ASSESSMENT OF SECONDARY SCHOOL ADMINISTRATORS' INFORMATION AND COMMUNICATION TECHNOLOGY COMPETENCY LEVEL FOR ONLINE SCHOOL ADMINISTRATION

David Onyeamaechi Ekeh, PhD[1], Chidiebere K. Duru, PhD[2], & Emmanuel Idowu Ojobanikan, PhD[3], Caroline Onyinyechi Nweke[1] & Christian S. Ugwuanyi[4]

[1]Department of Educational Management, Alex Ekwueme Federal University Ndufu Alike Ikwo. dave.ekeh@funai.edu.ng
[2]Department of Educational Foundations, Alex Ekwueme Federal University Ndufu Alike Ikwo. chidiebereduruk@gmail.com
[3]Department of Educational Foundations, Alex Ekwueme Federal University Ndufu Alike Ikwo, emmanuel.ojobanikan@funai.edu.ng
[4]Department of Science Education, University of Nigeria.
christian.ugwuanyi@unn.edu.ng

Abstract

Online education platforms play a crucial role in ensuring adequate teaching and learning in 21st-century classrooms and faced with the COVID-19 pandemic. Nigerian secondary school administrators' knowledge of information and communication technology (ICT) is thus brought into question. Several studies have not been conducted on this subject, thus the lack of studies. Thus, the researchers were able to assess the ICT proficiency of secondary school administrators during and after the COVID-19 outbreak to facilitate online school administration. Based on the scientific research paradigm and quantitative research methodology, this study employed a descriptive survey research design. There were 223 participants in the survey from Nigeria's Ebonyi state. Data were gathered using an ICT competency questionnaire that has been adequately validated and tested. Using Cronbach Alpha reliability methodology, the questionnaire was found to have an internal consistency reliability index of 0.87. To generate a response to the study question, the mean statistical method was used to examine the data. Despite their professional expertise in ICT, secondary school administrators were not proficient in implementing online learning. In order to ensure appropriate use of ICT in the classroom, the Local Government Education Authority should offer in-service ICT training to administrators.

Keywords: Assessment, Information and communication technology, Online teaching, Secondary School Administrators

Introduction

Administration of schools cannot be done only in the traditional way in the twenty-first century. With the advent of COVID-19, most developed nations are now required to adopt online and remote learning methods. Several nations and academic domains have adopted virtual learning due to the COVID-19 pandemic, according to Adarkwah (2021). Adarkwah (2021) considers ICT to be an effective tool for fostering global educational reform and advancement using information and communication technology (ICT). According to the International Society for Technology in Education's 2019 standards, students must be able to learn, teach, gather, create, and share information to achieve educational objectives through digital media in the 21st century (Cobanoglu & Cobanoglu, 2021). The practice should also incorporate online, remote, or mixed learning experiences (both online and in-person) as a way of preparing students for the 21st century.

Information and communication technology (ICT) advancements have fundamentally changed the way schools teach and learn (Rudhumbu, 2020). As a result of the widespread use of ICT in the past two years, pedagogy and the way education is delivered have completely changed

(Amin et al., 2021). Eufrasio (2021) contends that technology is essential for both high-quality education delivery and teacher preparation. Asamin et al. (2000) found that utilizing technology enhances creativity, individualized learning, and knowledge accumulation by students (Amin et al., 2021). As a result of the development of ICT, educational institutions are using it more frequently to enhance teaching and learning (Colmenero et al., 2021). It is, however, crucial for parents and educators to embrace this concept before this goal can be achieved (Colmenero et al., 2021). The use of mobile devices in the classroom is more prevalent among primary school administrators than administrators in high schools or general/vocational lyceums (Nikolopoulou et al., 2021). In light of the circumstances, it is questionable whether Nigerian secondary school administrators are knowledgeable or skilled at integrating ICT into their classrooms.

Teacher education is facing a challenge due to the rise in digital competency among educators as a result of technological advancements (Garz, 2020). In order for instructors to effectively incorporate technology into the teaching-learning process (Daz- et al., 2016), they must develop their ability to integrate information and communication technologies (ICT). As a result, it is essential to assess secondary school administrators' ICT proficiency before and after the Covid-19 outbreak in order to implement online instruction. Adarkwah (2021) discusses how school leadership practices, motivation, and teacher and student attitudes influence the integration of ICT in education.

