

INNOVATIVE ANDRAGOGICAL TOOLS FOR PROMOTING BASIC LITERACY AMONG ADULT LEARNERS IN ENUGU STATE

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Abstract

This study sought to determine the extent to which innovative andragogical tools can be used for promoting basic literacy among adult learners in Enugu State. Two purposes and two research questions guided the study. Descriptive survey research design was adopted. The population of the study comprised 449 adult education facilitators in the entire 17 local government areas of Enugu state. Proportionate stratified random sampling technique was used to sample 225 facilitators. The instrument for data collection was a 16-item researchers' self-developed questionnaire titled Innovative Andragogical Tools for Promoting Basic Literacy Questionnaire (IATBLQ). The instrument was face-validated by three experts. The overall reliability coefficient values of 0.81 were obtained using Cronbach Alpha Statistical method. Data was analysed using mean and standard deviation. Finding showed that to a high extent smartphones and online learning platforms can be used for promoting basic literacy among adult learners in Enugu State. Based on the finding of the study, it was recommended that government and adult education providers should integrate smartphone-based learning strategies into basic literacy programmes by developing and promoting the use of mobile applications, SMS-based learning, and social media platforms to support continuous basic literacy practice among adult learners.

Keywords: Innovative andragogical tools; basic literacy; adult learners

Introduction

Literacy is an important foundation for personal empowerment, social participation, and economic development. It equips adult learners with essential skills in reading, writing, and numeracy, enabling them to function effectively in their daily lives and contribute meaningfully to their communities. Ofoegbu (2020) stated that literacy is the ability to read, write, and understand information in a way that enables individuals to participate actively in social, economic, and civic activities. This emphasizes the functional aspect of literacy which highlights its role in empowering adult learners to make informed decisions. Akinyemi (2022) pointed out that literacy is a continuous process of acquiring reading, writing, and numeracy skills that enable individuals to adapt to societal changes and engage in lifelong learning. Literacy goes beyond basic skills to include a dynamic process that supports personal development and active participation in modern society. Contextually, literacy is the ability of adult learners to read, write, and perform basic numeracy tasks effectively, and to apply these skills in everyday life. Literacy is of different kinds, including basic literacy, functional literacy, digital literacy, financial literacy, health literacy, civic literacy. This study concentrated on basic literacy.

Basic literacy specifically concentrates on reading, writing and numeracy. Eze and Okeke (2021), described basic literacy as the capacity of individuals to read, write, and carry out simple numerical tasks required for daily survival. This stresses the fundamental role of literacy as a core set of skills that enable individuals to communicate, interpret information, and function effectively within their environment. Adeyemi and Bello (2023) further conceptualized basic literacy as the foundational stage of education that provides individuals with essential reading, writing, and numeracy skills necessary for continuous

learning and self-development. Here, literacy extends beyond basic skill acquisition by positioning literacy as a gateway to lifelong learning and improved socio-economic opportunities. Contextually, basic literacy is the ability of adult learners to read, write, and perform basic numeracy operations, and to apply these competencies effectively in everyday situations such as communication, problem-solving, and decision-making.

Adult learners are mature men and women who take part in learning activities. Akinyemi (2022) described adult learners as individuals who have attained a level of maturity and are engaged in learning activities aimed at acquiring knowledge, skills, and competencies for personal development, employment, and societal participation. On the other hand, Oviawe (2021), stated that adult learners are persons who participate in formal, non-formal, or informal education programmes after completing or leaving initial schooling, bringing with them prior experiences that influence their learning preferences. Adult learners are experience-based and tend to prefer practical, problem-solving approaches to learning. In this study, adult learners are individuals aged 18 years and above who seek to acquire reading, writing, and numeracy skills for improved personal, social, and economic development through literacy education programme.

