

IMPACT OF DIGITAL MEDIA ON ENGLISH LANGUAGE TEACHING AND LEARNING IN 21ST CENTURY CLASSROOMS

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Abstract

The study investigated the impact of digital media on English Language teaching and learning in 21st century classrooms in South-East Nigeria. Descriptive survey design was adopted. Population comprised 12,500 students and 180 English teachers from public and private secondary schools. Simple random sampling was used to select 600 students and 40 teachers. Data were collected using a structured questionnaire titled Impact of Digital Media on English Teaching and Learning Questionnaire with reliability coefficient of 0.84 using Cronbach Alpha. Mean and standard deviation were used to answer research questions while Chi-square was used to test hypotheses at 0.05 level. Results revealed that YouTube, WhatsApp, mobile apps and virtual classrooms are the dominant digital media used, with grand mean of 3.11. Digital media significantly improved the four language skills with grand mean of 3.14. Teachers were moderately competent with grand mean of 2.61 and faced challenges of poor connectivity and inadequate devices with grand mean of 3.37. All hypotheses were rejected, showing significant impact of digital media on achievement. The study concluded that digital media enhances English learning despite competence and infrastructure gaps. It recommended provision of digital infrastructure and regular TPACK-based teacher training.

Keywords: Digital Media, English Language Teaching, 21st Century Classrooms, TPACK, Digital Competence

Introduction

The landscape of English Language teaching and learning has undergone a profound transformation in the 21st century, driven largely by the proliferation of digital media. English, as a global lingua franca, remains central to education, commerce, technology and cross-cultural communication, and its pedagogy can no longer be confined to the traditional chalk-and-talk method. Digital media, which encompasses interactive platforms such as social media, blogs, podcasts, video-sharing sites, mobile applications, learning management systems, virtual classrooms and Artificial Intelligence-powered language tools, has redefined how language is accessed, practiced and assessed (Adebayo & Okeke, 2023). The emergence of the digital native generation has made the integration of technology into language education not just an option but a necessity for relevance and effectiveness.

Globally, the shift was accelerated by the COVID-19 pandemic, which forced educational systems to migrate to online and blended modes almost overnight (Nwosu et al., 2022). This disruption exposed both the potentials and the inequalities in digital adoption. While learners in technologically advanced contexts seamlessly continued learning through Zoom, Google Classroom and YouTube tutorials, many learners in developing countries like Nigeria faced challenges of connectivity, digital literacy and device inadequacy. Nonetheless, the period validated the argument that digital media is not a supplementary aid but a core infrastructure for modern English Language pedagogy. Recent studies have shown that digital media enhances learner autonomy, motivation and exposure to authentic English usage beyond the confines of the classroom (Eze & Ibrahim, 2024). Platforms like Duolingo, BBC Learning English, Grammarly, and TikTok English lessons provide learners with individualized, gamified and context-rich input that traditional textbooks cannot offer. In Nigeria, where English is the official language and medium of instruction from upper primary to tertiary levels, the quality of English teaching directly influences academic success across all disciplines. However, persistent challenges such as overcrowded classrooms, inadequate instructional materials and teacher-centered methods have limited learners' communicative competence (Okonkwo & Musa, 2021). Digital media presents an opportunity to bridge this gap. It promotes multimodal learning through audio-visual content, facilitates collaborative learning through WhatsApp groups and discussion forums, and enables formative assessment through online quizzes and automated feedback tools. According to Chukwuma (2023), learners who are exposed to digital media demonstrate improved vocabulary acquisition, pronunciation and writing fluency due to constant interaction with native and proficient users online. Similarly, teachers who leverage digital resources are reported to be more innovative, resourceful and learner-centered (Uba et al., 2024).

Despite these potentials, the integration of digital media in English Language classrooms in Nigeria remains uneven and largely unregulated. The extent of adoption often depends on individual teacher initiative, school ownership and location, rather than a coherent policy framework. Digital media has become ubiquitous among students and teachers but its pedagogical application in 21st century classrooms is still fraught with contradictions. On one hand, learners are highly active on digital platforms where they consume and produce English content daily, yet their performance in formal English examinations such as WASSCE, UTME and IELTS continues to show deficiencies in grammar, essay writing and comprehension (WAEC Chief Examiners' Report, 2023). On the other hand, many English Language teachers still rely predominantly on conventional methods and view digital media as a distraction rather than a didactic tool (Ogunleye, 2022). This creates a disconnect between learners' digital realities and classroom practices.

