

1. What is the prediction of motivation on teachers' instructional delivery in secondary schools in Rivers State, Nigeria?
2. What is the prediction of teachers' engagement on their teachers' instructional delivery in secondary schools in Rivers State, Nigeria?

Hypotheses

The following hypotheses were tested at 0.05 level of significance

1. Motivation does not significantly predict teachers' instructional delivery in secondary schools in Rivers State, Nigeria.
2. Teachers' engagement does not significantly predict their teachers' instructional delivery in secondary schools in Rivers State, Nigeria.

Methods

The study adopted a correlation research design with a population of 8620 teachers in 285 schools in Rivers state. The sample size of the study is 862 teachers in 26 secondary schools representing 10% of the population. The sample size was arrived at through simple random sampling technique. Two instruments, Principals' Job Enrichment Practices Questionnaire (PJPQ) and Teachers' Instructional Delivery Questionnaire (TIDQ) were used for data collection. The Principals' Job Enrichment Practices Questionnaire (PJPQ) has two sections of A and B. Section A was used to elicit demographic information of the respondents such as designation and names of schools while section B has 20 items with ten items measuring motivation and teachers' engagement respectively. The Principals' Job Enrichment Practices Questionnaire (PJPQ) was structured to have four response options of Strongly Agree (4), Agree (3), Disagree (2) and Strongly Disagree (1). The second instrument, Teachers' Instructional Delivery Questionnaire (TIDQ) has ten items with four response options of Strongly Agree (4), Agree (3), Disagree (2) and Strongly Disagree (1). The instruments were face validated by three experts. Two of them are from Educational Management and Planning, University of Nigeria and the other from Measurement and Evaluation, from Department of Educational Psychology, Guidance and Counselling, University of Port Harcourt. The internal consistency reliability coefficients of 0.88 and 0.87 were computed for PJPQ and TIDQ through Cronbach alpha method. Linear regression was used to answer the research questions while t-test associated with linear regression was used to test the hypotheses at 0.05 level of significance.

Results

Research question 1: What is the prediction of motivation on teachers' instructional delivery in secondary schools in Rivers State, Nigeria?

Table 1: linear regression analysis of the prediction of motivation on teachers' instructional delivery

Model	R	R Square	Adjusted R Square	Decision
1	.864 ^a	.746	.746	High positive prediction

Table 1 revealed that the regression coefficient (R) is given as 0.864 while the regression square coefficient is given as 0.746 respectively. The regression coefficient of 0.864 revealed that there is a high positive prediction of motivation on teachers' instructional delivery in secondary schools in Rivers State, Nigeria. This implied that an increase in motivation leads to an increase in teachers' instructional delivery in secondary schools in Rivers State, Nigeria.

Hypothesis 1: Motivation does not significantly predict teachers' instructional delivery in secondary schools in Rivers State, Nigeria.

Table 2: t-test associated with linear regression analysis of the prediction of motivation on teachers' instructional delivery

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Decision
		B	Std. Error	Beta			
1	(Constant)	6.34	.96		6.65	.00	
	Motivation	.83	.03	.864	30.55	.00	Significant

P<0.05

Table 2 revealed that t-test associated with simple regression is given as 30.55. The hypothesis is rejected because the probability value of 0.00 is less than the alpha level of 0.05. This implied that motivation significantly predicts teachers' instructional delivery in secondary schools in Rivers State, Nigeria.

Research question 2: What is the prediction of teachers' engagement on their instructional delivery in secondary schools in Rivers State, Nigeria?

Table 3: linear regression analysis of the prediction of motivation on teachers' instructional delivery

Model	R	R Square	Adjusted R Square	Decision
1	.825 ^a	.680	.679	High positive correlation

Table 3 revealed that the regression coefficient (R) is given as 0.825 while the regression square coefficient is given as 0.680 respectively. The regression coefficient of 0.825 revealed that there is a high positive prediction of teachers' engagement on their instructional delivery in secondary schools in Rivers State, Nigeria. This implied that an increase in teachers' engagement leads to an increase in their instructional delivery in secondary schools in Rivers State, Nigeria.

Hypothesis 2: Teachers' engagement does not significantly predict their teachers' instructional delivery in secondary schools in Rivers State, Nigeria.

Table 4: t-test associated with linear regression analysis of the prediction of motivation on teachers' instructional delivery

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Decision
	B	Std. Error	Beta			
(Constant)	9.05	1.02		8.87	.00	
1 Teachers' engagement	.79	.03	.83	25.97	.00	Significant

P<0.05

Table 4 revealed that t-test associated with simple regression is given as 25.969. The hypothesis is rejected because the probability value of 0.00 is less than the alpha level of 0.05. This implied that Teachers' engagement does not significantly predict their teachers' instructional delivery in secondary schools in Rivers State, Nigeria.

Discussion of Findings

The study revealed that there is a significant high positive prediction of motivation on teachers' instructional delivery in secondary schools in Rivers State, Nigeria. The findings of this study are supported by Betterhelp (2023) who submitted that work motivation is a determinant of employees' satisfaction and commitment. The findings were further buttressed by Cherry (2023) who revealed that motivation cannot be disassociated from job engagement. This findings of this implied that the more motivated teachers are, the more they are committed towards achievement of quality instructional delivery.

The study revealed that there is a significant high positive prediction of teachers' engagement on their instructional delivery in secondary schools in Rivers State, Nigeria. The finding of this study is buttressed by that of Li and Ling (2007) who reported that work engagement is a positive and complete emotional and cognitive state related to work, associated with the characteristics of persistence and dispersion. In the corroboration to the finding of this study, Aldabbas, Pinnington and Lahrech (2021) sound that teachers' job engagement is a factor of production in an organization, Similarly, Yao, Qiu, Yang, Han and Li (2022) found that there is a relationship between work engagement and job performance. The result appears so because job engagement is necessary for the achievement of the organizational goals and objectives. Therefore, the level of enthusiasm and dedication a worker feels toward their job,

Conclusion

Based on the findings of this study, the researcher concluded that job enrichment are very indispensable in the actualization of quality instructional delivery in secondary schools in Rivers State. Specifically, teachers' motivation and job engagement are necessary for the realization of quality educational delivery in secondary schools in Rivers state.

Recommendations

The following recommendations were made as follows:

1. The teachers should be motivated based on need areas by the principals in order to enhance quality instructional delivery
2. Responsibilities should be assigned to the teachers by the principals based on their functional abilities.

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IMPLEMENTING COMPETENCY-BASED CURRICULUM FOR SUSTAINABLE DEVELOPMENT IN NIGERIA

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Abstract

The problem of unemployment among secondary school graduates has become a serious concern leading to the reinforcement of competency-based curriculum (CBC) in Nigeria. Given the essential pedagogical role of teachers in CBC implementation in supporting quality education for sustainable development, this paper critically reviewed texts, journals and other articles on some conceptual definitions of CBC, implementation of CBC, sustainable development, and role of teachers in implementing CBC. In addition, the benefits and challenges of implementing CBC were also reviewed. Findings from this meta-analysis review indicate that teachers' role is dynamic and enormous ranging from planning, organization assessment, and communication, among others. The benefits were found to be more on the learners than the teachers. This CBC enables learners have independent mastery in learning skills which brings about motivation, equity and independence at working pace. The teachers are facilitators with defined goals and modalities to follow to achieve their goals. Challenges are bound to occur ranging from lack of human and material resources along with other intervening factors such as quality assurance, and assessment standards. Suggestions were made based on the challenges found from the review.

Keywords: Competency-based curriculum; Implementation; Nigeria; Senior secondary school; Sustainable development.

Introduction

The rate of unemployment among secondary school graduates and even higher degree students seems alarming and has a very negative impact to sustainable development. Research has shown that over 9 million people in Nigeria are unemployed (Olawale, 2018). Statistics has shown that unemployment is on the increase yearly in Nigeria (Statistics Portal, 2019). With the introduction of competency-based curriculum in senior secondary schools in Nigeria, it is expected that school leavers be skillfully empowered but unemployment has continued to ravage the Nigeria society. Confirming this, Olutunyi (2019) contended that one of the factors responsible for the high unemployment rates in Nigeria is an obsolete higher education system that continues to turn out graduates without employable skills. Competency-based curriculum (CBC) oriented contents and activities are innovative which can only be realized using well prepared educators and other support system to impact the knowledge and skills.

Competency-based curriculum therefore, is a curriculum that emphasizes what learners are expected to do rather than mainly focusing on what they are expected to know. In principle, such a curriculum is learner-centered and adaptive to the changing needs of students, teachers and society. For example, teachers may ask students to submit a video essay, or create a digital portfolio that can be shared online. These types of assessments allow students to demonstrate their understanding of the subject, which is the basis for competency-based learning. The competency-based curriculum is concerned with developing knowledge, skills and attitudes to prepare the learners for future employment. The learners choose what they want to learn depending on their career choices. This can only be realized if teachers effectively implement such innovative curriculum which is very vast in terms of teaching, planning, organizing, communicating, evaluating and giving feedback to the society. Competency-based curriculum is valuable and desirable in Nigeria because it promotes the philosophy of Nigeria which includes, among others, to maximize the creative potentials and skills of the individual for self-fulfillment and general development of the society (NPE, 2014).

The implementation of such curriculum based on Gross (1971) implementation theory, was used to realize this goal. The tenets of this theory include: clarity of the innovation to implementers, capability of the implementers, and availability of resources and provision of management support. These elements if properly put in place, enable the teacher to face the challenges of implementing the

innovative curriculum. Anchoring on this theory, this article therefore, critically reviews various text materials by looking at basic concepts such as: competency-based curriculum (CBC), implementation of CBC, sustainable development, role of the teacher in implementing CBC in senior secondary schools, the benefit of implementing CBC for quality education towards sustainable development, and challenges of implementing CBC.

Competency-Based Curriculum

In discussing competence-based curriculum, it will be right to understand what curriculum is. According to Igbokwe, Ogbonna, Eseadi, Nwokenna, Nnadi, Ude, and Ukwuezeh (2019), curriculum is seen as a programme guide that contains the ideas and skills that the society values and are necessary for social continuity. Mbakwem and Chukwuma-Nosike (2017) see curriculum as an embodiment of all the knowledge, skills and attitudes which a nation through her schools impart to her citizens. This work on competence-based curriculum is anchored on this definition which sees curriculum as knowledge, skill and attitude which a learner gains in the school for the development of the individual, the society and the nation as a whole.

Competency-based curriculum (CBC) is that which emphasizes the complex outcome of a learning process (that is knowledge, skills and attitude to be applied by learners rather than mainly focusing on what learners are expected to learn about in terms of traditionally-defined subject content. According to UNESCO (2017), a curriculum lays emphasis on what learners are expected to do rather than what they are expected to know. It is learner-centred and adaptive to the changing needs of students, teachers and society. According to International Bureau of Education, the learning activities and environments are chosen so that learners can acquire and apply the knowledge, skills and attitude to situations they encounter in everyday life. Competency-based curriculum deals with the curriculum that lays emphasis on what the students can do practically after going through a programme of study. It measures progress on individualized learning pattern and how students prove their learning personally (Hurix, 2023). In such curriculum, according to Ayonmike, Okwelle and Okeke (2014), there is a clearly defined, concrete and measurable objectives of which every student participating in the programme must demonstrate mastery. According to Higher Education (2022), CBC focuses on individual competence: learners are meant to be competent in knowledge, skill and also apply the knowledge and skill in work place. It is aimed at raising skilled workforce and this is necessary for curbing the growing unemployment in developing countries like Nigeria.

The aim of competency-based learning is to ensure that students learn the knowledge and skills that is considered important to excel in school, higher education, careers and life after school. Competence-based learning in the words of Higher Education (2022) and Great School Partners (2014), can be termed proficiency-based, mastery-based, outcome-based, performance and standards-based education. Students work at their own pace, demonstrating and structuring their own methods of learning so as to meet these objectives. Competency-based learning is a reform of traditional-based learning. In competency-based learning, the learner moves at his/her own pace. The focus is to master each objective before moving to another. The learner is not in competition with anyone (Higher Education, 2022). This makes the learner have a serious grip of the skills he/she has acquired, thereby becoming a functional member of the society with sustainable skills that leads to growth and development of oneself and the nation if well implemented.

Implementation of CBC

Implementation has to do basically with activities in the classroom, with the teacher at the center of the interaction process. Implementation of curriculum according to Agwu and Chukwu (2018), is putting into use or action the written curriculum to the extent that the curriculum document could be functional. Curriculum implementation, according to Audu (2011), is the engagement of the learner with the planned learning opportunities. In implementation, the objective set at the level of development of the curriculum is targeted by the curriculum implementer, who is the teacher, although other factors could also come into this action.