Basic literacy in Enugu State faces challenges that limit effective participation of adult learners. One of the challenges is the low level of functional literacy among adult learners. Nwankwo (2022) indicate that many adult learners struggle to apply basic literacy skills to real-life situations such as interpreting written instructions, managing finances, and engaging in civic activities. This suggests that existing literacy programmes is not sufficiently practical. Another challenge is the continued reliance on traditional teaching methods in adult literacy centers. Oviawe (2021) pointed out that many basic literacy programmes still employ conventional, teacher-centered approaches that do not adequately address the unique characteristics of adult learners, such as their need for experiential, flexible, and problem-oriented learning. This often leads to low learner engagement, poor retention, and limited learning achievement. In addition, limited access to learning resources affects literacy programmes. Akinyemi (2022) asserted that adult literacy centers are frequently under-resourced, with inadequate instructional materials and limited integration of modern educational technologies. This restricts the effectiveness of literacy programmes and reduces opportunities for adult learners to develop relevant skills. Another important factor is the low level of digital literacy among adult learners, which limits their ability to benefit from emerging technology-driven learning opportunities. As observed by Eze and Okeke (2022), the lack of digital skills and access to ICT tools continues to widen the learning gap and reduce participation in modern learning environments. These challenges make it necessary to adopt innovative andragogical tools in basic literacy.

Andragogy is a guiding framework for understanding how adults learn differently from children. Merriam (2021) described andragogy as the art and science of helping adults learn, emphasizing that adult learning is self-directed, experience-based, goal-oriented, and problem-centered. This highlights that adults learn best when they are actively involved in planning, implementing, and evaluating their learning experiences. Similarly, Oviawe (2021) pointed out that andragogy is a learner-centered instructional approach that recognizes the unique characteristics of adult learners, such as their prior experiences, readiness to learn, and need for practical application of knowledge. Andragogy focuses on creating flexible and relevant learning environments that support adult learners in acquiring functional skills for personal and socio-economic development. In this study, andragogy is a learner-centered instructional approach used in basic literacy programmes to support adult learners in acquiring reading, writing, and numeracy skills

based on their experiences, needs, and learning pace. The principles of andragogy explain how adults learn best and guide the design of effective adult education programmes. Principles include self-directed learning, use of learners' experiences, readiness to learn, problem-centered learning, and internal motivation (Ofoegbu, 2020). These principles are necessary because they guide the adoption of innovative andragogical tools in basic literacy programme.

Innovative andragogical tools are modern instructional approaches that combine technology and learner-centered methods to improve how adults learning. Holmes (2021) described innovative andragogical tools as digital and technology-enhanced instructional resources that support flexible, adaptive, and learner-centered learning experiences for adults. It concentrated on the use of emerging technologies to improve learning. Similarly, Nwankwo (2022), stated that innovative andragogical tools are modern teaching strategies and ICT-based resources that facilitate interactive, experience-based, and problem-solving learning among adult learners to improve literacy and lifelong learning. This highlights the integration of innovation with adult learning principles to meet learners' practical needs. In this study, innovative andragogical tools are ICT-supported instructional resources and learner-centered strategies such as interactive whiteboards, mobile learning applications, multimedia systems, and e-learning platforms used to enhance adult learners' participation in basic literacy programme. Examples of innovative andragogical tools are interactive whiteboards, smart phones, online learning platforms, multimedia resources (videos, audio, animations), virtual classrooms (Zoom, Google Meet, Microsoft Teams), digital literacy apps, simulation tools and educational games, project-based learning tools, smart projectors and visualizers and online assessment tools (Google Forms, Kahoot). However, this study focused on smart phones and online learning platforms because of their availability among the adult learners in Enugu State.

Smartphone has been defined in various ways. According to International Telecommunication Union [ITU] (2022) a smartphone is described as a handheld mobile device that integrates the functions of a traditional mobile phone with advanced computing capabilities, including internet connectivity, application support, and multimedia functions, allowing users to perform tasks such as browsing, communication, and learning beyond voice calls and text messaging. Here, there is a convergence of communication and computing technologies in a single portable device. On the other hand, Global System for Mobile Communications Association (GSMA] (2023) sees smartphone as a mobile communication device that operates on an advanced operating system and supports third-party applications, enabling users to access digital services such as social media, e-learning platforms, and productivity tools. Smartphone is an ecosystem-driven device that supports user-generated applications and digital engagement. In this study, smartphone is seen as a portable, internet-enabled mobile device equipped with a touchscreen interface, operating system and application functionality, which allows access to educational content, communication through digital platforms and engagement in interactive learning activities.