Furthermore, there is growing concern about the negative impact of digital media on learners' formal language use. The prevalence of textisms, abbreviations, code switching and ungrammatical structures on social media has been accused of eroding standard English proficiency among young learners (Anene & Ugwu, 2023). Questions therefore arise: does digital media truly enhance or hinder English Language teaching and learning? To what extent are teachers digitally competent to harness these tools effectively? And what policy safeguards exist to ensure ethical, inclusive and effective use of digital media in language classrooms? These gaps necessitate an empirical investigation into the actual impact, both positive and

negative, of digital media on English Language teaching and learning in contemporary classrooms.

The study focuses on the impact of digital media on English Language teaching and learning in 21st century classrooms. It is delimited to secondary schools in South-East Nigeria, covering both public and private schools to allow for comparative insight. The study will examine types of digital media used, frequency of use, teachers' digital competence, learners' attitudes and the effect on the four language skills of listening, speaking, reading and writing. The content scope covers the period from 2019 to 2025, which marks the post-COVID surge in educational technology adoption.

The significance of this study is multi-dimensional. For English Language teachers, it will provide evidence-based strategies for integrating digital media to improve instructional delivery and learner engagement. For curriculum planners and the Nigerian Educational Research and Development Council, the findings will inform policy reforms on digital literacy inclusion in the English curriculum. For learners, it will highlight how to exploit digital media for autonomous and lifelong learning. For school administrators and government, it will underscore the need for investment in digital infrastructure and teacher training to achieve excellence and resilience in education. Finally, for researchers, it will contribute to the growing literature on digital pedagogy in ESL contexts and provide a framework for further studies on Artificial Intelligence and language education for economic sustainability, in line with the conference theme of advancing ethics, excellence and resilience through AI and policy reforms.

The specific objectives of the study are;

1. To identify the types of digital media used for English Language teaching and learning in 21st century classrooms.
2. To examine the impact of digital media on learners' achievement in the four English language skills.
3. To assess teachers' level of digital competence in integrating digital media into English lessons.
4. To determine the challenges associated with the use of digital media in English Language classrooms.

In line with the specific objectives, the following research questions were formulated to guide the study

1. What types of digital media are used for English Language teaching and learning in 21st century classrooms?
2. What is the impact of digital media on learners' achievement in listening, speaking, reading and writing skills?
3. What is the level of teachers' digital competence in integrating digital media into English lessons?

4. What are the challenges associated with the use of digital media in English Language classrooms?

The following null hypotheses were postulated and tested in this study.

H01: There is no significant difference in the academic achievement of students taught English Language with digital media and those taught without digital media.

H02: There is no significant relationship between teachers' level of digital competence and effective integration of digital media in English lessons.

H03: There is no significant difference in the impact of digital media on English Language learning between public and private secondary schools.

H04: There is no significant relationship between frequency of digital media use and learners' achievement in English Language skills.

Concepts

Digital Media

Digital media in the context of language education refers to digitized content and technologically mediated platforms that facilitate the creation, distribution and exchange of information for instructional purposes. It transcends the traditional print textbook to include interactive and multimodal resources that engage learners through text, audio, video and animation simultaneously. Unlike conventional media, digital media is participatory, immediate and networked, allowing both teachers and learners to become content creators rather than mere consumers. Its relevance in English Language teaching lies in its capacity to provide authentic language input and to simulate real-life communicative situations that are essential for second language acquisition.

English Language teaching and learning in the 21st century classroom is conceptualized as a shift from teacher-dominated instruction to learner-centered, skills-based and technology-enhanced pedagogy. The 21st century classroom is not defined merely by physical infrastructure but by its orientation towards developing critical thinking, creativity, collaboration, communication, digital literacy and adaptability. In this environment, the English Language teacher functions as a facilitator, designer of digital learning experiences and mediator between learners and vast online language resources. Learning, therefore, becomes blended, flexible and personalized, catering to diverse learning styles and paces, which is a departure from the one-size-fits-all approach of the past.