Though competency-based learning is learner-centred, the learner cannot do totally without the instructor, which is the teacher. However, Ugwu, Ugwu and Bosah (2019) contend that a professional and qualified teacher is needed for curriculum implementation. At implementation, the objective set at the level of development of the curriculum is targeted by the curriculum implementers (Ukwuezeh, 2023). According to Beach, (2021), individual learners are highly flexible, efficient and goal oriented towards skill acquisition if properly guided. A well implemented innovative curriculum like CBC can only lead to sustainable development if the learners are properly assisted.

Sustainable development

Sustainable development is a development that is meant to meet the needs of the present generation without jeopardizing the future generation. In 2015, seventeen sustainable development goals were adopted in various areas of needs (United Nations, 2016). Number four of the Sustainable Development Goals is to ensure quality, reputable and inclusive education. Improving quality of education for sustainable development according to Achor (2013), starts from effective innovative curriculum implementation. With competency-based curriculum already integrated into the senior secondary school curriculum, if well implemented, sustainable development will be achieved in Nigeria at the long run. All these depend on the role of the teacher in achieving the goal set.

Role of the teacher in implementing CBC at the senior secondary school level

At the senior secondary school level in Nigeria, the teacher is expected to guide the students to acquire CBC successfully before completing the education programme. It lasts for three years and that is the level where majority of the skilled-based subjects are integrated and taught in preparation of the students towards the world of work. At this level, the skills acquired from various areas if well implemented, could help the students acquire lifelong skills for sustainable development even if they could not further in future.

The role of the teacher in implementing competence-based curriculum involves planning, organizing, assessing by moving between groups of learners, facilitating discussions, helping students explore and set goals, or may be engaged in more direct instruction with a few students at a time. Research has shown that effective implementation of innovative curriculum using technologies enhanced communication and interaction in the class that was well planned and prepared by a knowledgeable teacher (Ogwu, Patrick & Ukwueze, 2019). Teaching CBC include creativity, communication, critical thinking, collaboration, citizenship and connectivity. Others include interpersonal skills, planning and organization, classroom management, facilitation and engagement. Hence in the U.S.A. and England, Barrett and Hordern (2021) thought of rethinking the foundations towards powerful professional knowledge in teacher education for effective implementation of innovative curriculum. Teachers' competence has the greatest impact on students' achievement towards sustainable development if their roles are well followed.

The benefit of implementing CBC for quality education towards sustainable development

The benefits of CBC could be seen from students and teachers' point of view. Competence-based curriculum helps students develop and demonstrate mastery over a topic, builds a culture of equity and inclusivity, and prepares students for life beyond the walls of the school (Jasnani, 2023). Competence-based curriculum is believed to allow students work at their own pace, which makes learning flexible and engaging, real, effective, efficient and goal-oriented (Higher, 2022). This type of curriculum also makes learning interesting and motivating reducing boredom because the learners are allowed to participate and act to perform their activities in order to accomplish the task (Beach, 2021). CBC according to Jasnani (2023) brings out the hidden potentials of learners since some learners are silent in class. It also makes evaluation fun and enjoyable to students, instead of being a threat, evaluation is seen by the learner as a means of measuring progress (Beach, 2021). This increases students' motivation and makes them more capable as they assess themselves. It supports learners with diverse literacy levels, knowledge and background and other related aptitude, and they are better prepared with necessary skills to succeed as adult (Jasnani, 2023). In a nutshell, since the students take responsibility for their education, they would not like to disappoint themselves, thereby improving learning towards sustainable quality living.

Competence-based curriculum makes work easy for the teacher. Instead of teaching everything, the teacher just kick starts the teaching and the learners take it up from there. In the views of Beach (2021) and Jasnani (2023), CBC allows teachers to define clear goals, attainment and completion, gives teachers the opportunity to sketch visible learning map, allows teachers to use several modalities, and enables them to use learning resources anytime, anywhere as well as technology. Despite all these benefits there are bound to be some challenges.

Challenges of implementing CBC in senior secondary schools in Nigeria

In Nigeria, the challenge of competence-based curriculum could be discussed based on the following themes and facts as stated below:

- **Lack of adequate teacher education and training in support of quality curriculum implementation:** Competency-based curriculum is a new innovation and majority of the teachers

teaching them never went through them in school. It makes such innovation strange and vague to them, and implementing them becomes a challenge. Hence, CBC lacks competent teachers that are knowledgeable in lesson delivery. A teacher can never guide or mentor what he /she is not aware of. According to Nwabuike, Aneke, Otegbulu (2016), a competent teacher is one that delivers the curriculum contents and instructional plans in the way they were planned. Some of the teachers, according to Sanusi and Aina (2017) are not qualified to implement the curriculum put in place in Nigeria. Findings have shown that teachers' lack of knowledge in an area of specialty influences their competence in implementing a curriculum which affects quality education in Nigeria (Bosah, 2018).

- **Lack of critical mass professional curriculum and textbook authors and developers:** Some curriculum developed is usually piloted with teaching using obsolete or wrong text materials as substitutes. Libraries not functional in some secondary schools to enable CBC function.

- **Lack of adequate educational infrastructure and school facilities for the implementation of quality curriculum:** Educational infrastructure and school facilities help to ease, encourage, improve and promote teaching and learning activities. such school facilities include: textbooks, reference books, journals, posters, charts, programmed texts, non-print materials, like films, tapes, computers, CDs, multimedia projectors, televisions, models pictures, recorders transparencies, globes, laboratory apparatus and chemicals. Instructional materials make teaching and learning more real and natural and facilitates understanding and retrieval of information by the students (Azikiwe, 2018). Others include: modern classrooms, creative centers, smart boards, laboratories and latest technologies are needed to enable students to actively participate in the learning process. Some schools do not even have a single computer according to Azikiwe (2018) and Ukwuezeh (2023). This is a major challenge of implementing competency-based curriculum in senior secondary schools in Nigeria.

- **Lack of appropriate quality control mechanisms and quality control:** There is no mechanism put in place for occasional assessment and check of the curriculum put in place to teach. The class size, assessment standard, facilities, instruction among others need to be checked often to make sure that things are moving right as expected. However, in Nigeria, these mechanisms are lacking.

- **Poor funding and support system from the government:** No matter how good a curriculum is, if there is no adequate funding the curriculum objective cannot be met. In Nigeria, so many excellent educational policies have been made, but schools are handicapped because they do not have the fund needed for proper implementation of these well-developed curriculum. Poor attitude of the government towards funding of education is one of the factors that affect the proper curriculum implementation because it is the government that decides the kind of curriculum program the nation embarks on. In Nigeria, the government formulates educational policies and determines implementation strategies. If the government does not support competency-based curriculum, for example sending teachers for in-service training, conferences and workshops, it will not take place in the country.

Conclusion

Curriculum goes through changes and innovation, as the societal needs and aspirations change. Competency-based curriculum is an innovation in the curriculum that emphasizes the development of the total man which entails the development of the cognitive, affective and psychomotor domain which replaced the traditional curriculum where focus is only on cognitive domain. Competency-based curriculum empowers the youths to be skillful, enterprising, and contribute meaningfully to the development and transformation of the nation; thereby reducing unemployment among the youths. The role of the teacher ranges from planning, organizing, communicating and evaluating learners to achieve sustainable development goal in Nigeria. Competency-based curriculum is saddled with some challenges which if well-handled, will improve implementation in senior secondary schools and bring about the needed sustainable development.

Suggestions towards improving the implementation of CBC

In order to curb the challenges facing CBC, the following suggestions were made:

1. Teachers should be sent for in-service training in various areas of skill acquisition by the government to enable them get prepared and knowledgeable on teaching this new curriculum.
2. Government should properly fund this new innovation by providing facilities, equipment and modern infrastructure that are needed for teaching.

3. Regular workshops, seminars and conferences should be organized for competency-based teachers so that this innovation in education will be made clearer to them.
4. Competency-based teaching is demanding and time consuming. Teachers of such should be given incentives by the school administration to enable them put in their best for effective curriculum delivery.
5. A quality assurance mechanism should be put in place by Ministry of Education to assess schools and recommend findings for effective correction in the system.
6. Government should map out fund for graduates with skills and help them to establish business or mini companies to encourage employment

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**MONETARY AND COMPENSATION REWARD MANAGEMENT
STRATEGIES AS PREDICTORS OF TEACHERS' INSTRUCTIONAL
DELIVERY IN SECONDARY SCHOOLS IN NSUKKA
EDUCATION ZONE**

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Abstract

The study investigated monetary and compensation reward management strategies as predictors of teachers' effective instructional delivery in secondary schools in Nsukka education zone. Two research questions and two hypotheses were answered and tested to guide the study. The study adopted a correlational research design with a population of 1654 teachers 62 secondary schools in Nsukka Education zone of Enugu State, Nigeria. the sample size of the study 165 teachers representing 10% of the population of teachers. The sample size was arrived at through simple random sampling technique through balloting by replacement. Monetary and Compensation Reward Management Strategies Scale (MCRMSS) and Teachers' Effective Instructional Delivery Scale (TEIDS) were used for data collection. The instruments were face validated by three experts. Internal consistency reliability coefficients of MCRMSS and TEIDS were computed using Cronbach alpha. Simple regression was used to answer the research questions while t-test associated with simple regression was used to test the hypotheses at 0.05 level of significance. Based on the findings of this study, it was concluded that monetary and compensation reward management strategies are very indispensable in the effective instructional delivery of teachers in secondary schools in Nuskka education zone of Enugu State, Nigeria. Based on the conclusion, the following recommendations are made: The school administrators should provide soft loan for teachers who are in any form of monetary need or the other. Teachers who teach extra time should be duly compensated by the school principals.

Keywords: Monetary and Compensation Reward Management Strategies and Teachers' Effective Instructional Delivery

Introduction

The success of the education sectors can be predicated on the extent and quality of instructional delivery. Instruction delivery can be seen as the practice of teaching students in a school system (Mba, 2022). In the same vain, instructional delivery entails the discharge of instructional contents to the students (Ozoko, 2022). It has been observed that the level of instructional delivery in secondary school is suffering a lot of setbacks. This is made clear as most of the teachers are seen not covering their instructional contents, unprepared for instructional discharge, improper instructional and evaluation methods. The case of secondary schools in Nsukka state is not different from the general observations as most of the teachers come to class late and leave early, dictate notes, show little attention to behavioural manifestations of the students, among other things. These unpleasant condition in the education system posit great rot in the system which can be attributive to so many factors. Some of the attributable factors could be teachers' qualities, students factor as well as the principals' administrative strategies. Some of these administrative practices can be traceable to their reward management behaviours. According to Armstrong (2010) reward management are those welfare practices carried out in the school to keep the school running. Armstrong further stressed that the organization needs reward system to function expectedly.

In the same line of thought, Ikenyiri, and Ihua-Maduenyi (2011) opined that organizations should implement reward strategies that encompass both financial and non-financial aspects as this would ensure the satisfaction of different employees' needs, thus, increasing levels of employee productivity. Reward management has been described as the development, practice, maintenance, communication and evaluation of reward processes. The objectives of reward management are to ensure the accomplishment of both corporate, individual and unions goals and objectives through the formulation and implementation of appropriate policies and strategies for the organization. Given recent evidence that teacher quality is very important for student achievement but unrelated to most observable teacher characteristics. Rewarding teachers to perform well and attracting a pool of high-performing teachers are promising policies to improve student outcomes. The quest to improve public education has led policymakers and researchers to focus on how to increase teachers' productivity. Where firms have good performance measures, the employees will be motivated since pay is associated with improved terms and condition of service which result in higher productivity and better quality of the worker firm match.

A new wave of studies has used company-specific data to investigate the effects of the introduction of performance related schemes on some measure of employees' or establishments' performance shedding light on the "causal" effects of incentives on performance (Bryson et al, 2011). According to Merchant, (2007) every organisation gives pay increment to employees at all organisational levels. Guajardo (2011) found that monetary rewards are the strongest incentive in Africa, especially salary increase or performance-based rewards. Therefore, Narsee (2012) reported that monetary reward is the most important reward category. Wallace, Karanja, Charles, and Edward (2001) depend upon rewards like money as the main factor of motivation. In the same development, Wallace, Karanja, Charles, and Edward reported that greater number of employees depend on monetary rewards for effective productivity. Monetary reward cannot be dissociated from compensations.