Technical support infrastructure (skilled support staff, ICT tools and systems, internet, consistent power supply) was provided before ICT adoption in Zimbabwean universities (Rudhumbu, 2020), as well as policy support infrastructure (a clear ICT vision, an ICT policy, and a policy implementation plan). Based on the results, virtual competency and motivational variables influence the effectiveness of e-learning most significantly (Amin et al., 2021). Martn et al. (2019) state that early childhood educators lack the digital skills to be considered "digital natives" and are unable to use ICT for professional or academic purposes. In addition to age and gender, the educational stage in which they are employed has no impact on the pedagogical digital competence of teachers (Guillén et al., 2020).

It is important to consider a variety of factors when developing an online teaching and learning program, such as the information and communication technology skills and abilities of administrators and students, as well as the availability of technical equipment and assistance (Turgut & Aslan, 2021). The characteristics of age, gender, and education level affect the development of digital skills, but they don't necessarily produce it (Cabezas-gonz & Casillas-mart, 2021). The motivation for students to learn and the enjoyment they may derive from digital learning activities were primarily responsible for their academic success during the previous lockdown (Christopoulos & Sprangers, 2021). Administrators lacked basic ICT skills as a result of their lack of knowledge. An online teacher should consider factors such as ICT ownership, regular use, professional education, and ICT skills when implementing online learning (Dong & Xu, 2021).

It encourages pupils to showcase their talents and fully engages administrators in the knowledge society (Zabolotska et al., 2021). In terms of digital understanding and content production, pre-service administrators are moderately skilled (Galindo-domnguez & Bezanilla, 2021). Only those kids who were judged competent at learning online showed a connection between achievement and online learning (Yi et al., 2021). ICT use in Early Childhood Education is restricted by Chinese primary school administrators instead of incorporated into the curriculum (Dong & Mertala, 2021).

There is a lack of funding, resources, expertise, and distance learning tools that impede online learning and teaching, according to Asio et al. (2020). Several factors, including their level of ICT skill, impeded Indonesian students' ability to study online, according to statistics (Suci et al., 2021). Researchers discovered that educators were underprepared in all five digital domains, particularly in producing digital materials (Garz, 2020). Using self-reported data, competency requirements, and the requirement for professional training in digitalization in teaching (Amhag et al., 2019), it has been found that teacher educators do not primarily use digital resources for pedagogical purposes.

Online learning is related to ICT capabilities, as shown by the information above. Several factors hinder administrators from taking full advantage of the online reaching option, according to the research. There has, however, been no study conducted in Nigeria to assess secondary school administrators' skills in ICT in anticipation of an online teaching approach. As a result of a gap in the literature, this study was conducted.

Research Question

The following was the research question:

What is the level of ICT competency of Secondary School Administrators for the adoption of online school administration during and after the Covid-19 pandemic?

Methods

According to the scientific research paradigm and quantitative research methodology, this study utilized a descriptive survey research design. Eze et al. (2020), Ezema et al. (2021), Ezeaku et al. (2021), Okeke, Okeke et al. (2020), Okeke et al. (2020), Ugwuanyi et al. (2020), Okenyi et al. (2021) have used a similar design and study approach in related studies. In the survey, 223 secondary school administrators in Ebonyi state were surveyed. Ebonyi state secondary school administrators were selected through a simple random sampling procedure. Out of all the secondary schools in the study area, 24 were randomly selected in the first step. The instrument/measure was validated by two expert in early childhood care and education and one expert in educational research from the University of Nigeria, Nsukka. During the study, the specialists cross-referenced the instrument's items with the study's objectives.

The instrument was developed using comments from the validators prior to trial testing. After that, copies of the tool were sent for trial testing to twenty secondary school administrators who were not involved in the research. To ascertain the internal consistency dependability of the instrument's items, the data were submitted to a Cronbach alpha reliability estimate. The instrument's dependability index was determined to be 0.87 by the research. The research ethics committee of the University of Nigeria gave its approval for the study's conduct. Before any data was collected, participants had to sign informed consent forms. For access to the research facilities, prompt authorization letters from the heads of each participating school were required. Data was collected during visits to all of the participating schools in the study. An on-the-spot device administration approach was consequently selected. Participants received copies of the instrument at their respective schools, and they had 20 minutes to respond before they were picked up. Answers to the research questions were obtained through the use of means.