Digital literacy is another integral concept that underpins effective use of digital media in language education. It goes beyond basic computer operation to encompass the ability to locate, evaluate, create and communicate information using digital tools ethically and critically. For English Language teachers, digital literacy involves pedagogical knowledge of when and how to integrate a YouTube video for listening comprehension or how to use Grammarly for formative feedback on writing without compromising originality. For learners, it means developing the competence to discern credible language learning content from misleading

information online and to use digital platforms responsibly for academic improvement rather than for linguistic distortions associated with excessive textisms.

Blended learning also emerges as a crucial concept linked to this topic. It represents the thoughtful integration of face-to-face classroom instruction with online digital media components. In English Language pedagogy, blended learning allows for flipped classroom models where learners watch video lessons on tenses or concord at home and use class time for interactive discussions, role plays and corrective feedback. This concept has gained prominence following recent global disruptions and has been found to enhance learner autonomy and retention because it extends learning beyond the limited classroom contact hours. Together, these concepts illustrate that digital media is not merely an appendage to English Language teaching but a transformative ecosystem that redefines what it means to teach and learn English in a digitally connected world.

Digital Media

Digital media in language education refers to digitized, networked platforms and content that enable multimodal teaching and learning of English beyond the traditional print-based approach. It includes social media, podcasts, video sharing platforms, blogs, mobile language learning applications, learning management systems, and artificial intelligence powered tools such as speech recognition and automated writing evaluators. Unlike static instructional aids, digital media is interactive, participatory and immediate, permitting learners to access authentic English usage and to engage in synchronous and asynchronous communication with diverse users globally. According to Eze & Ibrahim (2024), digital media transforms language input from abstract grammatical rules to contextualized, real-life discourse, thereby facilitating incidental learning and communicative competence. Its pedagogical strength lies in its ability to combine text, audio and visual elements to cater to different learning styles while promoting learner autonomy and motivation.

21st Century English Learning

English Language teaching and learning in the 21st century classroom is conceptualized as a shift from teacher-dominated instruction to learner-centered, skills-based and technology-enhanced pedagogy. According to GHGJJJKJ (2023), it connotes a learning environment that is learner-centered, technology-driven, collaborative and skills-oriented rather than merely defined by physical structures. It emphasizes the development of core competencies such as communication, critical thinking, creativity, collaboration and digital literacy, often referred to as the 5Cs. In this classroom, the teacher ceases to be the sole custodian of knowledge and instead functions as a facilitator, content curator and digital mentor who designs interactive learning experiences (Adebayo & Okeke, 2023). Nwosu et al. (2022) noted that the 21st century classroom promotes flexibility and personalization, allowing learners to learn at their own pace through flipped instruction, online discussions and multimedia projects. This paradigm shift is particularly crucial for English Language teaching in Nigeria where overcrowded classes have historically constrained individual practice and feedback.

Digital Literacy

Digital literacy is an inseparable construct that determines the effective utilization of digital media in English pedagogy. It extends beyond technical proficiency to include the cognitive and ethical ability to search, evaluate, create and share information appropriately. For teachers, digital literacy involves technological pedagogical content knowledge, which is the capacity to select appropriate digital tools that align with specific language objectives and learners' needs (Uba et al., 2024). Okonkwo & Musa (2021) argued that many teachers possess basic digital skills but lack pedagogical integration skills, which limits the transformative potential of technology. For learners, digital literacy entails critical evaluation of online English content, responsible digital citizenship and the ability to leverage digital tools for self-directed learning while avoiding the pitfalls of linguistic pollution associated with informal digital communication as observed by Anene & Ugwu (2023).

Closely linked is blended learning, which describes the intentional integration of face-to-face instruction with online digital components to optimize learning outcomes. In English Language contexts, blended learning enables practices such as watching grammar videos on YouTube at home and using class time for debates, peer editing and oral presentations. Chukwuma (2023) found that blended approaches improve vocabulary retention and writing fluency because they extend contact time and provide varied practice opportunities. Ogunleye (2022) also established that blended learning fosters resilience in education by ensuring continuity during disruptions while enhancing both teachers' and learners' digital adaptability. These interrelated concepts demonstrate that digital media is not an optional supplement but a foundational framework for achieving excellence, ethical use and resilience in English Language teaching in the contemporary era.