According to McNadimara (2006), compensation includes issues regarding wage and salary programs, structures accruing from job descriptions, merit-based programs, bonus-based programs, commission-based programs among others while benefits typically refers to retirement plans, health life insurance, disability insurance, vacation, employee stock ownership among others. Compensation is planned in order to keep an effective workforce, to maintain fairness, objectivity and to ensure that companies comply with government regulations (Hameed, Ramzan, Zubair, Ali & Arslan, 2014). Compensation means payment made by an employer to his employees in return for their time, effort and skill used to render services to the organization (Clark, Kristensen and Westergard, 2009). It comprises different forms of financial and non-financial benefits and could be in form of salaries, wages and benefits like vacation, insurance, maternity, retirement allowances, bonuses, over-time pays, recognition rewards, sales commission etc (Tessema, Ready & Embaye, 2013). Compensation can also come in form of non-monetary benefits like organizational paid accommodation, health and insurance, business trips, flexi-time etc which may later translate into both intrinsic and extrinsic motivation targeted towards raising employees' productivity (Nyawa, 2017). Based on the forgoing, it has not be ascertained by scholars the relationship among monetary reward management, compensation reward management with teachers' instructional delivery. Based on this level of uncertainty and inconsistency in results, the researchers investigated monetary and compensation reward management strategies as predictors of teachers' effective instructional delivery in secondary schools in Nsukka education zone.

Purposes of the Study

The study investigated monetary and compensation reward management strategies as predictors of teachers' effective instructional delivery in secondary schools in Nsukka education zone. Specifically, the study sought to:

1. Determine the predictive power of monetary reward management strategy on teachers' instructional delivery in secondary schools in Nsukka education zone.
2. Find out the predictive power of compensation reward management strategy on teachers' instructional delivery in secondary schools in Nsukka education zone.

Research Questions

The following research questions were answered to guide the study.

1. What is the predictive power of monetary reward management strategy on teachers' instructional delivery in secondary schools in Nsukka education zone?

2. What is the predictive power of compensation reward management strategy on teachers' instructional delivery in secondary schools in Nsukka education zone?

Hypotheses

The following hypotheses were tested at 0.05 level of significance.

1. Monetary reward management strategy does not have a significant predictive power on teachers' instructional delivery in secondary schools in Nsukka education zone.
2. Compensation reward management strategy does not have a significant predictive power on teachers' instructional delivery in secondary schools in Nsukka education zone.

Methods

The study adopted a correlational research design with a population of 1654 teachers 62 secondary schools in Nsukka Education zone of Enugu State, Nigeria. the sample size of the study 165 teachers representing 10% of the population of teachers. The sample size was arrived at through simple random sampling technique through balloting by replacement. Monetary and Compensation Reward Management Strategies Scale (MCRMSS) and Teachers' Effective Instructional Delivery Scale (TEIDS) were used for data collection. The Monetary and Compensation Reward Management Strategies Scale (MCRMSS) has two sections of A and B. Section A contained the demographic information of the respondents such as school type and gender. The section B has two clusters of monetary and compensation with 10 items each making a total of 20 items for MCRMSS. The MCRMSS was structure with the response options of Strongly Agree (4), Agree (3), Disagree (2) and Strongly Disagree (1) respectively. The second instrument contains 10 items that elicited responses on instructional delivery from the teachers. The instrument TEIDS was designed to share the same properties of MCRMSS as in the demographic section as well as the response options. The instruments were face validated by three experts, two from Education Management and Planning, Department of Educational Foundations and the other from Measurement and Evaluation Unit, Science Education all in the Faculty of Education, University of Nigeria Nsukka. Internal consistency reliability coefficients of MCRMSS and TEIDS were computed using Cronbach alpha. Simple regression was used to answer the research questions while t-test associated with simple regression was used to test the hypotheses at 0.05 level of significance.

Results

Research question 1: What is the predictive power of monetary reward management strategy on teachers' instructional delivery in secondary schools in Nsukka education zone?

Table 1: simple regression of the extent of relationship between monetary reward and teachers' productivity

Model	R	R Square	Adjusted R Square	Decision
1	.907 ^a	.823	.854	Very High Extent

Data on table 1 revealed that the regression and regression square coefficients are 0.907 and 0.823 respectively. The predictive power is determined by the coefficient of determinism. The coefficient of determinism of 82.3% reveals that monetary reward management strategy on teachers' instructional delivery in secondary schools in Nsukka education zone to a very high extent.

Hypothesis 1: Monetary reward management strategy does not have a significant predictive power on teachers' instructional delivery in secondary schools in Nsukka education zone.

Table 2: t-test associated with simple regression of the extent of relationship between monetary reward and teachers' productivity

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.201	.432		2.666	.000

Monetary	.901	.123	.907	20.444	.000
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Data on table 2 reveals that the t-test value of 20.444 associated with simple regression is rejected because the significant value of 0.00 is less than the alpha value of 0.05. Therefore, monetary reward management strategy significantly relates to teachers' instructional delivery in secondary schools in Nsukka education zone to a very high extent.

Research question 2: What is the predictive power of compensation reward management strategy on teachers' instructional delivery in secondary schools in Nsukka education zone?

Table 3: simple regression of the extent of relationship between compensation reward and teachers' productivity

Model	R	R Square	Adjusted R Square	Decision
1	.977 ^a	.954	.923	Very High Extent

Data on table 3 revealed that the regression and regression square coefficients are 0.977 and 0.954 respectively. The predictive power is determined by the coefficient of determinism. The coefficient of determinism of 95.4% reveals that compensation reward management strategy on teachers' instructional delivery in secondary schools in Nsukka education zone to a very high extent.

Hypothesis 2: Compensation reward management strategy does not have a significant predictive power on teachers' instructional delivery in secondary schools in Nsukka education zone.

Table 4: t-test associated with simple regression of the extent of relationship between compensation reward and teachers' productivity

Model		Unstandardized Coefficients		Standardized Coefficients		Sig.
		B	Std. Error	Beta	t	
1	(Constant)	2.233	.322		5.761	.000
	Compensation	.914	.009	.977	33.453	.000

Data on table 4 reveals that the t-test value of 33.453 associated with simple regression is rejected because the significant value of 0.00 is less than the alpha value of 0.05. Therefore, compensation reward significantly relates to teachers' instructional delivery in secondary schools in Nsukka education zone to a very high extent.

Discussion of the Findings

Monetary Reward and Teachers' Productivity

This study reveals that monetary reward predicts teachers' instructional delivery to a very high extent. This finding supports that of Moses (2016) that monetary incentive promotes teachers' activities in the school. Similarly, the finding buttressed that of Nalweyiso (2012) which found a positive significant relationship between monetary rewards with teachers' job commitment. The finding of this study showed that the more the teachers are given monetary reward, the high they record effective instructional delivery.

Compensation Reward and Teachers' Productivity

The finding of this study reveals that compensation reward predicts teachers' instructional delivery in secondary schools in Nsukka Education zone to a very high extent. This finding is consistent with that of Abdul, Muhammad, Hafiz, Ghazanfar, and Arslan (2014) that compensation has positive impact on employee performance. More so, the finding is in tandem with that of Onyango (2014) which found that employees compensation accounts for organization performance. This study has buttressed the fact that the more the teachers are compensated, the more they will achieve effective instructional delivery in secondary schools in Nsukka education zone.

Conclusion

Based on the findings of this study, it was concluded that monetary and compensation reward management strategies are very indispensable in the effective instructional delivery of teachers in secondary schools in the Nsukka education zone of Enugu State, Nigeria.

Recommendations

Based on the conclusion, the following recommendations are made:

1. The school administrators should provide soft loan for teachers who are in any form of monetary need or the other.
2. Teachers who teach extra time should be duly compensated by the school principals.

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**AVAILABILITY AND USABILITY OF INTERACTIVE BOARD IN
TEACHING AND LEARNING IN TERTIARY INSTITUTIONS IN
ANAMBRA STATE**

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Abstract

This work centered on the availability and usability of interactive board in teaching and learning in government-owned tertiary institution in Anambra state. A survey research design was used for the study. Two research questions and two hypotheses guided the study. Mean and standard deviation were used in analyzing the data. The study population is four thousand, four hundred and five (4405). Random sampling technique was used to select two out of six government-owned tertiary institutions in Anambra state. One hundred and fifty-one students and six lecturers were selected using stratified random sampling from each of the two tertiary institutions. A sample of 314 respondents were used for the study. Major findings of the study showed that interactive boards are available and utilized, but some of them are inadequate. Based on the findings of the study, the following recommendations were made: Government and management should help in providing fund for the relevant interactive boards, lecturers and students should be trained to acquire necessary skills in the use of interactive whiteboards, lecturers and students should be exposed through seminars and workshops on the knowledge and skills relevant for utilization of interactive whiteboard for instruction.

Keywords: Availability, usability, interactive board, teaching and learning

Introduction

Each and everyone has, from birth, been learning and perhaps, from childhood been teaching. Much of what one does as a teacher depends upon one's duties, especially to pupils. How teachers understand their work, "teaching", very much affects what they actually do in the classroom. One of the most important tasks a teacher has to undertake is to be clear about the nature of the central activity which professionally involves him (Ossai, Eze, Chineke & Uwakwe, 2020). As well as the methods, the strategies and the teaching materials and equipments he/ she uses in content delivery.

Interactive smart board, is known as an electronic whiteboard. It is a classroom tool that allows images from a computer screen to be displayed onto a classroom board using a digital projector. It is commonly known as smart board or whiteboard. It is a large interactive display in the form of a whiteboard. The teacher or a student can "interact" with the images directly on the screen using a pointer or even a finger.

Concept of interactive whiteboards is the means that employs mobile and web based technology to create highly interactive platforms via which individuals and community share, co-create, discuss and modifies user-generated content (Onyemauche, Mbanusi, Ezech & Nkwo, 2020). The interactive whiteboard is a powerful benefit to the classroom. It opens up the students to collaboration and closer interaction to the lessons and by this multimedia content can be shared and used in lectures, keeping students engaged. They are used in a variety of settings, including classrooms at all levels of education, in corporate board rooms and work groups in training rooms for professional sports coaching in broadcasting studios and others.

Learning is the permanent acquisition and habitual utilization of the newly acquired knowledge or experience. Learning must bring about permanent and ephemeral changes in the person. The changes must be in knowledge, character, in skill or in attitude (Eze & Omeje, 2018; Oliobi Okoli, Okonkwo, Oliobi and Mole, 2019) Learning implies that whatever is said to have been learned is clearly perceived, retained, built over time, can be put to work, enhances and affects behavior more or less permanently.

Learning according to Hornby (2012), is gaining knowledge or skill by studying from experience, from being taught. Learning can be seen as “growing or changing as a result of experience. That is, a modification of personality resulting from experience. The changing, growing or modification of experience must be evident where there is noticeable change. It becomes obvious that learning is some specific achievement such as believing something one did not believe before, knowing something one did not know before, acquire a habit one did not have before and so on. The acquiring of new skills, knowledge, ideas, values and experiences which enable the learner to modify or change his action is nothing but learning.

Teaching denotes the various activities undertaken by a more experienced and more knowledgeable person in order to enable learners learn. Teaching today is an invaluable asset to every society, because all the profession cannot exist without classroom teaching. In everyday life, there are numerous circumstances in which people learn without a teacher. Students also learn many things when their teacher is not teaching through their peers.

A teacher is a person who provides education for pupils and students (Onuoha & Nwanorim, 2014). The teachers are the most outstanding and significant factor in education delivery. Teachers have been teaching students over the years. Despite these efforts still, one of the major problems which confront the Nigerian education system is the issue of poor performance of students in senior secondary schools certificate examination (SSCE) (Nzelum, 2010). According to Sofowora & Egbedokun (2010), there is sometimes narrowness in the range of teaching methods characterized by over long expositions, over-directed style inhibiting curiosity, initiative and discussion, all of which reduce opportunities for developing thinking in learners.

For effective teaching and learning the teacher must be able to select and combine the most appropriate strategies and materials during content delivery. The teacher needs good teaching aids that will provide the learner with concrete and real life experience to exemplify and clarify more meaningfully some of the principles and concepts in education. The use of ICT as a recourse material in the teaching and learning becomes vital. The usefulness of resource materials like interactive boards depends on what the teacher makes out of them. Proper handling of these materials in the classroom is necessary. The teacher needs the basic knowledge and skills necessary to make the fullest use of available resource materials.

Availability of something means what you can get, buy or find, Hornby (2012). It has to with available resources/facilities readily/ freely/ publicly/ generally available, free of charge from the school. However, availability and accessibility/ usability of instructional materials appear to be one of the greatest challenges to both lecturers and students in colleges of education.

The ICT, according to Unekwe, (2018) involves all the technologies employed in order to facilitate the collection, storage, retrieval and communication by the fastest means. ICT embraces all modern systems for processing and communication in data, text, image, voice form and electronic media of which interactive board is one. The usefulness of ICT and electronic media depends on the availability and what the teacher makes out of them. Proper use and handling of these materials in the classroom is necessary. Unless the classroom teachers use these resource materials and direct the learner's attention to what they should look for, the students will not learn much as supposed. There is therefore need to find out if interactive board is available in tertiary institutions in Anambra state. Interactive boards are supposed to be available in colleges of education. If they are available are they being used by both lecturers and students in colleges of education in Anambra state for effective teaching and learning?