Smartphones can enhance basic literacy among adult learners by providing flexible, accessible learning opportunities. UNESCO (2023) noted that smartphones support access to digital literacy applications such as reading apps, vocabulary builders, and language learning platforms, which help adults learners develop foundational reading and writing skills at their own pace. Similarly, OECD (2021) pointed out that smartphones facilitate mobile learning (m-learning) through multimedia resources such as audio books, instructional videos, and interactive text materials, which are particularly beneficial for adult learners with limited formal education backgrounds. These multimodal resources

enhance comprehension and retention of basic literacy education. GSMA (2023) added that communication platforms such as WhatsApp, SMS, and Facebook Messenger provide informal spaces where adult learners can practice reading and writing in real-life situation. This continuous exposure to written communication strengthens basic literacy skills needed for daily interactions. More so, ITU (2022) found that smartphones reduce barriers to education by enabling learning outside traditional classrooms. Adult learners, especially those in rural communities, can access basic literacy programmes without the constraints of time, location, or formal schooling schedules. This flexibility makes smartphones a powerful tool for enhancing adult basic literacy. Another innovative andragogical tool for enhancing basic literacy is online learning.

Online learning platforms are viewed from different perspectives. First, Kebritchi et al., (2020) see online learning platforms as web-based systems that facilitate the delivery, management, and interaction of educational content between instructors and learners through the internet. These platforms integrate instructional materials, communication tools, and assessment features to support structured learning experiences outside traditional classrooms. Second, Choudhury and Pattnaik (2020) describe online learning platforms as systematic digital environments that combine pedagogy, technology, and instructional design to support the transfer of knowledge and skills through electronic media such as the internet and web-based applications. This shows that online learning platforms are not just tools but structured systems that support learning activities, interaction, and knowledge construction. Contextually, online learning platforms are internet-based educational systems or applications that allow adult learners to access instructional materials, participate in interactive learning activities, submit assignments, communicate with facilitators, and engage in self-paced or instructor-led learning aimed at improving basic literacy skills.

Online learning platforms can enhance basic literacy among adult learners. First, online platforms encourage active engagement through quizzes, discussion forums, and assignments, allowing learners to practice reading and writing in meaningful contexts. Continuous practice strengthens functional literacy skills needed for daily communication (Alshammary & Alhalafawy, 2023). They promote collaborative learning and communication skills through tools like WhatsApp groups, discussion boards, and messaging features. These interactions expose adult learners to written language use in real-life situations, thereby reinforcing literacy development (GSMA, 2022). Online learning platforms reduce barriers to education by eliminating geographical and infrastructural constraints, making literacy education more inclusive and accessible to adults in rural communities (World Bank, 2022).

Therefore, basic literacy in Enugu State faces different challenges including low levels of functional literacy, as they struggle to apply basic reading, writing, and numeracy skills to real-life situations, reliance on traditional, teacher-centered instructional methods that are often rigid and poorly aligned with the needs and learning characteristics of adult learners. Hence, this study sought to determine the extent to which innovative andragogical tools can be used for promoting basic literacy among adult learners in Enugu State.

Statement of the Problem

Basic literacy is a cornerstone of personal empowerment, social participation, and economic development. Basic literacy education ought to be inclusive, flexible, and responsive to learners' needs, enabling adults to acquire reading, writing, and numeracy skills through innovative, learner-centered, and technology-supported instructional approaches. Adult learners ought to actively engage with relevant, practical, and accessible

learning tools that reflect their life experiences, promote self-directed learning, and enhance functional literacy for everyday use.