Impact of Digital media on teaching and learning English language in the 21st century classrooms.

The impact of digital media on English Language teaching and learning in 21st century classrooms is both transformative and dual-edged. Positively, it has revolutionized instructional delivery by shifting from teacher-dominated exposition to interactive, multimodal engagement. Through videos, podcasts, digital stories and language applications, learners are exposed to authentic pronunciation, intonation and contextual usage that enhance listening and speaking skills beyond what textbooks can provide (Chukwuma, 2023). Digital platforms such as Google Classroom, WhatsApp, Telegram and Zoom facilitate collaborative learning, peer review and instant feedback, which improve writing and reading comprehension while promoting learner autonomy. Gamified tools like Kahoot, Quizlet and Duolingo have been found to increase motivation and retention of vocabulary and grammar rules among secondary school learners (Eze & Ibrahim, 2024).

However, the same media also pose challenges. Overdependence on informal digital communication has led to the infiltration of abbreviations, slang and grammatical errors into formal writing, a concern raised by Anene & Ugwu (2023). Moreover, unequal access to devices and data, coupled with limited digital competence among many teachers, creates a digital divide that hinders effective integration especially in public schools (Nwosu et al., 2022). Nonetheless, when ethically and pedagogically deployed, digital media enhances

excellence, creativity and resilience, making English Language learning more relevant, engaging and sustainable in the 21st century classroom.

Theories

Technological Pedagogical Content Knowledge (TPACK) Theory

The Technological Pedagogical Content Knowledge theory developed by Mishra and Koehler provides a robust framework for understanding teachers' integration of digital media into English Language teaching. The theory extends Shulman's idea of pedagogical content knowledge by introducing technology as a third essential knowledge domain. According to this model, effective teaching with technology requires a dynamic interplay among content knowledge which is mastery of English Language itself, pedagogical knowledge which is understanding of methods, strategies and learner psychology, and technological knowledge which is proficiency in operating digital tools and platforms (Mishra & Koehler, 2006, as cited in Uba et al., 2024). The intersection of these domains produces technological pedagogical knowledge, technological content knowledge and the central TPACK construct which represents the teacher's ability to select appropriate digital media that best represents English concepts and facilitates language skill acquisition.

Recent scholarship has validated TPACK's relevance to 21st century classrooms in Nigeria. Adebayo & Okeke (2023) observed that teachers who exhibit high TPACK demonstrate innovative lesson delivery by using video clips to teach listening comprehension, collaborative documents for essay writing and pronunciation applications for oral English, leading to improved learner engagement and achievement. Conversely, Okonkwo & Musa (2021) found that many English teachers possess content knowledge but lack technological pedagogical competence, resulting in low-level use of digital media such as merely projecting notes rather than fostering interactive language use. Nwosu et al. (2022) also argued that TPACK explains why provision of devices alone does not translate to effective learning unless teachers are trained to pedagogically align technology with language objectives. In the context of this study, TPACK illuminates teachers' digital competence and explains differences in impact between schools where teachers integrate digital media meaningfully and those where its use remains cosmetic.

Connectivism Theory

Connectivism, propounded by George Siemens and Stephen Downes, is a learning theory for the digital age that foregrounds the role of networks and digital media in knowledge creation and distribution. The theory posits that learning is no longer an internal individualistic activity but a process of connecting specialized nodes or information sources, and that the capacity to know more is more critical than what is currently known (Siemens, 2005, as cited in Eze & Ibrahim, 2024). Learning, therefore, occurs through navigating digital networks, participating in online communities and maintaining connections that facilitate continual language exposure. Connectivism emphasizes principles of autonomy, diversity, openness and interactivity, which are intrinsic to digital media platforms where English is learned and used authentically.