Statement of problem

The importance of education in the life of an individual and society at large cannot be overemphasized. Some students in schools encounter many problems among which is due to lack of qualified teachers and equipment like digital whiteboard, interactive whiteboard and computers among others. One of the problems that is attracting public concern and outcry in Nigeria today is the decline in the performance of students in public examination. These students are taught mainly by graduate teachers from colleges of education and universities. This is due to lack of equipment even when equipment are available some teachers find it difficult to use the equipment.

The decline in effective teaching and learning will have a long term educational disaster in Nigeria at large. The problem needs to be put in place. in order to achieve more effective and promising teaching and learning of courses in tertiary institutions. Therefore there is need to carry out an investigation in order to find out the availability and usability of interactive board in teaching and learning in tertiary institutions in Anambra state.

Purpose of study

The purpose of this study is to find out the availability and usability of interactive board by undergraduate students of colleges of education in Anambra state. Specifically, the study will:

1. Find the availability of interactive whiteboards in Tertiary Institutions in Anambra state.
2. Determine the level of utilization of interactive whiteboard by lecturers and students of Tertiary Institution in Anambra state.

Research questions

The following research questions guided the study

1. What resources are available for effective teaching and learning in Tertiary Institutions in Anambra State/?
2. To what extent do lecturers and students of tertiary institutions access/ use interactive boards in teaching and learning?

Hypotheses

H₀₁: There is no significant difference in the mean responses of lecturers and students on the availability of interactive board in the effective teaching and learning in Tertiary Institution in Anambra State

H₀₂: There is no significant difference between the mean responses of lecturers and students on the usability of interactive boards available in the tertiary Institution in Anambra State.

Methodology

Design of the study

The research design used for the study was a survey research design. It sought to find the availability and usability of interactive white board in tertiary institutions in Anambra State. This is done by collecting and analyzing data from respondents considered being representative of the entire population.

Area of the study

This study was carried out in Federal College of Education (T) Umunze and Nwfor Orizu College of Education Nsugbe in Anambra state.

Population, Sample and Sampling Techniques

The population of the study was all the students and lecturers in the two sampled colleges of education in Anambra State. The total population of students is 3994 and 411 lecturers giving a total of four thousand four hundred and five (4405). One hundred and fifty one students (151) and six (6) lectures were randomly selected from each of the two (2) selected tertiary institutions, Federal College of Education t Umunze and, Nwfor Orizu College of Education Nssugbe, making a sample size of three hundred and ten (314). Random sampling technique was used to select two out of the six government owned tertiary institutions in Anambra state.

Instrument for Data Collection

The instrument for data collection was questionnaire which were constructed using 4-point scale, meant to elicit information from the respondents.

Validation and reliability of the Instrument

The questionnaire items were validated by three experts. The corrections made by the validators were incorporated in the final copies of the instrument.

Method of Data Collection

The researcher administered the questionnaire to the respondents with some research assistants. The copies of the questionnaire were collected immediately after completion to avoid loss of time and problems that may arise from late returns.

Method of Data Analysis

All the data collected were analyzed using mean and standard deviation.

Results

The data collected were analyzed and presented in statistical Tables showing the mean responses of respondents. This table has been grouped with respect to two research questions.

Research Question One: What resources are available for effective teaching and Learning among lecturers and students in tertiary institutions in Anambra state?

Table 1: Mean Responses of lecturers and Students on the Availability of interactive board for Effective Teaching and learning in tertiary institutions in Anambra state.

ITEM	SA	A	D	SD	N	X	S.D	Remarks
1. Internet Resources	141	124	36	13	314	3.1	1.1	Accepted
2. Projectors	145	92	55	22	314	3.2	1.1	Accepted
3. Electromagnetic white boards	50	45	117	102	314	2.2	1.1	Rejected
4. Interactive white boards	145	103	32	34	314	3.4	0.6	Accepted
5. Screen board	20	42	156	96	314	2.0	0.7	Rejected
6. Computers/ laptop	101	155	46	12	314	3.1	1.0	Accepted
Grand mean						2.8		

Table one showed that items 1, 2, 4 and 6 obtained a mean rating scale of 3.1, 3.0, 3.4 and 3.1 respectively which falls on the performance cut-off marks for acceptance. In other words, the respondents agreed with the items and rejected item 3 and 5 with rating scale of 2.2 and 2.0 respectively. Thus, the grand mean is 2.8, showing that interactive boards are available but to a low extent in the two tertiary institutions studied.

Research Question Two: To what extent do students and lecturers of higher institutions access/use interactive whiteboards in tertiary institutions?

Table 2: Mean Responses of lecturers and Students on the extent of utilization of interactive white board in colleges of education

S/N	ITEMS	VHE	HE	LE	VLE	N	X	SD	Remarks
7	Students and lecturers utilize ICT centre in your institution	144	123	35	12	314	3.3	0.7	Accepted
8	Lecturers and students utilize projectors in my school.	135	94	43	42	314	3.0	1.1	Accepted
9	Computers in your school institutions are for lecturers and students use	145	105	30	34	314	3.2	0.7	Accepted
10	Interactive white boards are available for students and lecturers use	154	119	22	19	314	3.3	0.7	Accepted
11	Lecturers and students utilize laser scanner in institutions in Anambra state	50	45	116	103	314	2.1	1.1	Rejected
12	Students and lecturers use electromagnetic white boards in institutions in Anambra state	20	42	155	97	314	2.0	0.7	Rejected
13	Students and lecturers utilize interactive white boards	149	124	23	18	314	3.3	0.7	Accepted
	Grand Mean						2.9		

From table two, it revealed that items 7, 8, 11, 12, and 13 were accepted but items 9 and 10 were rejected. It shows that the respondents agreed that lecturers and students utilize interactive boards but to a low extent. Thus, grand mean of 2.9.

Ho₁: There is no significance difference in the mean response of the lecturers and the students on the interactive board available for effective teaching and learning in colleges of educations in Anambra state.

Table 3: Summary of table for z-test of difference between mean responses of lecturers and students on the interactive board available for teaching and learning in tertiary institutions in Anambra state

Composition	No	Mean	SD	Z-Cal	Z-Critical
Lecturers	10	2.73	1.63	0.12	1.96
Students	300	2.73	1.96		

Tested at 0.05 level of significant.

The result in Table 3 showed that the Z calculated 0.12 and is less than the critical z. therefore the hull hypothesis was accepted and uphold. This means that there is no significance difference between the mean response of the lecturers and students on the various local resources available for effective teaching and learning of basic science.

Ho₂:

Table 4: Z-test of difference between mean responses of male and female respondents on the interactive board available for teaching and learning in colleges of education in Anambra state

Composition	No	Mean	SD	Z-Cal	Z-Critical
Male	36	3.0	1.7	0.82	1.96
Female	274	2.9	1.7		

Tested at 0.05 level of significant

Since the z calculated z calculated is less than z-critical of 1.96, the hypothesis of no significant difference is not rejected.

Discussion of the Findings

The findings on the availability & usability of interactive boards in teaching and learning in colleges of education, shows that the interactive white boards are available but utilized to a low extent. The availability and utilization of these interactive white boards will help in the effective teaching and learning in tertiary institutions if they are available and utilized to a high extent. This is in line with Onyemauche, Mbanusi, Ezeh an Nkwo (2020) who stated that for teaching and learning to be effective, interactive white board have to be adequately available.

Data analyzed on the hypothesis shows that there is no significance difference between the mean response of the lecturers and students on the availability and usability of interactive board for teaching and learning in colleges of education in Anambra state.

The implication of this is that interactive white boards are available but to some extent and this may lead to ineffectiveness in teaching and learning in colleges of education.

Recommendations

Based on the findings of the study, the following recommendations were made:

- Government and management should help in providing fund for the relevant interactive white Board
- , - Lecturers and students should be trained to acquire necessary skills in the use of interactive white boards,
- Sufficient interactive white boards should be made available in tertiary institutions,
- -Lecturers and students should be exposed through seminars and workshops on the knowledge and skills relevant for utilization of interactive white board for instruction.
- Lecturers and students should be motivated to have interest in using interactive white boards in teaching and learning,

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IMPACT OF BRAIN HEMISPHERIC DOMINANCE ON STUDENT'S ACADEMIC ACHIEVEMENT AND INTEREST IN BIOLOGY

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Abstract

This study explored the influence brain hemispheric dominance on students' academic achievement and interest in biology. To guide the study, three research questions were posed and three null hypotheses were formulated and tested at a 0.05 probability level. Ex-post-facto design was adopted for the study. The study was carried out in Oruk Anam Local Government Area of Akwa Ibom state. The population of the study consisted of 2736 and a sample size of 175 SSII Biology students was used for the study. Three instruments were used for data collection in this study namely: Brain Dominance Test (BDT), Biology Student Interest Questionnaire (BSIQ), and Biology Achievement Record (CBAR) Proforma. A reliability index of 0.96 was obtained from the instruments while analysis of variance (ANOVA) was used to test the hypotheses at a 0.05 level of significance. The results of the study revealed that there was a statistically significant difference in the mean interest rating of students with different brain hemispheric dominance $F(1, 174) = 58.445, p < .000$, there was a significant difference in the mean achievement score of students with different learning styles $F(1, 174) = 2.085, p < .042$. Also, there was a significant influence in the mean interest score of students with different brain hemispheric dominance, $F(1, 174) = 3.938, p > .010$. There was a significant difference in the mean achievement score of male and female students in biology $F(1, 174) = 9.249, p > .003$, there was a significant difference in the mean interest rating of male and female students in biology $F(1, 174) = 8.659, p < .004$. Recommendations were equally proffered among others that teachers should ensure that they first determine the brain hemispheric dominance and learning styles of their students so as to ensure they incorporate proper instructional approach that will ensure that diverse learning styles and brain hemispheric dominance of their students are taken care of during instruction in order to improve on students' achievement and interest in Biology. The limitations of the study and suggestions for further studies were equally made.

Keywords: Brain Hemispheric dominance, achievement and interest.

Introduction

Science is the study of our natural physical environment its composition and components, it has many branches such as chemistry, Physics and Biology. Biology is a branch of natural science that deals with the study of a living organism, its structure, functions, evolution, distribution and interrelation with other organisms and the environment. In Nigeria, the secondary school biology curriculum is designed to help students investigate natural phenomena, deepen students' understanding and interest in biological sciences, and to encourage student's ability to apply scientific knowledge to everyday life in a matter of personal and communal health and agriculture Nigerian Educational Research and Development Council (NPE, 2013). Based on the objectives of the Biology curriculum, researchers have shown that the achievement and interest of students in Biology and science, in general, are poor and not up to expectations, and the need to pay greater attention to this problem of poor achievement and interest. Researchers have come up with findings on the approaches to improve student achievement in Biology such as the use of innovative teaching methods, the use of instructional materials and the use of practical approaches in the teaching of science, despite these research findings achievement and interest of Biology students is still below expectation and at a state of dwindling. This paper further helps us look beyond approaches and materials to see if individual

differences such as Brain Hemispheric Dominance and Learning Styles have influenced Biology students' interest and achievement.

Brain hemispheric dominance is the ability of an individual to use the left or the right hemisphere or in combination in the processing of information. The use of different halves of the brain by individuals is a widely accepted and known fact, in which each hemisphere of the brain contributes to certain body functions. Each person has a unique way of perceiving, interpreting and utilization of given information, (Mansour, El-Araby, Pandaa & Gemeay, 2017). The reality is that individuals use different approaches to learning which generally result in the use of the whole mind, intuition, belief and subjectivity intact. Yazgan and Sahin, (2018), showed that each brain hemisphere preference affects individuals' academic achievement and interest. Therefore, when a student understands how students learn and their spatial ability, the student is more favoured on also trying to inculcate an understanding of different ways other students learn: it is expected that such students have gotten balanced in science instruction and have acquired the necessary science processes that will enable such learner developed the basic problem-solving skills in science.

It is a generally held belief that the brain controls the cognitive abilities of an individual. This includes the way the individual perceives information and processes the information received. The brain is the complex connection of the neuron to form a control unit that receives, processes and stores information in an organism, it is the seat of intelligence and balance in humans. In terms of structure, there exists the right and left hemispheres in the human brain (Yazgan & Sahin, 2018). Findings from Giljov and Karenina (2019); Soyooof and Morovat (2014) and Tripathi (2016), have proven that the different halves of the brain process information uniquely and differently though both hemispheres are equally important in terms of whole brain functioning, individuals rely more on one information-processing mode than the other, especially when they approach new learning. These two halves of the brain are called the left and right brain hemispheres. The left-brain hemisphere controls the right part of the body and is predominantly suited for scientific pursuit while the right brain controls the left part of the body which is suited for art and humanity career pursuit. The left part of the brain encourages Biology students to involve in hands-on activities while the right brain part encourages the students to perform various spatial functions, tactile perception of complex structures, musical ability, prosody, non-verbal thinking, and memory (Dordevic, Pavlovic, Goran & Pavlovic 2018). The brain controls the cognitive and affective domain of teaching without the brain being able to retrieve information stored and interpreting the feelings of biology students achievement and interest in Biology education will be hard to determine. In our various schools and lesson teachers, educators and curriculum planners pay little attention to individual differences such as Brain Hemispheric Dominance not knowing that it can to a certain extent influence student academic achievement and interest (Iusca, 2014). Hence the knowledge of brain hemispheric dominance is important to both the teachers and the students to understand individual differences and bring about improvement in the achievement and interest of Biology students.

