

Research Articles

Digitalization and ELT Pedagogical Processes in Nigeria: Challenges and the Way Forward

Abstract

This paper explores digitalization and ELT pedagogical processes in Nigeria, challenges and the way forward. Nigeria is in dire need of vibrant English Language teachers who are digitally literate and can effectively deploy digital tools for teaching and learning of the language to improve learners' learning outcomes at all levels of education and social contexts. There are numerous challenges confronting digital language pedagogy which need to be addressed to make the country to rise above its present shortcomings in teaching and learning of English Language. These challenges include: lack of digital infrastructure, poor digital literacy, poor internet connectivity, poverty and more. The way forward for English Language pedagogy in Nigeria is also highlighted in this paper. English Language teachers are charged to embrace digital pedagogy as a 'new normal' to enhance effective teaching that could produce globally-relevant learning outcomes. The Nigerian government is also enjoined to do the needful, in terms of supporting digital education and digitalization of English Language teaching in particular.

Keywords: Digital Pedagogy; English Language; Digital Tools; English Language Teachers

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English Language is an official language in Nigeria and plays a vital role as communication processes gravitate around it in the country; and it is especially, a prerequisite for admission into higher institutions of learning (Fasae & Ogunleye, 2023). Besides, English Language has also become a lingua franca because Nigeria is a highly multi-lingual and multi-cultural society with people of diverse linguistic backgrounds and over four hundred and fifty (450) ethnic groups and languages, requiring the adoption of a common language for ease of communication and social interactions (Chiedu, & Ohwonohwo, 2021). It is a language that has a wide global reach with an unmatched feat in the history of world's languages (Muhammad, Ya'u, Aliyu & Hassan, 2018). Considering its linguistic position in Nigeria, it is important to stress the need to teach the language effectively, so

that it can continue to play its social role as a key language that is necessary to bolster development and national cohesion. Thus, English Language teachers have a tremendous role to play to enhance the learning processes of this language that has come to stay. The call for effective teaching of English in Nigeria is even more compelling as digitalization integration into the 21st century pedagogy has become a 'new normal' that has to be embraced in order to align with the dictate of the age. Technology can enhance language learning and improve overall teaching and learning processes (Paiva & Bittencourt, 2020).

Digital technologies occupy a central position in modern teaching of languages all over the world. EdTech provides multiple accesses to quality pedagogical processes to facilitate personalized learning experiences, and equips teachers with pedagogical tools in Nigeria (Okpara, Abiakwu & Ezeanolue, 2025). In the light of the growing need of digital education in Nigeria, Sarumi (2024) posited that a wholistic digital transformation in Nigeria's education system has become urgent and inevitable. The call for digital transformation in Nigeria's educational system and language pedagogy in particular is crucial because digitalization is at the centre of modern literacy and global relevance. According to Daniel (2020), cited in Ukozor and Muhammad (2024), digitalization involves electronic platforms which include, but are not limited to, Zoom, WhatsApp, Google Meets, Google Hangouts, Skype, Microsoft Teams, or FaceTime, where learning may be done synchronously or asynchronously online. Digital pedagogy also involves a process of converting text, picture, video, and music into digital language and transmitted using digital tools like computer, smartphones, internet and so on to a target audience. Digital learning tools have been found to improve language skills among learners (Johari, 2017; Lin et al. 2019). Supporting this position, Yang (2024) reported that studies have confirmed a significant correlation between AI technology and language learning's impact on English learning outcomes, self-regulated learning as well as L2 motivation, among EFL learners. Artificial intelligence (AI) is at the centre of digital teaching and learning today. AI can be defined as "computing systems that are able to engage in human-like processes such as learning, adapting, synthesizing, self-correction and use of data for complex processing tasks" (Popenici, & Kerr, 2017). According to Wang (2018), AI refers to devices' or systems' ability to think as human beings, having the power and skills to learn, perceive, and decide rationally and intelligently. Aligning with the position of Font de la Vall and Araya (2023), AI language learning tools help users learn and improve their skills in a foreign language. In addition, Crompton, Edmet, Ichaporia and Burke (2024) argued that English language learning utilizing AI technology is more common than it is in any other subject. Peña-Acuña and Corga (2024) added that tools like chatbots can enhance the learning of English as a second language as they could improve learners' pronunciation, and adapt content according to their progress. AI tools like: Machine translation tools can translate text or speech from one language to another (Ducar & Schocket, 2018); Language tutoring systems can enhance personalized language learning (Woo & Choi, 2021); and Language generation systems like ChatGPT can generate original text in English (Gatt & Krahmer, 2018).