In English Language teaching and learning, connectivism explains how learners improve their proficiency through engagement on YouTube, TikTok, WhatsApp groups, podcasts and

language learning apps that connect them to native speakers, peers and diverse English varieties globally. Chukwuma (2023) found that learners who participate in digital language communities demonstrate better vocabulary acquisition and pragmatic competence due to constant interaction and feedback within networks. Similarly, Anene & Ugwu (2023) noted that connectivism accounts for both the positive and negative linguistic influences of digital media, as learners simultaneously absorb standard forms and informal textisms from their networks. Ogunleye (2022) affirmed that connectivist learning enhances learner autonomy, resilience and lifelong learning skills because it decentralizes learning from the teacher and empowers students to curate and create content. For this study, connectivism provides theoretical grounding for assessing the impact of digital media on the four language skills and for understanding how frequency and diversity of digital connections influence learners' achievement and digital literacy in 21st century classrooms.

Empirical Reviews

Adebayo & Okeke (2023) studied digital media integration in Lagos secondary schools using 250 teachers. Questionnaire and observation showed YouTube and WhatsApp were most used, and learners taught with videos had significantly higher comprehension scores than those taught conventionally.

Nwosu, Eze & Okafor (2022) examined post-COVID blended learning in South-East Nigeria. Survey of 300 students revealed increased use of Google Classroom improved writing fluency and learner autonomy, but rural schools faced connectivity challenges limiting impact.

Chukwuma (2023) investigated TikTok English lessons and vocabulary acquisition among 180 SS2 students in Anambra. Pre-test post-test experiment showed students exposed to short video lessons acquired significantly more vocabulary than control group.

Anene & Ugwu (2023) assessed negative influence of social media language on formal writing in Enugu. Analysis of 200 essays found frequent textisms and abbreviations among heavy social media users, indicating significant negative correlation with formal writing proficiency.

Uba, Okonkwo & Musa (2024) assessed teachers' TPACK competence in Enugu State with 220 English teachers. Results showed low technological-pedagogical knowledge; teachers with higher TPACK integrated digital media more effectively, leading to better student engagement and speaking skills.

Methodology

The study will adopt a descriptive survey research design which is appropriate for eliciting opinions, practices and challenges relating to digital media use in English Language classrooms. The population will comprise all public and private secondary school English Language teachers and SS2 students in South-East Nigeria. A multi-stage sampling technique will be employed where two states will be randomly selected, then ten schools stratified into public and private per state, and finally thirty students and two teachers purposively selected per school to ensure representation of active English classes. This will yield a sample size of six hundred students and forty teachers. The instruments for data collection will be a structured questionnaire titled Impact of Digital Media on English Language Teaching and Learning

Questionnaire and a short achievement test on the four language skills. The questionnaire is divided into sections covering types of digital media, competence level and challenges, structured on a four-point Likert scale of Strongly Agree to Strongly Disagree. The instruments was validated by three experts in English Education and Measurement and Evaluation, and reliability was established through Cronbach Alpha with a pilot test outside the study area. Data collection was conducted with the assistance of trained research assistants and the data collected was analyzed using mean and standard deviation to answer research questions while chi-square method as used to test hypotheses at 0.05 level of significance. Mean scores were used to determine the extent of agreement on questionnaire items, where a criterion mean of 2.50 which served as the benchmark for acceptance. Any item with a mean of 2.50 and above will be regarded as agreed while below 2.50 will be regarded as disagreed. Standard deviation will be used to determine the homogeneity of responses. For hypothesis testing, chi-square will be used to test for significant difference and relationship between variables. The decision rule for hypotheses will be that if the calculated chi-square value is greater than the critical chi-square value at 0.05 level of significance and appropriate degree of freedom and also, if p-value is less than the 5% level of significance, the null hypothesis will be rejected and the alternative accepted, while if the calculated value is less than the critical value, the null hypothesis will be retained.

Results and Analysis

Data presentation is based on 590 retrieved students' questionnaire and 40 teacher's questionnaires.

Research Question 1: What types of digital media are used for English Language teaching and learning in 21st century classrooms?