However, in Enugu State, many adult learners still experience low levels of functional literacy, as they struggle to apply basic reading, writing, and numeracy skills to real-life situations such as communication, financial management, and civic participation. Furthermore, adult literacy programmes in the state continue to rely heavily on traditional, teacher-centered instructional methods that are often rigid and poorly aligned with the needs and learning characteristics of adult learners. This situation limits learner engagement, reduces motivation, and hinders meaningful learning achievement. Therefore, this study determined the extent to which innovative andragogical tools can be used for promoting basic literacy among adult learners in Enugu State.

Purpose of the Study

The general purpose of the study is to determine the extent innovative andragogical tools can be used for promoting basic literacy among adult learners in Enugu State.

Specifically, the study sought to:

1. Ascertain the extent to which smartphones can be used to promote basic literacy among adult learners in Enugu State.
2. Determine the extent to which online learning platforms can be used to promote basic literacy among adult learners in Enugu State.

Research Questions

The following research questions will guide the study

1. To what extent can smartphones be used to promote basic literacy among adult learners in Enugu State?
2. To what extent can online learning platforms be used to promote basic literacy among adult learners in Enugu State?

Methods

The study adopted descriptive survey research design. According to Nworgu (2015) descriptive survey describes in a systematic manner the characteristics, features or facts about a given population. The study was carried out in Enugu State. The population of the study comprised 449 adult education facilitators in the entire 17 local government area of the state. Proportionate stratified random sampling technique was used to sample 50% of the total population which is 225 facilitators. The instrument for data collection was a 16-item researchers' self-developed questionnaire titled Innovative Andragogical Tools for Promoting Basic Literacy Questionnaire (IATBLQ). The instrument was face-validated by three experts. The overall reliability coefficient values of 0.81 was obtained using Cronbach Alpha Statistical method indicating that the instrument was reliable and therefore, was used for data collection. Data was collected using on-the-spot delivery and retrieval approach to ensure high return rate. Data collected was analysed using mean and standard deviation.

Results

Table 1: Mean Response on the Extent Smartphones can be used to Promote Basic Literacy among Adult Learners

S/N	Item Statement	Mean	SD	Decision
1	Helping adult learners improve their ability to read simple texts.	3.51	.62	VHE
2	Using smartphones to practice writing through text messages	3.76	.56	VHE
3		3.00	.54	HE
4	Helping adult learners improve their vocabulary skills.	2.97	.52	HE

5	Making it easier for adult learners to learn at their pace.	2.91	.43	HE
6	Helping adult learners understand reading materials	3.02	.52	HE
7	better.	3.03	.59	HE
8	Encouraging adult learners to practice spelling regularly.	3.14	.64	HE
	Increasing adult learners' interest in literacy programmes.	3.16	0.55	HE
	Providing easy access to literacy learning materials anytime			
Cluster Mean				

The data in Table 1 indicate the extent smartphones can be used in promoting basic literacy among adult learners. The item *helping adult learners improve their ability to read simple texts* recorded the highest mean score (3.76), indicating a very high extent (VHE). Other items such as practicing writing through text messages (3.51), improving vocabulary (3.00), and encouraging spelling practice (3.02) also show that smartphones can significantly support various literacy skills. Additionally, items like learning at one's own pace (2.97), better understanding of reading materials (2.91), increased interest in literacy programmes (3.03), and access to learning materials anytime (3.14) all fall within the high extent range. The relatively low standard deviation values (ranging from 0.43 to 0.64) show that respondents' opinions are closely clustered, suggesting a strong agreement among them. Therefore, the cluster mean of 3.16 and SD of 0.55 showed that to a high extent smartphones can be used to promote basic literacy among adult learners in Enugu State.