Results

The results were presented in line with the research questions.

Table 1

Mean analysis of the ratings of the Secondary School Administrators' ICT competency

S/No	Item Statement	Mean	Std. Deviation	Remark
1	Being able to boot up a computer	1.83	.71	LC
2	Being able to shut off the computer	1.50	.67	LC
3	Utilizing a computer to create educational resources	1.83	.57	LC
4	Getting administrative resources online	1.75	.45	LC
5	The capability to use the internet	2.26	.57	LC
6	Using a projector to provide administrative materials	1.16	.93	VLC
7	Assigning school functions to teachers via a computer	1.91	.99	LC
8	Utilizing Google Forms to evaluate the instructional effectiveness of the teachers	1.91	.66	LC
9	Grading teachers using the internet	1.03	.57	VLC
10	Making educational resources available to teachers online	1.18	.79	VLC
11	Being able to make PowerPoint presentations	1.25	1.13	VLC
12	Being proficient in presenting a PowerPoint presentation	1.23	.93	VLC
13	Capacity to send feedback to teachers via email	1.33	.49	VLC
14	Being able to communicate with teachers via online	2.00	.73	VLC
15	Being familiar with using online platforms for meeting with the teachers	2.00	.42	VLC
	Overall	**24.17**	**10.61**	**VLC**

LC = Low Competence, VLC = Very Low Competence

In Table 1, the means of Secondary School Administrators' ratings on items 1, 2, 3, 4, 5, 7 and 8 range from 1.50 to 2.49, which indicates low levels of competency in ICT. On items 6, 10, 11, 12, 13, 14, and 15, their mean scores were all within the range of 1.0 to 1.49, indicating very low levels of ICT competency. In addition, the Secondary School Administrators' average score of 16.57, with a standard deviation of 9.08, indicates very low ICT skill levels.

Discussion

This study aimed to assess secondary school administrators' level of ICT competency in order to implement online teaching methods. In the study, researchers found that secondary school administrators do not have adequate ICT skills for implementing online teaching strategies. Due to their inexperience with ICT, secondary school administrators will be unable to utilize an online learning environment effectively. Secondary school administrators' low ICT skills can be attributed to a variety of factors. The educators are unlikely to have received any in-service training on integrating ICT into the classroom. Having insufficient ICT resources can also be a problem in schools.

The motivation to learn and enjoyment or fulfillment that digital learning activities may provide were the most important factors contributing to students' academic success during the previous lockdown (Christopoulos & Sprangers, 2021). In this case, administrators lacked basic ICT skills. The majority of pre-service administrators have moderate digital skills and difficulty producing content (Galindo-domnguez & Bezanilla, 2021). Kids who were judged competent

in learning online were the only ones who showed a link between achievement and online learning (Yi et al., 2021). Early Childhood Education administrators in Chinese primary schools restricted ICT usage rather than integrating it into the curriculum (International et al., 2019).

It is difficult to teach and learn online due to a lack of funding, resources, expertise, and distance learning tools (Asio et al., 2020). Many Indonesian students wanted to learn online, but their proficiency with ICT, among other factors, limited their ability to do so (Suci et al., 2021). Researchers found that educators lack proficiency in all five digital domains, particularly when it comes to creating digital content (Garz, 2020). The use of digital resources by teacher educators is not primarily for pedagogical purposes based on self-reported use, competence, and the need for professional training in the use of digital resources (Amhag et al., 2019). Digital skills are influenced by a range of factors, including age, gender, and level of education, but they do not create them (Cabezas-gonz & Casillas-mart, 2021)

Conclusion and Recommendations

The ICT proficiency of secondary school administrators is quite low, the researchers found, and as a result, they are unable to guarantee the successful adoption of online learning. The inadequate ICT proficiency of secondary school administrators will severely limit the implementation of online teaching methods in the post-Covid-19 era. Consequently, the researchers suggested that the Government Authority should set up sufficient plans for administrators in-service training on the use of ICT in the administration of the schools. The Post Primary School Management Board shall make sure that the administrators are properly trained on the use of ICT for online learning.

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