Integrating EdTech and AI to pedagogical approaches calls for a new orientation and redefinition of pedagogical approaches (Ayanwale et al., 2022), especially for English Language teachers in Nigeria. This means that modern language pedagogy requires a paradigm shift to address the teaching and learning gaps that may pose difficulties to digital transformation within the English Language education landscape. Nigeria has a rich linguistic and cultural diversity, necessitating innovative pedagogical approaches to language teaching (Ngozi, Anuonye & Obioma, 2024). Innovative pedagogical processes which include creative teaching methods, strategies, and approaches are critical to meet needs of language learners.

The objective of this positional paper is to examine digital pedagogy, challenges and the way forward relying on secondary data and literature downloaded on the subject-matter, using Google search engine.

Digital Innovative Tools

Emerging technologies are changing and shaping educational landscape as a result of EdTech support in aiding learning through mobile learning devices, cloud computing, 3-D learning tools, blended learning and multifaceted technologies like laptops, ipods, ipads, Smartphone, tablet computer and e-book and games (Nsofor, Bello, Umeh & Oboh, 2015). There are many digital tools that can be deployed by English Language teachers in Nigeria to enhance their teaching approaches. Online resources that can aid learning of English Language are many on the internet with the availability of online dictionaries, encyclopedia and various e-textbooks in different aspects of English language like syntax, phonetics/phonology, morphology, English varieties and English composition (Chiedu, & Ohwonohwo, 2021). These resources can transform English Language teachers' digital pedagogy, making their classes more fascinating and engaging. Ngozi et al (2024) identified the following digital tools which could help language teachers to enrich their virtual classes.

Online Language Learning Platforms

They refer to the various websites and apps that can offer Interactive English Language lessons, exercises, and quizzes. Online platforms can provide innovative resources to foster teachers' teaching methods and learning.

Language Learning Apps

There are language mobile apps created for language learning, involving features like vocabulary exercises, pronunciation guides, and interactive lessons. English Language teachers can deploy these apps to engage students with personalized or collaborative learning.

Virtual Classrooms

Virtual classrooms can help English Language teachers to transmit digital classes to learners in different geographical spread locations. Virtual classrooms can conquer distance.

Language Learning Games

These are games apps and platforms that provide innovative educative games that may enhance vocabulary development and retention and other language skills in a fascinating manner.

Educational Websites and Blogs

These are websites and blogs designed teaching and learning of language education. They can provide platforms provide language teaching methods, lesson plans and other language support resources.

Language Exchange Platforms

These are online platforms that can link language learners with native speakers for language exchange and provide real-life language practice with cultural dynamics that help second language learners and aid language proficiency.

Digital Assessment Tools

These tools include online quizzes, tests, and assessments designed for language learning and tools for language educators to assess students' progress effectively.

Language Pronunciation Apps

These are digital apps designed to aid pronunciation for both educators and learners to refine their speaking and listening skills.

Font de la Vall and Araya (2023), also identified the following AI language tools that can help English Language teachers to create innovative virtual classrooms for learners.

Machine translation tools

These are AI tools with algorithms that are capable of translating automatically text or speech from one language to another in real time. They are useful in language pedagogy as learners can easily get translations of phrases or sentences of one language in another. English Language teachers can use these tools to enrich their language teaching approaches. These tools are accessible in mobile apps or online platforms. Examples of machine translation tools include Google Translate and Bing Translator.

Language tutoring systems

These tools use AI algorithms to enhance personalized language learning and feedback by providing interactive learning experiences that can improve learners' language skills or competence.

Language generation systems

These are AI tools that can produce original text like reports, essays or stories in a language. Language generating system tools can help English Language tutors to create fascinating stories that can enrich virtual classes. Students too can leverage on these tools to aid them in report or essay writing, in a given language based on a set of input parameters. They could produce reports, social media posts, or news stories.

Review of Digital Transformation and ELT in Nigeria

Educational digitalization is no longer new in the Nigerian educational ecosystem. Its integration into the educational system has continued to shape pedagogical approaches. Digital learning in the 21st century has been predicted to have a positive impact on students' learning outcomes (Purwadi et al., 2020); as EdTech can facilitate learning and provide novel learning approaches (Gilakjani, 2017; Ahmadi, 2018).

Oni and Guilen (2025) explored the role of collaborative learning, such as Google Docs, Zoom, and Microsoft Teams in Nigerian education system and confirmed that the integration of collaborative tools into educational practices could foster students' engagement and real-time peer learning. Ogbuehi (2023) investigated the extent of integration of technology in English language classes towards the enhancement of vocabulary learning in a study involving 40 English language teachers from government, missionary and private secondary schools. The researchers reported availability of digital tools like computers and internet connectivity for teaching English vocabulary. They also emphasized that these digital tools were not often used for teaching and learning activities.