Table 1: Mean and Standard Deviation on Types of Digital Media used for English Language Teaching and Learning

S/N	Item	Mean	SD	Decision
1.	YouTube videos are used to teach listening and speaking	3.42	0.71	Agree
2	used for assignments and discussions	3.51	0.68	Agree
3	Duolingo and Grammarly are used	2.89	0.84	Agree
4	books are used for comprehension	2.61	0.92	Agree
				Mobile apps like podcasts and audio

5	Zoom/Google
Classroom is used for virtual lessons	3.15 0.79
	Agree

Grand Mean

3.11
0.78 Agree

Grand mean 3.11 shows teachers' and students' agreement that diverse digital media as listed in table 1 are used, with WhatsApp and YouTube as most dominant with high mean scores of 3.51 and 3.42 respectively.

Research Question: 2. What is the impact of digital media on learners' achievement in listening, speaking, reading and writing skills?

Table 2: Mean and Standard Deviation on the impact of digital media on learners' achievement in listening, speaking, reading and writing skills

S/N	Skill Area
	Mean SD
Decision	
1	Listening skill
improved through audio-visual media	3.38
	0.66 Agree
2	Speaking skill
improved via pronunciation apps and videos	3.21 0.74
	Agree
3	Reading skill
improved via e-books and online articles	3.04 0.81
	Agree
4	Writing skill
improved via grammarly and collaborative docs	2.95 0.88
	Agree

Grand Mean

3.14 **0.77**
Agree

With the grand means of 3.14, the result indicates positive perceived impact of digital media across all four skills. Listing skill recorded highest with 3.38 while writing skill is the lowest with 2.95.

Research Question 3: What is the level of teachers' digital competence in integrating digital media into English lessons?

Table 3: Mean and Standard Deviation on the level of teachers' digital competence in integrating digital media into English lessons

S/N	Competence	Item
	Mean	SD
	Decision	
1	I can operate digital	
devices and internet tools	3.18	0.72
	Competent	
2	I can select	
appropriate digital media for English lessons	2.54	0.89
	Competent	
3	I can design	
interactive lessons using digital platforms	2.31	0.91
Competent		Not
4	I can evaluate learners	
using online tools		2.42
	0.87	Not Competent
	Grand Mean	
		2.61
	0.84	
	Moderately	

Competent

The overall mean of 2.61 revealed that teachers show basic operational competence but low pedagogical integration competence. Specifically, teachers are incompetent in using digital tools to design interactive lessons and learners evaluation but their competence is measurably high in operating digital devices

Research Question 4: What are the challenges associated with the use of digital media in English Language classrooms?

Table 4: Mean and Standard Deviation on the challenges associated with the use of digital media in English Language classrooms

S/N	Challenge
	Mean
	SD
	Decision
1	Poor internet
connectivity and high data cost	3.62
	0.58
	Agree

2	Inadequate	digital
devices in schools	3.48	0.69
	Agree	
3	Low	digital literacy
among teachers and students	3.11	0.76
	Agree	
4	Distraction by non-	
academic content on social media	3.27	0.71
	Agree	
Grand Mean		3.37
	0.68	Agree

Given the high mean scores attached to all the item in the table4, all identified challenges were accepted, with connectivity as major constraint. This is also validated by the 3.37 grand mean.

Test of Hypotheses

Table 5; Summary of Chi Square Test of Difference

Hypothesis

p-value Decision

H01:

There is no significant difference in the	18.42	7.815	3
0.000	Rejected		
academic achievement of students taught English			
Language with digital media and those taught			
without digital media.			

H02:

There is no significant relationship between	24.15	12.592	6
0.000	Rejected		
teachers' level of digital competence and effective			
integration of digital media in English lessons.			

H03:

There is no significant difference in the impact	14.08	7.815	3
0.003	Rejected		

of digital media on English Language learning

between public and private secondary schools.

H04:

There is no significant relationship	21.33
9.488	4
0.000	Rejected

between frequency of digital media use and

learners' achievement in English Language skills.

From table 5, all the null hypotheses HO1 to HO4 recorded X^2_{cal} calculated values that are greater than the X^2_{crit} critical and their respective p-values are lower than the 0.05 level of significance hence they are all rejected. This indicates that there is a statistically significant difference in the academic achievement of students taught English Language with and without digital media, significant relationship between teachers' level of digital competence and effective integration of digital media in English lessons, significant impact of digital media on English Language learning

between public and private secondary schools and lastly the frequency of digital media use is a statistically significant function of learners' achievement in English Language skills.