Interest means having or showing a positive feeling of emotion about something or someone. Individual interest describes a person's relatively enduring predisposition to engage in particular activity over time as well as to the immediate psychological state when this predisposition has been activated (Hendrickson, 2019). Individual interest describes a person's relatively enduring predisposition to engage in particular activity over time as well as to the immediate psychological state when this predisposition has been activated (Hendrickson, 2019). In a classroom setting, interest is required to meet students' intellectual as well as emotional needs of the learner (Suryati, 2019).

Achievement is the extent to which students have mastered and can transfer the knowledge, skills and attitude presented to them during the teaching-learning process in solving real-life problems. Achievement is described by Adewale, Nzewuihe and Ogunshola (2016) as the mark obtained by a student at the end of a test or examination. It is noted that no learning process is complete without assessing the achievement of the student in line with the stated objectives of such a learning process (Adak, 2017). Gender is a role assigned to the different sexes of humans by society. The role assignment means that every society has specific functions that are for males and females respectively. Gender being a topical issue in the educational system has received serious attention. Various studies have been carried out on gender for example study conducted by Bichi, Ibrahim and Ibrahim (2019); Cutumisu and Bulut (2017); Bicer and Lee (2019) pointed to the fact that biology student academic achievement in senior secondary schools is in favour of male students while Akpoghol, Ezeudu, Adzape and Otor (2016), Diana (2014) based on this contrasting view of different authors it is ascertained that the achievement of students in science education has not been resolved particularly in regards to achievement and interest in biology. Also, researchers including (Awla, 2019; Bosman, 2015 & Beyzsacli, 2017) pointed out that both male and female students have a low interest in

biology. In this study, the researcher seeks to find out if this poor academic achievement and interest in biology could be a result of differences in term of brain hemisphere. Hence the need for this study.

Biology which is one of the science subjects has many advantages attached to it. Many males and female students choose this subject with the perception that biology is an easy subject but is available evident (WAEC average biology student achievement 2017-2019) and research from different authors have indicated poor achievement and imbalance in male and female biology students achievement. These students' poor achievement in biology could be attributed to so many factors such as the under-utilization of teaching materials, the sociocultural background of the student, teaching methods and strategies utilized by the teacher. This study helps to find out if student achievement and interest could be improved by teaching students to use their preferred brain hemisphere in the teaching and learning of biology.

Purpose of the Study

The general purpose of this study is to investigate the influence of brain hemispheric dominance and learning styles on biology students' academic achievement and interest. Specifically, this study intends to determine: the influence of

1. brain hemispheric dominance on Students' Achievement in Biology
2. brain hemispheric dominance on Students' Interest in Biology
3. gender on student's interest in Biology
4. gender on student achievement in Biology

Research Questions

The following research question guided the study.

1. What is the influence of brain hemispheric dominance on students' achievement in biology?
2. What is the influence of brain hemispheric dominance on students' interest in biology?
3. What is the influence of gender on student's interest
4. What is the influence of gender achievement in biology?

Hypotheses

The following null hypotheses were formulated and tested at an alpha level of 0.05.

Ho₁: There is no significant difference in the mean achievement scores of students with different brain hemispheric dominance in biology.

Ho₂: There is no significant difference in the mean interest rating of students with different brain hemispheric dominance in biology.

Ho₃: Gender does not significantly influence the mean interest ratings of students in biology

Ho₄: Gender does not significantly influence the mean achievement scores of students in biology

Methodology

The design used was an Expos-facto research design which involves the use of existing data. The population of the study was 2,736 Biology students from Oruk Anam Local Government area of Akwa Ibom state and a sample size of 175 Biology students Drawn from purposive sampling technique. Instruments used for data collection were Brain Dominance Test, Biology student interest Questionnaire and a proforma for collecting students' previous year's academic record, the instrument was face and content validated by three experts from the Department of science education one from measurement and evaluation, and two from biology using. The instruments were trial tested and a reliability index of .96 was gotten through Cronbach Alpha.

The researcher established rapport with the school administrators and subject teachers. Through interaction with the administrator subject teacher on the reason for the researcher's visit to the school. With the help of their class teachers the questionnaire and other instruments were administered after responses from the students the instruments were collected and the results were analyzed. Research questions were answered using mean and standard deviation. Hypotheses were tested using analysis of variance at 0.05 level of significance.

Results

Research Question 1: What is the influence of brain hemispheric dominance on students' achievement in Biology?

Table 1: Mean and Standard Deviation (SD) on the influence of brain dominance on students' achievement in biology

Brain Dominance	n	SD	X
Left Brain Dominance	21	49.22	19.22
Right Brain Dominance	154	60.93	22.45

The result in Table 1 indicates that Biology students with left and right brain dominance had a mean achievement scores of 49.22 and 60.93 with standard deviations of 19.22 and 22.45 respectively. This showed that students with right brain dominance have the highest achievement in Biology followed by students with left brain hemispheric dominance with the lowest achievement in Biology. The standard deviation indicated that scores got from students with left brain dominance were closer to the mean than those with right brain dominance.

Research Question 2: What is the influence of brain hemispheric dominance on students' interest in biology?

Table 2: Mean and Standard Deviation (SD) of brain dominance on students' interest in biology

Learning Styles	n	SD	X
Left Brain Dominance	21	45.33	14.45
Right Brain Dominance	154	69.34	14.86

The result in Table 2 indicates that Biology students with left and right brain dominance had mean interest of 45.33 and 69.34 and standard deviation of 14.45 and 14.86 respectively. This showed that students with right-brain dominance have the highest interest rating in Biology followed by left-brain dominance students with the lowest interest in Biology. The standard deviation gotten showed that the interest rating of students with left brain dominance was closer to the mean than the interest rating of students with right brain dominance.

Research Question 3: What is the influence of gender on students' interest in biology students?

Table 3: Mean and Standard Deviation (SD) of gender on mean interest score of biology students

Gender	n	SD	X
Male	88	69.35	16.60
Female	154	63.53	16.41

The results in Table 3 indicated that male students have a mean achievement score of 69.35 while their female counterparts have a mean achievement score of 63.53 with SD of 16.60 and 16.41 respectively. This showed that male students have the highest achievement in biology followed by their Female counterparts with the lowest interest score in Biology. The standard deviation also indicated female students' interest rating was closer to the mean

Research Question 4: What is the influence of gender on student achievement in biology students?

Table 4: Mean (\bar{X}) and Standard Deviation (SD) on the influence of gender on mean achievement scores of biology students

Gender	n	SD	X
Male	88	66.51	20.96

Female 87 52.48 21.63

The result in Table 3 indicated that male students have a mean achievement score of 66.51 while their female counterparts have a mean achievement score of 52.48 with SD of 20.96 and 21.63 respectively. This shows that male students have the highest achievement in biology followed by their Female counterparts with the lowest achievement score in Biology. The standard deviation indicated that female students' score was closer to the mean than the male students' scores.

Hypothesis One

There is no significant difference in the mean achievement scores of students with different brain hemispheric dominance in biology.

Table 5: Analysis of Variance of Students' Mean Achievement Scores in Biology

Source	Type III Sum of Square	df	Mean Square	F	Sig
Corrected model	275057.451 ^a	13	21158.265	6.698	.000
Intercept	1627890.878	1	1627890.878	515.201	.000
BrainD	12890.630	1	12890.630	4.080	.045
Learning style	26592.078	3	8864.026	2.085	.042
Gender	29225.726	1	29225.726	9.249	.003
BrainD* Learning style	9509.340	3	3169.780	1.003	.393
BrainD* gender	1744.392	1	1744.392	.552	.459
Learning styles* Gender	73862.605	3	24620.868	7.792	.000
BrainD*Learning styles *	8774.955	1	8774.955	2.777	.980
Gender					
Error	508714.743	161	3159.719		
Total	6365558.00	175			
Corrected total	783772.194	174			

The result in Table 5 shows a statistically significant difference in the mean achievement score of students with different brain hemispheric dominance in biology $F(1, 174) = 4.080, p < .045$. The null hypothesis, therefore, was rejected, indicating that there was a significant difference in the mean achievement scores of students with different brain hemispheric dominance.

Hypothesis Two

There is no significant difference in the mean interest scores of students with different brain hemispheric dominance in biology.

Table 6: Analysis of Variance of Students' Mean Interest Scores in Biology

Source	Type III Sum of Square	df	Mean Square	FSig
Corrected model	17499.967 ^a	3	1346.151	6.962 .000
Intercept	190745.639	1	190745.639	986.463 .000
BrainD	11301.157	1	11301.157	58.445 .000
Learning style	2284.416	3	761.472	3.938 .010
Gender	1674.312	1	1674.312	8.659 .004
BrainD* Learning style	2010.383	3	670.128	3.466 .018
BrainD* gender	512.194	1	512.194	2.694 .106
Learning styles* Gender	409.724	3	136.574	.706 .550
BrainD*Learning styles *	23.070	1	23.070	.119 .730
Gender				
Error	31131.461	161	193.363	
Total	821528.00	175		
Corrected total	48631.429	174		

The result in Table 6 shows a statistically significant difference in mean interest scores of students with different brain hemispheric dominance in biology $F(1, 174) = 58.445, p < .000$. The null hypothesis therefore, was rejected, indicating that there was a significant difference in the mean interest scores of students with different brain hemispheric dominance.

Hypothesis Three

Gender does not significantly influence the mean achievement score of students in biology. The result in Table 5 shows a statistically significant difference in the mean achievement scores of male and female students in biology $F(1, 161) = 9.249, p < .003$. The null hypothesis, therefore, was rejected, indicating that there was a significant difference in the mean achievement scores of student's male and female students in biology.

Hypothesis 4

Gender does not significantly influence the mean interest score of students in biology

The result in Table 6 shows a statistically significant difference in the mean achievement score of students in biology $F(1, 161) = 8.659, p < .004$. The null hypothesis, therefore, was rejected, indicating that there was a significant difference in the mean interest scores of students with different learning styles.

Discussions

Results of the study showed that students with accommodating learning styles had the highest mean achievement in Biology followed by converging, assimilating and diverging learning style with the lowest achievement in biology, further result showed a statistically significant difference on mean achievement scores of students with different learning styles in biology. The finding of this study could be as a result of the fact that accommodating learners learn through feeling and learn more when they are exposed to experiences that help built their knowledge of the concepts in biology, and also could be as a result of the learner's curiosity to learn more through experimentation and interaction with people and materials during biology instruction, also it could be due to the fact that the teacher utilized approaches that aligned with the accommodating learners way of receiving and processing information during biology lesson, which could lead to their high academic achievement in the subject. Results of the study showed that students with accommodating learning styles had higher mean interest in Biology while diverging learning style had the lowest interest in biology, further result showed a statistically significant difference on mean interest scores of students with different learning styles in biology. This difference in interest of biology student in favor of the accommodating learners could be as a result of this set of learners prefer to work with others to get assignments done, set goals, do field work, and to test out different approaches to completing a project. Since interest is a dynamic state that arises through an ongoing transaction among goals, context, and actions.

Results of the study showed that students with accommodating learning styles had higher mean interest in Biology while diverging learning style had the lowest interest in biology, further result showed a statistically significant difference on mean interest scores of students with different learning styles in biology. This difference in interest of biology student in favor of the accommodating learners could be as a result of this set of learners prefer to work with others to get assignments done, set goals, do field work, and to test out different approaches to completing a project. Since interest is a dynamic state that arises through an ongoing transaction among goals, context, and actions. Interest in a subject of study has positive influence on their learning and even the choice of careers. This could also be because knowledge of students' learning style preferences could improve students' interest in learning, it could be as a result of the ability to align biology instruction mostly to the accommodating learners than to diverging, converging and assimilating learners.

The result from this study is in line with the findings from other researchers Maisyara and Saragi (2019), Diana (2014), Essien and Obot (2015), and Adu-Gyamfi (2016) who found out that interest is inherent and yet can be improved by external forces which include such factors as the way the learners perceive and process information which is embedded in the characteristics of the accommodating learner. Also, The finding of this study is in line with the Kolb & Kolb (2017) learner styles theory which showed that student in accommodating learning styles perform better in sciences especially biology.