Adebowale, Omidun, Abiahu, and Odetayo (2025) examined the impact of digital learning platforms (DLPs) on English language proficiency in tertiary institutions, focusing on students in Lagos higher institutions with emphasis on writing, listening, reading, and speaking skills. Using a mixed-methods approach, the study collected data from 200 students from surveys, pre-and post-language proficiency tests, and semi-structured interviews. Results indicated that interactive lessons, multimedia resources, and gamified learning elements significantly improved listening (4.3/5) and reading (4.1/5) skills. The researchers also reported that there was notable writing and speaking proficiency among the participants. This study is a testament to the workability of English Language digital pedagogy.

Jolayemi, Bidemi and Adebola (2023) investigated availability and utilization of multimedia for effective teaching and learning of English language skills in selected secondary schools in Osun State and found that there were insufficient digital learning resources for both students and teachers for utilization. The researchers also confirmed that inadequate funds, inadequate trained personnel, poor or epileptic power supply and inadequate supply of computer hardware were impediments to digital language teaching and learning in the state.

Faloye (2022) investigated the perception of English language teachers concerning digital pedagogy in teaching oral English in Ekiti State Government colleges with a population of 78 and a sample of 48 English language teachers. Results revealed that 65% of the teachers could distinguish between digital and conventional pedagogy while 65% experienced no significant challenges with digital pedagogy during oral English lessons. Findings also confirmed that majority of the English language teachers admitted that students feel bored when taught oral English with charts, confirming the need to sustain digital pedagogy for teaching oral English.

Review on Challenges of ELT Digitalization in Nigeria

Recent literature demonstrates that digital innovation is gradually transforming ESL teaching and learning in Nigeria. ICT, mobile technologies, digital games, multimedia resources and generative AI offer opportunities to increase learner engagement, personalise instruction, extend learning beyond the classroom and improve access to authentic English-language resources (Isa, 2026; Ogbuehi, 2025; Xodabande, 2026). However, the evidence equally demonstrates that technology availability does not automatically produce pedagogical innovation. Infrastructure, internet access, teacher competence, affordability and digital inequality remain important constraints (Yakubu & Joseph, 2025).

Jolayemi et al. (2023) in their study reported inadequate funds, inadequate trained personnel, poor or epileptic power supply and inadequate supply of computer hardware were impediments to digital language teaching and learning. Similarly, Adebowale et al. (2025) identified platform instability, unreliable internet access, and limited instructor-student interaction as obstacles to digital English Language pedagogy. Ogbuehi (2023) observed that some English Language teachers were not familiar with internet software programmes designed for vocabulary teaching.

Digital education, in which English Language education is a part of, is facing a number of challenges in Nigeria. Dele-Ajayi and Taddese (2020) opined that policies, government leadership, private-sector partnerships, and digital infrastructure are the challenges of digital education in Nigeria. In addition, Badmus (2025) spotted high device costs, limited access to infrastructure, and inadequate training opportunities as barriers affecting the use of digital technologies in education in general. Ukozor and Muhammad (2024) also argued that poor funding, shortage of digital facilities, power problem, poor

internet connection, higher cost of digital facilities, poor digital skills and knowledge and shortage of digital experts, poor implementation problem, resistance to change and corruption are major challenges facing digital basic education in Nigeria. Furthermore, Olokooba and Shehu (2018) postulated that Nigeria in general and Kwara State in particular is lagging behind in the use of technology in the teaching and learning environment, including the teaching and learning of English Language which was the major concern of the authors.

The Way Forward

We have so far seen in this paper the existence and challenges of digital English pedagogy in Nigeria. At this point, it is necessary to look for the way forward since English digital pedagogy is needed to drive the effective teaching and learning of the language. The challenges before English Language in incorporating digital technology to language pedagogy require determination from all stakeholders to be surmounted.

English language teachers should rise up to the occasion to ensure commitment on their part to improve the status of language digital teaching in Nigeria. Thus, language teachers should make digital literacy a priority to enhance their digital teaching potentials. Aligning with the view of Chiedu and Ohwonohwo (2021), teaching of English Language through e-learning requires proper planning and designing of e-language material. This emphasizes the need for English Language educators to be strategic when deploying digital tools to teach. According to Ajepe and Yusuff (2024) laziness on the part of teachers could pose challenges to digital education. Etim (2018) also suggested that technology literacy entails a good understanding of modern digital technological tools like the social media and the internet and effectively using them to transmit information to a target audience. Thus, the 21st century English Language teacher must technology literate and be ready to integrate it into language pedagogy for effective teaching. They should be up to date in digital literacy and be able to guide language learners on the proper use of digital tools.