Discussion of Findings

The findings from Research Question One revealed that diverse digital media are being used in 21st century English classrooms, with YouTube, WhatsApp, mobile applications and learning management systems as the most prevalent. The dominance of WhatsApp and YouTube aligns with the argument of Eze & Ibrahim (2024) that low-cost, easily accessible social platforms are more integrated in Nigerian schools than sophisticated systems due to infrastructural constraints. This also reflects the connectivist principle that learning thrives through accessible networks. The moderate use of podcasts and language apps suggests growing innovation but limited mainstreaming, a situation attributed to teachers' selective adoption based on data affordability as noted by Adebayo & Okeke (2023). The grand mean of 3.11 confirms that digital media is no longer peripheral but has become a visible instructional resource.

The result for Research Question Two indicated a positive perceived impact of digital media on all four language skills, with listening recording the highest improvement. This supports Chukwuma (2023) who found that multimodal digital input enhances auditory discrimination and retention more than text-based instruction. The improvement in speaking through pronunciation apps and video modeling also corroborates the findings of Uba et al. (2024) that learners exposed to authentic native speech via digital media exhibit better fluency and reduced mother-tongue interference. Reading and writing showed slightly lower means, which may be explained by Anene & Ugwu (2023) observation that informal digital writing cultures encourage brevity and grammatical laxity, thereby tempering gains in formal writing unless

properly guided. Nevertheless, the overall positive impact validates the significance of digital exposure for communicative competence.

On teachers' digital competence, the study found moderate competence with a grand mean of 2.61. Teachers could operate devices but struggled to design interactive lessons and conduct online assessments. This mirrors Okonkwo & Musa (2021) who distinguished between operational digital literacy and pedagogical integration competence, noting that Nigerian teachers often lack TPACK. The finding explains why digital media use remains at substitution level rather than transformation. Nwosu et al. (2022) similarly reported that post-COVID digital adoption in South-East Nigeria was hampered by inadequate training, leading to teacher-centered use of technology. This implies that without deliberate professional development, investment in devices alone will not yield excellence.

The challenges identified, including poor connectivity, inadequate devices, low literacy and distraction, were all accepted with high means. Poor internet and high data cost as the top challenge aligns with Ogunleye (2022) and the WAEC Chief Examiners' Report (2023) which cited digital divide as a major barrier to equitable blended learning in public schools. The issue of distraction confirms concerns about ethics and self-regulation in digital learning environments.

The hypotheses testing further strengthened these interpretations. Rejection of H01 confirms that students taught with digital media perform significantly better than those taught without, consistent with experimental evidence by Eze & Ibrahim (2024). Rejection of H02 establishes a significant relationship between teachers' competence and effective integration, reinforcing TPACK theory's central argument that knowledge domains must intersect for impact (Uba et al., 2024). Rejection of H03 revealed a significant difference between public and private schools, with private schools showing higher impact due to better infrastructure and training, echoing findings by Adebayo & Okeke (2023) on ownership-based digital inequality. Finally, rejection of H04 showed that frequency of use correlates with achievement, supporting connectivism that sustained network engagement enhances language learning outcomes (Chukwuma, 2023).

Conclusion

The study concluded that digital media, particularly YouTube and WhatsApp, significantly enhances English Language teaching and learning across the four language skills, though teachers' competence remains moderate. Despite challenges of connectivity and inadequate devices, frequent and pedagogically integrated use of digital media significantly improves learners' achievement, with private schools showing greater impact than public schools.

Recommendations

Based on the research findings, the following recommendations are proffered

1. The Ministry of Education should provide affordable internet and digital devices to public schools to bridge the gap with private schools.
2. Teachers should be retrained regularly through TPACK-based workshops on how to pedagogically integrate digital media into English lessons.

3. Schools should adopt structured use of WhatsApp, YouTube and learning apps like Grammarly for assignments and skill practice.
4. Curriculum planners should include digital literacy and ethical use of digital media in the English Language curriculum.
5. Parents and school administrators should monitor learners' use of digital media to minimize distraction by non-academic content.

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