Conclusion

From the results obtained in the study on the influence of brain hemispheric dominance and learning style on students' achievement and interest in Biology, it was found that: Students with right hemispheric dominance had higher achievement and interest in biology than students with left brain hemisphere dominance, the result of the study also showed that Male students had higher mean achievement and interest in biology than their female counterparts therefore, the result of the finding showed that gender influence students achievement and interest.

Educational Implication

The implication of this could be that teachers have not been paying great attention to these individual differences among their students in the classroom to use approaches that can accommodate these differences among learners. Also, teachers may have been using activities that enhance gender stereotypes in the classroom, this may have influenced the findings of this study. The implication of this study to the curriculum planners could be that they have not provided enough teachers and learners activities that will capture and help address the issue of individual differences.

Recommendations

The following recommendations were made based on the findings of this study

- a. The findings of this study showed that gender was a significant factor in the achievement and interest of students; hence, teachers should use instructional approaches as identified in the literature that can streamline gender differences in science classrooms.
- b. Science teachers should be trained on the need for proper classroom management to suit learners' differences in terms of brain hemispheric dominance and learning styles. Furthermore, teachers should provide a variety of activities and opportunities for students to use their skills continuously during biology lessons irrespective of gender.
- c. Establishment of in-service training for teachers on the best approach to identify these individual differences in the learners.

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**EFFECTIVENESS OF SOCIAL STUDIES CURRICULUM
IN PROMOTING SEXUALITY EDUCATION AMONG
JUNIOR SECONDARY SCHOOL STUDENTS IN
ENUGU SOUTH LGA**

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Abstract

The main purpose of this work was to investigate the effectiveness of Social Studies curriculum in promoting sexuality education among junior secondary school students in Enugu State. The study employed a descriptive survey. Data were gotten from the Enugu South educational zones in Enugu State. The entire 208 Social Studies teachers in junior secondary schools in the state were studied; hence, there was no sampling. Effectiveness of Social Studies Curriculum in Promoting Sexuality Education Questionnaire (ESSCPSEQ) was used for data collection. Three experts validated the instrument and the instrument was trial-tested with 20 copies of the instrument administered to Social Studies teachers in Ebonyi State to establish its reliability. Data collected were analyzed using Cronbach Alpha, which yielded a reliability coefficient of .76 for cluster A and .60 for cluster B. This implies that the instrument is reliable and consistent with measuring what it tends to measure and was analyzed using mean as standard deviation to find out the responses of social studies teachers. The findings of the study show that Social Studies curriculum needs to be reviewed in contents to integrate topics capable of promoting sexual education among students. Teaching methods should possess positive influence in the implementation of Social Studies curriculum for the promotion of sexuality education among students. Based on the findings, recommendations were made which include that government should organize workshops and seminars to re-train teachers in proper implementation of the social studies curriculum in Junior Secondary Schools among others.

Introduction

Background of the Study

Adolescent sexual and reproductive health (ASRH) has been overlooked over the years despite the high risks that countries face for its neglect. More than half of the world's population is under the age of 20 years and are at the highest risk of sexual and reproductive health problem (WHO, 2015). According to National Aids and Sexually Transmitted Diseases Control Program (2016), about 63% of all new Human Immunodeficiency Virus infections in Nigeria are among youths within 15 to 24 years and abortion is one of the consequences of insufficient information about HIV. Jinadu & Odesammi, (2013) noted that the increasing population of adolescents in our society with inadequate information of sex education is witnessing an unprecedented "wound" in traditional rules, norms and behavioural controls. The outcome is rampant rape, unwanted pregnancies, unsafe abortions, sexually transmitted diseases (STDs), Human Immune Virus/Acquired Immune Deficiency Syndrome (HIV/AIDS) and increasing number of multiple sexual partners. Jinadu and Odesammi believed that the needs and rights of adolescents in the area of sexuality seem not to have been sufficiently captured by the existing Social Studies curriculum in the educational systems and the society at large.

Sexuality involves and is shaped by beliefs, attitudes, and societal experiences. Action Health Incorporated (AHI), (2013) defined Sexuality education as education about human sexual anatomy, sexual reproduction, sexual intercourse, reproductive health, emotional relations, reproductive rights and responsibilities, abstinence, contraception and other aspects of human sexual behaviour. Kaplan (2014), conceptualized sexuality as a way a person goes about expressing himself/herself as a sexual being. According to Collins, (2018) sexuality education encompasses education about all aspects of sexuality including information about family planning, reproduction, body image, sexual orientation, sexual pleasure, values, decision making, communication, dating, relationships, sexually transmitted infections and how to avoid them, and birth control methods

Sexuality education may be taught informally and formally. The informal means include receiving information through conversation with parents, friends, religious leaders or the media. W.H.O, (2012) opined that sexuality education equip students with the knowledge, skills and values they need to make responsible choices about their sexual and social relationships. The importance of sex education at the early stage of adolescence are innumerable because it is a means by which they will be helped to protect themselves against abuse, exploitation, unintended pregnancies, sexually transmitted diseases, abortion and HIV and AIDS (United Nations Children's Rights, 2011). School-based sexuality and reproductive health education is one of the most important and widespread ways to help young people improve their reproductive health (Monisola, 2009; Alford, Cheetham & Hauser, 2018). Eko, Abeshi, Osonwa, Uwanede and Offiong(2013) observed that this is because; school is a privileged setting for formal, articulate sex education as children and adolescents spent a considerable amount of their time at school. The present wants to investigate the effectiveness of social studies curriculum contents in promoting sexuality education among junior secondary school students in Enugu North LGA of Enugu state.

Social studies is the totality of experiences and understanding a child gets having been exposed to a course of study based on man's problems in his/her environment, the factors that are normally responsible in man's interaction and the resulting ways of life of man (Uchendu, 2017). The objectives of Social Studies curriculum according to Federal Republic of Nigerian (2014) include: Ensuring the acquisition of relevant knowledge as part of the pre-requisite to personal development as well as making contributions for the development of mankind and developing in children, and inculcation of appropriate values of honesty, integrity, hard-work, fairness and justice at work and play, as well as one's contribution to the development of the nation among others.

The above objectives, shows that Social Studies curriculum could be used as a powerful tool for eradicating, or at least, reducing significantly, the prevalence of the already identified social problems, among which is sexuality education and its perceived consequences. The term curriculum has no widely accepted definition since it is conceived in various ways at different stages of time. Hence, curriculum can be viewed as the organized knowledge presented to learners in a school, which covers every element in the learning environment (Ogwumike, 2014). The Social Studies curriculum is thematic in format and very pragmatic in content selection, unlike the old ones that adopt the topical approaches. The curriculum is designed to meet the major objectives of Nigerian education which include among other things inculcation of high moral and ethical values; and establishment of a positive disposition towards peace, justice, equity, anti-corruption tendencies and good governance (NERDC, 2018). It is very obvious that teachers' way of thinking and beliefs could guide their behaviour in decision-making both in and outside the classroom. Social studies teachers' effectiveness in the classroom could go a long way in achieving the expected outcome.

Effectiveness is a measure of the match between stated goals and their achievements because it is always possible to achieve easy and low-standard goals. Fraser (2014) maintained that quality in education cannot only be a question of achievements output but must also involve judgment about the goals. Erlendsson (2012) defined effectiveness as the extent to which objectives are met. It means doing things the right way.

Despite the lofty objectives of Social Studies Curriculum, increased vulnerability of young people to sexual and reproductive health problems still abounds (Kotlyar & Karakowsky, 2016). There is need therefore, to probe the implementation of Social Studies curriculum, as this alone has the potential of inculcating harmonious living among diverse people. It therefore calls for concern whether appropriate and result oriented instructional methods are employed in the implementation of Social Studies curriculum in Nigeria.

Instructional methods can make or mar students' potentialities to learn and achieve. Teaching methods have been put forward as one of the factors affecting curriculum implementation. For example, Emaikwu (2012) noted that the fall in standard of performance at secondary school level is incontrovertibly attributable to pedagogical approaches adopted by teachers in schools. The selection of appropriate teaching approaches for a particular classroom situation enables the teacher and his/her students to accomplish specific curriculum goals (Kennedy, 2011). As such, Finkelstein (2011) stated that curriculum implementation outcomes are of primary importance and are hypothesized to be mediated by changes in teacher's knowledge and application of pedagogical practices in teaching-learning process. Observing the importance of instructional methods in teaching-learning process, Hussain and Ali, (2012) postulated that the content to teach is just like the body and the method is just like the soul in the body; the body without soul is of no importance, therefore teaching without the

proper method of teaching has zero value. This implies that ineffective or non-students-participatory teaching methods result to little or no learning and the end product is poor or no achievement.

Identifying teaching methods that may be effective in different educational levels, Hussain and Ali, (2012) noted that in the lower levels, the drill and practice method may be effective and fruitful while at the higher stages the method should be according to the demands of the subject and the interest of the students. There is no particular teaching-learning method that is exclusively encompassing or the most excellent. Two or more teaching-learning methods could be used by teachers to have more meaningful learning outcomes. However, Idris and Rajuddin (2012) observed that it is a common practice in Nigeria where a teacher stands before the chalk board and delivers lesson through verbal instruction while the students serve as passive listeners and take note from the board. Kelly (2014) stated that this practice only benefits the instructors who have a greater control over what is being taught in the classroom because they are the sole source of information.

The situation in Enugu State appears more worrisome. One could, through a casual observation, notice that the state seems to be engulfed in sexual and reproductive health problems such as teenage and unwanted pregnancies, abortion, sexually transmitted infections etc. Sex education contents as contained in the Social Studies curriculum seem to be inadequate in helping to improve the quality of adolescents' relationships and assisting them in developing decision-making skills that will prove invaluable to life. Supporting this assertion, Bolarin, Obebe and Olaniyonu (2010) decried the inadequacy in content of sexuality education in social studies curriculum. Siecus (2010) equally noted that school-based sexuality education will address socio-cultural, biological psychological and spiritual dimensions of sexuality by providing information exploring feelings, values, attitudes and developing communications, decision-making and critical thinking skills. No similar study was carried out in Enugu North LGA before now. This study is an attempt to fill this gap in literature.

Purpose of the Study

The purpose of the study was to investigate the perceived effectiveness of Social Studies curriculum in promoting sexuality education among junior secondary school students in Enugu State. Specifically, the study sought to determine:

1. the effectiveness of the contents of Social Studies curriculum for promotion of sexuality education?
2. the effectiveness of Social Studies curriculum prescribed teaching methods for promotion of sexuality education.

Research Questions

The following research questions were developed to guide the study:

1. What are the contents of Social Studies curriculum in the promotion of sexuality education in JSS in Enugu South Local Government Area?
2. What is the role of teaching methods in the implementation of Social Studies curriculum for the promotion of sexuality education?

Methods

The research design employed in this study was descriptive survey. The study was carried out in Enugu South Local Government Area, Enugu State. The population of the study consisted of all Social Studies teachers in public secondary schools in Enugu South. The total population was 208 teachers comprising 116 males and 92 females in Enugu State public school management board, (2021). The instrument for data collection was a questionnaire titled "Effectiveness of Social Studies Curriculum in Promoting Sexuality Education Questionnaire (ESSCPSEQ)". The questionnaire constructed by the researchers was developed to elicit information from the respondents. clusters A & B sought to elicit information on research question one, and two respectively. The instrument was developed in four-point rating scale of Strongly Agree (SA), Agree (A), Disagree (D) and strongly disagree (SD). Data collected were analyzed using Cronbach Alpha, which yielded a reliability coefficient of .76 for cluster A. Data was analyzed using mean and standard deviation. Based on the four points scale, a mean scale of 2.50 was used as the benchmark of the study. Therefore, any item that scored below 2.50 was rejected while the items those scored 2.50 and above were accepted.

Results

The data collected for the study were analyzed based on the research questions for the study.