Table 2: Mean Responses on Extent Online Learning Platforms Can Be Used to Promote Basic Literacy among Adult Learners

S/N	Item Statement	Mean	SD	Decision
9	Helping adult learners improve their reading skills.	2.95	.57	HE
10	Using online platforms to submit written assignments that improve writing skills.	3.73	.44	VHE
11	Providing access to literacy learning materials such as e-	3.89	.30	VHE
12	books	3.55	.65	VHE
13	Improving adult learners' comprehension skills through online quizzes	3.48	.65	HE
14	Helping adult learners practice written communication.	3.17	.53	HE
15	Allowing adult learners to learn at flexible times.	3.65	.47	VHE
16	Motivating adult learners to continue literacy education.	3.21	.54	HE
	Reducing barriers such as distance and time in accessing literacy education.	3.45	0.52	HE
Cluster Mean				

Table 2 presented the mean responses on extent online learning platforms can be used to promote basic literacy among adult learners. Different items recorded very high extent (VHE) ratings, including submitting written assignments (3.73), access to e-books and learning materials (3.89), improving comprehension through online quizzes (3.55), and motivating learners to continue literacy education (3.65). This suggests that online platforms can be particularly effective in enhancing writing, comprehension, and learner motivation. Other items such as improving reading skills (2.95), practicing written communication (3.48), flexible learning time (3.17), and reducing barriers like distance and time (3.21) were rated high extent (HE), indicating consistent positive contributions. The standard deviation values (ranging from 0.30 to 0.65) show low variability, meaning respondents generally agreed in their opinions. Therefore, the cluster mean of 3.45 and SD

of 0.52 showed that to a high extent online learning platforms can be used to promote basic literacy among adult learners in Enugu State.

Discussion

The finding of the study showed that to a high extent smartphones can be used to promote basic literacy among adult learners in Enugu State. Smartphones provide flexible and learner-centered opportunities that align with the needs of adult learners, who often balance the acquisition of basic literacy with work and family responsibilities. The UNESCO (2023) observed that smartphones enable access to various digital literacy applications such as reading tools, vocabulary builders, and language learning platforms. These tools allow adult learners to develop reading and writing skills at their own pace, thereby improving their basic literacy. In the same vein, the OECD (2021) emphasized that smartphones support mobile learning through multimedia resources like audiobooks, instructional videos, and interactive texts. These resources enhance different learning styles that promote basic literacy.

Furthermore, the GSMA (2023) highlighted that communication platforms such as WhatsApp, SMS, and Facebook Messenger create informal environments where adult learners can practice reading and writing in real-life scenario. This constant interaction with written communication strengthens their literacy skills and builds confidence in everyday usage. Additionally, the ITU (2022) noted that smartphones help to reduce traditional barriers to education, such as distance, time constraints, and limited access to formal learning centres. This is particularly relevant for adult learners in rural or underserved areas, as smartphones enable them to participate in literacy programmes conveniently and continuously.

Finding further showed that to a high extent online learning platforms can be used to promote basic literacy among adult learners in Enugu State. Online platforms provide interactive and learner-centered environments that encourage consistent practice of literacy skills. Fahad, et al (2023) noted that online learning platforms enhance active engagement through quizzes, assignments, and discussion forums. These activities create meaningful opportunities for adult learners to practice reading and writing, thereby strengthening their functional literacy skills required for everyday communication. In addition, the GSMA (2022) emphasized that online platforms promote collaborative learning through communication tools such as WhatsApp groups, discussion boards, and messaging features. These interactive spaces expose adult learners to practical uses of written language in real-life contexts, which helps reinforce literacy development and improves their confidence in communication. Furthermore, the World Bank (2022) highlighted that online learning platforms help reduce barriers to education by removing geographical and infrastructural limitations. This makes basic literacy education more accessible and inclusive, especially for adult learners in rural or underserved communities who may not have regular access.

Conclusion

The study which focused on innovative andragogical tools for promoting basic literacy among adult learners in Enugu State concludes that both smartphones and online learning platforms are effective tools which can promote basic literacy among adult learners in Enugu State.

Recommendations

Based on the findings of the study, it was recommended that:

1. Government and adult education providers should integrate smartphone-based learning strategies into basic literacy programmes by developing and promoting

the use of mobile applications, SMS-based learning, and social media platforms to support continuous basic literacy practice among adult learners.

2. Stakeholders in adult education should adopt and expand the use of online learning platforms by providing reliable internet access, training facilitators, and designing interactive digital content that will enhance literacy development among adult learners.

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