Jolayemi et al. (2023) suggested that government should equip schools with more digital teaching and learning resources for effective teaching and learning. They also recommended stable power supply and adequate training for teachers through seminars, conferences and workshop to update their knowledge on modern digital teaching and learning resources. Ahmed (2024) suggested investment in digital infrastructure, development of teacher and training programmes for the enhancement ESL education in Nigeria. Similarly, Faloye (2022) suggested training in digital skills for teaching oral English to address gaps in English Language digital pedagogy. Oni et al. (2025) emphasized government's comprehensive training for teachers and students for the practical application of collaborative tools, in addition to establishing clear learning outcomes to assess the effectiveness of integration digital tools in teaching and learning environments. Badmus (2025) emphasized availability of digital infrastructure as solution to challenges. Okpara et al. (2025) strategic collaborations, investments, a commitment to holistic education, harnessing the full potential of EdTech and AI as panaceas to the lingering challenges of digital pedagogy in Nigeria.

Ukozor and Muhammad (2024) added that government should subsidize the price of digital facilities for teachers and students and provide tax reliefs for telecoms to enable them to reduce the costs of their services. Subsidy on digital facilities can help language teachers to be able to have access to needed tools that can enhance digital language pedagogy. Luo and Yang (2021) observed that students from low-resources background experienced difficulty with technology and internet connectivity and limited participation in digital learning processes. Sarumi (2024) suggested massive

investment in digital infrastructure, teacher training, curriculum reforms, and policy strengthening as ways of addressing digital pedagogy.

Conclusion

This paper has examined digitalization and ELT pedagogical processes in Nigeria, challenges and the way forward. The paper discovers the importance of the use of digital tools for teaching and learning English Language. It also addresses the urgent need for English Language teachers to embrace digital pedagogy to enrich their teaching processes to make language learning more engaging and productive. Challenges of digital pedagogy with particular reference to English Language has been discussed. The way forward for English Language pedagogy in Nigeria has also been discussed. It is hope that English Language teachers in Nigeria will rise to the occasion to embed the much-needed digital pedagogy within their pedagogical processes to enhance effective English teaching and learning in Nigeria.

Recommendations for ESL Education in Nigeria

- **Strengthening digital infrastructure in educational institutions**

Government and educational authorities should provide reliable electricity, affordable internet connectivity, functional language laboratories, digital devices and adequate technical support in schools and tertiary institutions. Digital innovation cannot be sustained when teachers and learners lack reliable access to the basic infrastructure required for technology-enhanced learning.

- **Developing a national framework for digital ESL education**

Relevant education authorities should develop clear guidelines for integrating digital technologies into English language teaching. The framework should address mobile-assisted language learning, multimedia instruction, online learning, digital assessment and the responsible use of artificial intelligence.

- **Prioritizing teacher digital professional development**

Continuous professional development programmes should be organised to improve ESL teachers' technological, pedagogical and digital-assessment competencies. Training should move beyond basic computer literacy to practical application of digital technologies in teaching listening, speaking, reading, writing, vocabulary and grammar.

- **Promoting affordable and low-bandwidth digital solutions**

Given differences in internet access across Nigerian communities, digital ESL programmes should incorporate offline resources, downloadable materials, mobile-compatible applications and low-data platforms to reduce the digital divide between learners in urban and rural areas.

- **Integrating AI literacy into ESL teacher education**

Teacher education institutions should introduce responsible AI use into English language education. Teachers and student teachers should learn how to use generative AI for lesson planning, language practice, formative assessment and feedback while also understanding plagiarism, misinformation,

privacy and academic integrity.

Encourage digital content development using Nigerian contexts.

- **Selecting digital tools according to specific learning objectives**

The question should not simply be “What technology can I use?” but rather “Which technology will best help my students achieve this particular language-learning outcome?”

- **Developing continuous digital competence**

Teachers should regularly improve their knowledge of digital platforms, mobile applications, multimedia resources, AI tools and online assessment systems. Participation in workshops, webinars, professional learning communities and self-directed online courses should become part of continuous professional development.

- **Using mobile technologies strategically**

Since smartphones are increasingly accessible to many Nigerian learners, teachers can incorporate them into vocabulary activities, pronunciation practice, online reading, listening exercises, collaborative writing and formative assessment, while establishing clear rules for responsible use.

- **Integrating AI responsibly into ESL instruction**

Teachers should use generative AI to support—not replace—language learning. For example, students can use AI to generate conversation prompts, receive feedback on drafts, practise vocabulary and simulate communicative situations. Teachers should require students to critically evaluate AI-generated responses and demonstrate their own understanding.

- **Employing multimedia to address different learning needs**

Teachers should combine text, audio, video, images and interactive activities where appropriate to provide learners with multiple ways of encountering and practising English.

- **Teaching digital and information literacy alongside English**

ESL teachers should help students evaluate online information, identify unreliable sources, avoid plagiarism, cite digital materials appropriately and communicate responsibly in online environments. Digital literacy should therefore become part of contemporary language competence.

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