Research Question 1: What are the contents of Social Studies curriculum for the promotion of sexuality education?**Table 1: Mean ratings of responses on contents of Social Studies curriculum for the promotion of sexuality education.**

S/N	Social Studies Curriculum Contents	\bar{X}	SD	Decision
1	Curriculum focused on specific behaviours that prevents unintended pregnancy.	2.11	1.39	Rejected
2	Curriculum focused on specific behaviours that prevents STIs.	2.44	.914	Rejected
3	Curriculum focused on specific behaviours that prevents HIV.	2.01	.559	Rejected
4	Curriculum that presents scientifically and medically accurate information.	2.32	.714	Rejected
5	Curriculum that addresses gender issues and sensitivities.	2.41	1.00	Rejected
6	Curriculum that addresses multiple risk and protective factors affecting sexual behaviour.	2.02	.948	Rejected
7	Contents that curb the incidence of moral laxity.	2.31	.860	Rejected
8	Curriculum that develops the ability of children to make conscious decisions.	2.21	1.18	Rejected
9	Curriculum that strengthens the ability of students to make healthy choices regarding relationships.	2.03	1.08	Rejected
10	Curriculum that socializes students to develop certain basic values necessary for societal living.	2.01	.714	Rejected

Average Mean Score = 2.31

Key: \bar{X} = Mean; SD = Standard Deviation

Results of table 1 shows that items 1, 2, 3, 4, 5, 6, 7, 8, 9, and 10 have the mean rating of 2.11, 2.44, 2.01, 2.32, 2.41, 2.02, 2.31, 2.21, 2.03, and 2.32 respectively. These mean ratings are less than the benchmark of 2.50 which indicate that all the listed items are what should be integrated into Social Studies curriculum for the promotion of sexuality education among junior secondary school students in Enugu State. Social Studies curriculum should therefore be reviewed in contents.

Research Question 2: What is the role of teaching methods in the implementation of Social Studies curriculum for the promotion of sexuality education?**Table 2: Mean ratings of responses on influence of teaching methods in the implementation of Social Studies curriculum for the promotion of sexuality education.**

S/N	Influence of Teaching Methods	\bar{X}	SD	Decision
1	Simulation method help students to brainstorm during the teaching of sexuality education.	2.42	.609	Rejected
2	Discussion method enable students participate in decision making in teaching of sexuality education.	2.23	.565	Rejected
3	Field trip method helps students observe natural things and learn in their environment in the teaching of sexuality education.	2.28	.682	Rejected
4	Inquiry method helps students make rational decision in key issues of sexuality education.	2.41	.758	Rejected
5	Assignment of roles to individual students to play in teaching of sexuality education makes lesson learnt permanent.	2.38	.707	Rejected
6	Dramatized teaching method enables students bring out their natural qualities in the teaching of sexuality education.	2.15	.715	Rejected
7	Lecture teaching method helps students listen and learn facts about sexuality education.	2.02	.872	Rejected
8	Giving students project and take-home assignment after teaching helps them to learn faster.	3.25	.708	Rejected
9	Grouping method helps to instil leadership skills in the students.	2.41	.758	Rejected
10	Questions and answer method helps to elicit more ideas in the teaching of sexuality education.	2.39	.982	Rejected

Average Mean Score = 2.42

Key: \bar{X} = Mean; SD = Standard Deviation

Results of Table 2 shows that items 1, 2, 3, 4, 5, 6, 7, 8, 9 and 10 have the mean rating of 2.42, 2.23, 2.28, 2.41, 2.38, 2.15, 2.02, 2.25, 2.41 and 2.39 respectively. These mean ratings are less than the benchmark of 2.50 which indicate that teachers perceive the listed teaching methods to possess negative influence in the implementation of Social Studies curriculum for the promotion of sexuality education among students in junior secondary schools in Enugu State.

Discussion

The findings of this study revealed that the curriculum should be focused on specific behaviours that prevent unintended pregnancy, STIs and HIV; addressing gender issues and multiple risk factors affecting sexual behaviour; developing the ability of children to make conscious decisions. This is in consonance with the views of Oikeh (2018), and Oroge, Ikegulu and Nneji (2010) that sexuality education could be integrated into subjects like Social Studies, Biology and Integrated Science. Onyegebu (2012) based her own work on integration of sexuality education into the curriculum based on teachers' perspectives and found that the present curriculum lacks the basic knowledge of sexuality education and can be enriched.

The findings of this study on research question 2 revealed that teaching methods possess negative influence in the implementation of Social Studies curriculum for the promotion of sexuality education among students. Such methods include Simulation, Discussion, Field trip, Inquiry method, Role play, Lecture, Grouping and Questions and answer method. This is in line with Mbah (2014) who found that different teaching method could be used in the teaching of social studies and that no single method is adequate for all situations. Also in support of this finding is Ikwumelu (2013), who posited that a wide spectrum of methods are best for use in teaching social studies, as the choice of many apt teaching methods would not only accommodate the varying needs, interest and background of the learners, but also take cognizance of the essential criteria for selecting social studies teaching methods which include relevance to the needs of the society, the individual learner and the objectives of the programme.

Conclusion

Sexuality education is a means through which the Nigerian society can combat sexually transmitted diseases (STDs) and HIV/AIDS dispel ignorance, control births and teenagers' premarital pregnancies. To achieve this required an effective Social Studies curriculum, availability and utilization of relevant related teaching resources in schools and adoption of relevant teaching methods. However, it has been noted that not only that the curriculum did not contain topics capable of promoting sexuality education among students, appropriate teaching methods and instructional materials are lacking in our schools for proper implementation of Social Studies curriculum for the promotion of sexuality education.

Recommendations

Based on the findings and limitations of the study, the researchers recommended the following;

1. That Social Studies curriculum content should be reviewed in contents to integrate topics that will focus on specific behaviours that to properly promote sexuality education
2. Enugu State Government through their ministry of education and Universal Basic Education Board to ensure that appropriate teaching methods are adopted in the implementation of Social Studies curriculum for the promotion of sexuality education in schools.

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**ATTITUDE OF UNDERGRADUATE STUDENTS OF UNN
TOWARDS VOTE BUYING DURING ELECTIONS: IMPLICATIONS
FOR A RE-THINK ON PEACE EDUCATION AND NATIONAL
SECURITY IN NIGERIA**

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Abstract

Vote buying is an aspect of electoral malpractice currently gaining notorious image in the electoral system in Nigeria. This study investigates attitude of undergraduate students of University of Nigeria to vote buying and the implication for nation-building and national transformation in Nigeria. The study sample consists of 300 undergraduate students selected through the proportionate stratified random sampling technique across gender from 10 faculties in the main campus of University of Nigeria, Nsukka. The instrument used for data collection was Questionnaire on attitude to vote buying developed by the researchers for the purpose of the study. Five research questions and one hypothesis guided the study. Data collected were analyzed using arithmetic mean and standard deviation, while the hypothesis was tested using the t-test at 0.05 level of significance. The results of the study showed among other things that poverty, ignorance and peer group influence were the major reasons undergraduate students sell their votes to desperate politicians during elections. Moreover, the result indicates that there is no significant difference in the attitude of male and female undergraduate students to vote buying. The result with respect to reasons recommends a re-think on inclusive policy for implementation of peace education at all levels of the Nigerian education system.

Keywords: Votes, Vote-buying, Elections, Undergraduate, Students

Introduction

Vote buying is a new dimension in the electoral malpractices in Nigeria. Vote buying has illegally become a key component of electoral mobilization strategies by desperate politicians in many young democracies especially in Africa (Jensen and Justesen, 2014). Vote buying has often been described as the exchange of private material benefits for political support. It is a form of financial, material or promissory inducement or reward by candidates of a political party, agent or supporter to influence a voter to cast his or her vote or even abstain from voting in order to enhance the chances of a particular contestant to win an election (Amadi, 2012; Jaja & Agumagu, 2019). Vote buying has recently come into playing a dominant role in determining who wins an election in Nigeria. The electorates seemingly look forward to selling their votes as a form of merchandise during elections (Peter & Obi, 2014).

Vote buying seem to be largely associated with developing countries of the world where democratic institutions and practices are still weak (Susan & Nikolay, 2014). Vote buying appear to be dominant in young democracies where money politics is particularly effective in poor or financially vulnerable communities and less educated people (Aytac, 2015). In addition, corruption is a social vice that has eroded the powers of democratic institutions such as the judiciary and the electoral body in many developing countries. Therefore in young democracies who are gradually extricating themselves from military dictatorships, corrupt practices tend to dominate in the public service (The Whistle, 2011). The tendency is the weakening of the security, the police, legislature, judiciary, the electoral body and other democratic institutions whose officials are often compromised (Peter & Obi, 2014, and Tawakkal, Suhardono, Garner & Seitz, 2017).

In Nigeria, there were many cases of ballot box snatching using political thugs and other forms of violence by politicians while security personnel on duty look the other way during the recently concluded elections. Desperate politicians wanting to win elections by all means have devised a new wave of electoral malpractice known as vote-buying during elections (Onuoha & Ojo, 2017). Vote buying seems more subtle and more effective in swaying voters choices during elections than ballot snatching. This new trend in electoral malpractice is worrisome and therefore calls for the attention of researchers to proffer solutions to the menace.

The justification for vote buying seems to be that of free gift on the basis that no statute binds one who receives the gift on how he/she is supposed to react during or after the said gift has been collected. In the same vein, there is also no legal obligation, binding one from not delivering on the terms, in which such gifts are given (Ovwasa, 2013). This implies that if the receiver of the gift fails to vote for the candidate offering the gift, he cannot be legally sued for not voting. Vote buying is not restricted to Nigeria. In Africa for instance, 16% of voters have reported being offered money or goods in exchange for their votes during elections while nearly 80% of voters from 36 African countries believe voters are bribed – either sometimes, often or always (Shin, 2013). In Nigeria, politicians, political parties, and party agents who are mainly youths are the vote buyers while prospective voters are the sellers (Onuoha & Ojo, 2017). The commodity on sale is the vote to be cast while the medium of exchange could be monetary and non-monetary items. The market force that determines the value or price of a vote is the level of desperation of politicians to win the election in a locality (Ovwasa, 2013).

The issue of selling votes to the highest bidder aptly is a questionable practice that has permeated Nigeria's electoral process as demonstrated in the recent off-season elections in Ekiti, Anambra, Osun and just concluded national and state assembly elections. However, many researchers in the area of vote buying appear not to have paid much attention to the key stakeholders, undergraduates who constitute a significant part of youths in Nigeria. This study investigated undergraduate students attitude to vote buying in Nigerian politics using University of Nigeria Nsukka as a case study. The undergraduates are the leaders of tomorrow, who also have been playing active role in several elections in Nigeria either as political thugs, party agents, electoral ad-hoc staff, vote canvassers or voters. An undergraduate student is primarily a youth and a person enrolled in a university or tertiary institution and pursuing a degree or a diploma programme. The students are very vulnerable to vote buying in view of the rising level of poverty, unemployment and inadequate social welfare scheme, bursary, scholarship and general educational funding for youths.

Researchers such as Amadi (2012), Jensen Justesen (2014) Onye and Obizue (2017) are of the view that the socioeconomic status of parents especially of these undergraduate students from low-income homes are likely to influence their attitude towards vote buying. This position or assertion is predicated on the prevailing economic reality in Nigeria today which affects low income families. Thus, students from low-income families may have strong preference for particularized immediate benefits while students from wealthier homes may prefer more programmatic benefits that could take longer time to be delivered (Shin, 2013). What is important however is that the undergraduates are of voting age and may have enough political awareness to accept or reject vote buying.

Similarly, gender as a factor could play a significant role in the way individuals especially undergraduates perceive vote buying and other issues of serious concern in the society. Gender is a sociocultural concept that illustrates masculinity or femininity. It is the social role played by men and women (Amanyie, Bariledum & Lucky, 2015). Researchers in education and the social sciences have identified the influence of gender on attitude, interest and achievement (Onye & Obizue, 2017). Males appear more assertive, dominant and independent while females are more receptive, submissive and dependent (Anyanwu, Nwakanma & Idimogu, 2017). It therefore more likely for the males to resist the temptation of vote selling than their females counterparts. Thus, this study investigated undergraduates' students' attitude to vote buying, and extent their gender influenced such attitude.

Statement of the Problem

In Nigeria, vote buying has been identified as a trending electoral malpractice adopted by desperate politicians to take advantage of their opponents during elections. of the. Politicians resort to wooing voters with money, foodstuffs, clothes and other souvenirs in exchange for their votes. Considering the economic situation in Nigeria today, the youths especially the undergraduates appear to be the primary target as ballot box snatching is fast becoming unfashionable, The undergraduates could become easy prey to vote buying and selling due to the absence of social welfare scheme for their education, lack of bursary and near absence financial support from government. Many of the students come from low-income homes and could be easily lured into immediate beneficial offers

from politicians during elections except for those from wealthier families. Thus, the researchers investigated the attitude of undergraduates towards vote buying. This study also considered the influence of gender on the students attitude to vote buying since research evidence indicates that males are more assertive, independent aggressive than the females. It is possible that these attributes of males and females could account for the attitude of undergraduates to vote buying. Hence, this study investigated undergraduate students attitude to vote buying using the University of Nigeria, Nsukka as a case study.

Purpose of the Study

The purpose of this study is to investigate student's attitude to vote buying in University of Nigeria, Nsukka, Enugu State. Specifically, the study;

- a. assessed undergraduate students' perception on the extent of vote buying during elections.
- b. ascertained undergraduate students' attitude to vote buying during elections.
- c. ascertained the extent parents' level of income influences undergraduate students' attitude to vote buying.
- d. determined the extent gender of undergraduate students' influenced their attitude to vote buying.

Research Questions

The research questions formulated to guide the study are as follows:

1. To what extent does vote buying occur during elections in Nigeria?
2. What is the undergraduate students attitude to vote buying?
3. To what extent does income level of parents' influence undergraduates students' attitude to vote buying?
4. To what extent do male and female undergraduate students differ in their attitude to vote buying during elections in Nigeria?

Research Hypothesis

The following hypotheses formulated for the study were tested at 0.05 level of significance:

1. There is no significant difference in the mean (\bar{x}) rating scores of undergraduate students from parents of high and low-income levels on their attitude to vote buying.
2. There is no significant difference in the mean (\bar{x}) rating scores of male and female undergraduates on their attitude to vote buying.

Methodology

The study adopted the descriptive survey research design. Nworgu (2015) stated that in survey studies collect data through questionnaire, observation or interview which are analyzed and used for answering research questions. The author further opined that when a study centers on individual opinion or group of opinions that the best design to adopt is survey method. This study investigated the opinion of groups of undergraduate students on their attitude to vote buying during elections in Nigeria. Hence the survey research design was considered appropriate for this study.

The area of the study is University of Nigeria, Nsukka in Nsukka local government area, Enugu state. The University of Nigeria Nsukka is a Federal University popularly known as UNN, it was founded by the Rt. Hon. Dr Nnamdi Azikiwe in October, 1960. It has three campuses namely. Nsukka, Enugu and Ituku- Ozalla. All the campuses are located in Enugu state which is the capital of former Eastern region and hot-bed of politics east of the Niger. The population of undergraduate students in UNN was 35,630 in 2019/2020 academic session (Department of Students Affairs UNN: Population Statistics, 2021). This large population of students is enough to generate a large sample for the study. The choice of UNN as the area of this is also based on the fact that it is a federal university with a wide catchment area and boasts of students population from across Nigeria.

The sample for the study consisted 300 undergraduates selected from the 35630 undergraduates in UNN. The sample was selected through the disproportionate sampling technique from the ten faculties in the Nsukka campus of the University. The 300 respondents were made up of 125 and 175 undergraduates students from parents of high and low income levels; and 150 male and 150 female undergraduates students respectively.

The researchers developed the instrument titled "Undergraduate Students' Attitude to Vote Buying Questionnaire (USAVBQ). The instrument has two sections, namely; section A and section B. Section A was on demographic information of the respondents and it elicited information on personal data of the respondents (faculty and gender). Section B consists of items that dealt on attitude

to vote buying. Section 'B' is arranged in clusters. Cluster 'A' dealt on extent of vote buying while cluster 'B' dealt on attitude to vote buying while Cluster 'C' was on influence of parents level of income on vote buying. The clusters have 9,7 and 7 items respectively.

The researchers subjected the questionnaire to face validity test by three experts in Faculty of Education. Two lecturers in the Department of Social Science Education and one from Measurement and Evaluation unit of Science Education, all in faculty of Education, UNN. These experts looked at the content of the questionnaire, whether it is in line with research questions and statements of problems. These experts also looked at the format of the questionnaire, the appropriateness of the questionnaire title and the clarity of items it contained. The instrument was further subjected to construct validity using the factor analysis. This was done because attitude is psychological construct whose instrument requires construct validation. Items that met the requirements in factor loading were included in the final version of the instrument.

The reliability of the instrument was determined using the Cronbach Alpha method. This is because the items deal on psychological construct (attitude) and were also scored polychotomously, hence the use of cronbach alpha reliability method. To determine this, the instrument was administered to 35 respondents in Enugu state university of Science and Technology (ESUTH) which is outside the area of study. The reliability index of the USAVBQ was thus calculated using the SPSS version 20 at 0.81. This was considered high and thus appropriate for the study.

During data collection, the researchers visited the undergraduate students in their faculties and departments and administered the questionnaires directly to the respondents. The researchers collected the questionnaires back on the spot to ensure 100 percent return. The information obtained from the questionnaire were analyzed using the arithmetic mean (X) and standard deviation. The t- test was used to test the hypothesis at 0.05 level of significance.

Results

The data generated for the study were analyzed and presented according to the research questions as follows;

Research Question 1: What is the extent vote buying occur during elections Nigeria?

Table 1: Mean (\bar{x}) ratings of undergraduate students on extent of vote buying during elections in Nigeria

S/N	Extent of the Vote Buying in Nigeria	SA	A	D	SD	\bar{x}	Decision
1.	Vote buying is becoming an acceptable practice during elections.	72=288	68=204	167=334	23=23	$\frac{849}{300}=2.83$	A
2.	Some voters refuse to accept gifts of money, salt and clothes during elections.	54=216	52=156	118=236	76=76	$\frac{684}{300}=2.28$	D
3.	Females are more susceptible to vote buying than males during elections.	41=164	69=207	82=164	108=108	$\frac{643}{300}=2.14$	D
4.	Many undergraduates refuse to sell their votes during elections.	37=148	93=279	66=132	104=104	$\frac{663}{300}=2.21$	D
5.	Poverty is the main reason for people selling their votes during elections.	92=368	91=273	83=166	34=34	$\frac{841}{300}=2.80$	A
6.	Vote selling and buying are common in rural than urban areas during elections.	83=328	76=228	107=214	34=34	$\frac{804}{300}=2.68$	A
7.	Politicians and their agents visit houses with salt, money, etc. to buy votes during elections.	33=132	109=327	31=62	127=127	$\frac{648}{300}=2.16$	D
8.	It is difficult to win elections these days without buying peoples votes.	121=484	89=267	76=152	14=14	$\frac{917}{300}=3.05$	A
9.	Both young and old voters look forward to selling their votes during elections.	127=508	73=219	88=176	21=211	$\frac{924}{300}=3.08$	A

Table 1 shows that, the undergraduate students agreed that vote buying during elections is very pervasive to a high extent. They seem to agree that vote buying is generally accepted as a normal practice in politics in Nigeria, that poverty is the main reason people sell their votes. They also affirm that vote buying and selling is common in the rural than urban areas, that it is difficult to win elections in Nigeria without vote buying and that both old and young voters look forward to selling their votes during elections.

On the other hand the undergraduates students disagreed on the following issues as regards to vote buying as presented in items, 2, 3, 4 and 7. The undergraduate students disagreed on the following issues: that, many refuse to accept gifts of money, cloths and salt; females are more susceptible to vote buying than males; some voters refuse to sell their votes; and that politicians and their agents visit the houses to buy votes with salt, money and cloth. Disagreeing on these items suggest that vote buying is prevalent and trending in Nigeria.

Research Question 2: What is the undergraduate student’s attitude to vote buying?

Table 3: Mean (X) rating on Undergraduates Students Attitude to Vote Buying

S/N	Attitude to vote buying	SA	A	D	SD	\bar{X}	Decision
1.	I believe in vote buying.	5=20	9=27	110=220	125=125	$\frac{392}{300} = 1.30$	SD
2.	Vote buying do not help to choose good leaders.	125=500	117=351	31=62	20=20	$\frac{933}{300} = 3.11$	A
3.	Vote buying has come to stay.	30=120	25=75	115=230	125=125	$\frac{550}{300} = 1.83$	D
4.	Vote buying is anti-democratic.	120=480	110=330	50=100	28=28	$\frac{938}{300} = 3.13$	A
5.	Vote buying is corruption	112=448	145=435	43=86	0=0	$\frac{969}{300} = 3.23$	A
6.	Vote buying should be accepted.	25=100	11=33	149=298	115=115	$\frac{546}{300} = 1.82$	D
7.	Vote buying should be punished legally.	125=500	116=330	41=110	18=40	$\frac{980}{300} = 3.27$	A

Table 2 above shows that undergraduates students attitude towards vote buying in Nigeria is negative. They believe that though it has come to stay vote buying doesn’t help voters to choose the best candidates during elections. The attitude of the students towards vote buying suggest that it is anti-democratic, and an act of corruption that should be punishable legally.

Research Question 3: To what extent does income level of parents influence undergraduate students attitude to vote buying in Nigeria?

To answer this research question, a hypothesis was formulated as follows:

H01: There is no significant difference in the mean (x) attitude rating scores of undergraduate students from high income parents and low income parents.

Table 3: Result of t-test analysis on mean (x) rating scores of undergraduates students from high income parents (HIP) and low income parents (LIP) parents on their attitude to vote buying.

S/N	Statements	HIP N1	LIP N2	X1	X2	S.D1	SD2	t-cal	t-crit	Decision
1.	I believe in vote buying.	125	175	2.38	2.68	1.34	2.21	2.15	1.96	Reject
2.	Vote buying do not help to choose good leaders.	125	175	2.15	2.63	1.25	1.67	1.72	1.96	Do not reject
3.	Vote buying has come to stay.	125	175	2.62	3.16	1.27	2.42	1.62	1.96	Do not reject
4.	Vote buying is anti-democratic.	125	175	2.74	2.69	1.23	1.58	2.52	1.96	Reject
5.	Vote buying is corruption.	125	175	3.16	2.37	1.03	1.73	2.1	1.96	Reject
6.	Vote buying should be accepted.	125	175	2.14	2.52	0.94	1.64	1.15	1.96	Do not reject
7.	Vote buying should be punished legally.	125	175	3.25	3.10	1.56	1.72	1.63	1.96	Do not reject

Table 3 above shows that the hypothesis was rejected for items 1, 4 and 5. Hence, there is a significant difference in the attitude of the undergraduate students from high income parents (HIP)

and those from low income parents (LIP) with regards to their believe in vote buying, anti-democratic and corrupt practice. However, they do not differ on the issue of vote buying not helping electorates to choose good leaders; that vote buying has come to stay, vote buying should be accepted, and vote buying should be punished legally.

Research Question 4: What is the difference in male and female students' attitude to vote buying? In answer to the research question, a hypothesis is formulated as follows:

Hypothesis Testing Ho2: There is no significant difference in the mean (\bar{x}) rating scores on attitude of male and female undergraduates to vote buying at 0.05 level of significance

Table 4: Result of t- test analysis of mean (\bar{x}) attitude ratings of male and female undergraduate students on vote buying.

S/N	Statements	Male N1	Female N2	X1	X2	SD1	SD2	t-cal	t-crit	Decision
1.	I believe in vote buying	150	150	2.5	3.5	1.34	2.32	2.15	1.96	Reject
2.	Vote buying do not help us to choose good leaders.	150	150	2.9	2.4	1.25	1.35	1.72	1.96	Do not reject
3.	Vote buying has come to stay.	150	150	3.1	3.1	1.27	1.14	1.62	1.96	Do not reject
4.	Vote buying is anti-democratic.	150	150	3.1	3.1	1.03	1.73	2.14	1.96	Reject
5.	Vote buying is corruption.	150	150	2.7	2.4	0.94	2.16	1.15	1.96	Do not reject
6.	Vote buying should be accepted.	150	150	2.8	3.3	2.31	2.53	1.73	1.96	Do not reject
7.	Vote buying should be punished legally	150	150	3.5	2.9	2.71	2.42	1.59	1.96	Do not reject

Table 4 above shows that the hypothesis was rejected for items 1, and 4. This means that there is a significant difference in the mean (\bar{x}) rating of male and female undergraduates students on their attitude to vote buying on the two items. Hence, the male and female undergraduate students differ in their believe in vote buying and in their regard of vote buying as anti-democratic. However, there is no significant difference in their mean (\bar{X}) rating on the other five issues. These include; vote buying do not help to choose good leaders, vote buying has come to stay, vote buying is corruption, vote buying should be accepted; and vote buying should be punished legally.

Conclusion and Recommendation

The findings of this study suggest that vote buying has come to stay as a veritable tool for willing elections in Nigeria as both the young, male and female, rich and the poor look forward to politicians for material and cash gifts before casting their votes during elections. There is also a strong link between poverty and attitude to vote buying. The Undergraduate students from high income parents do not believe in vote buying as the students from low income parents. Despite differences in gender and economic background, the undergraduate students generally regard vote buying as a socio-political malaise that is undemocratic, and that should not be accepted but punished legally. The implication is that since poverty makes vote buying a more attractive, there should be a re-thinking on entrepreneurship education for the economic empowerment of the population. Education for life support skills and employment may significantly reduce the tendency for vote selling and buying in Nigeria. This study therefore recommends a re-thing on relevant existing policies on entrepreneurship education for the survival of the youth.

In addition, there is need for a value re-orientation through education in the nation. A new policy direction on value education should be considered and encouraged as panacea for correcting the social ills of vote buying and selling to ensure national transformation. The National Orientation Agency and public education department of the Independent National Electoral Commission (INEC) have greater roles to play in this regard.

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