

## **Influence of Digital Instructional Tools on the Teaching of English Language in tertiary institutions in Anambra State**

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### **Abstract**

The teaching of English Language in tertiary institutions has continued to face challenges due to overdependence on traditional methods that limit students' engagement and comprehension. Despite the global shift towards technology-driven learning, many lecturers encounter difficulties in adopting digital instructional tools, often due to inadequate facilities, poor internet access, unstable electricity supply, and limited technical skills. The study employed a descriptive survey design to examine the use, challenges, and effectiveness of digital instructional tools in English Language teaching in tertiary institutions. A sample of 160 lecturers was selected, and data were gathered using a validated self-structured questionnaire divided into demographic and research sections, with responses rated on a 4-point Likert scale. Reliability was established through Cronbach's alpha. Descriptive statistics such as frequency, percentage, mean, and standard deviation were used to analyze research questions, with 2.50 as the decision benchmark. Hypotheses were tested using ANOVA. The findings revealed that lecturers moderately utilized digital instructional tools in English Language teaching, with high usage of projectors, multimedia, and video resources (mean = 3.36–3.46). However, integration faced challenges such as unstable electricity (mean = 3.53), inadequate technology (3.25), poor internet (3.08), high maintenance cost (3.30), and need for training (3.29). Despite these, lecturers perceived digital tools as effective in enhancing engagement (3.22), improving comprehension (3.03), saving time (3.26), extending practice beyond class (3.26), and improving outcomes (3.32). ANOVA showed no significant differences in utilization ( $p = .917$ ) or challenges ( $p = .918$ ), but significant differences in effectiveness perceptions ( $p = .022$ ). The study concludes that digital instructional tools are indispensable in English Language teaching and recommends improved institutional support, training, and provision of modern facilities to strengthen technology integration.

**Keywords:** *digital instructional tools, English Language teaching, utilization, challenges, perceptions, tertiary institutions*

## INTRODUCTION

In many English language classrooms, teaching still depends heavily on traditional textbooks and teacher-centered methods. Such practices limit opportunities for active participation, authentic communication, and personalized feedback (Ghafar, 2023). At the same time, schools are increasingly gaining access to digital instructional tools such as mobile applications, interactive whiteboards, language learning platforms, and artificial intelligence-driven tutors. However, the extent to which these digital resources improve teaching practices and learning outcomes in English language classrooms is not yet fully established (Lee & Wallace, 2018; Hung, 2015). Research on technology in language learning has gone through different stages. In the early years, computers were mostly used for drills and repetitive grammar exercises. Later, the focus shifted toward communicative and interactive uses of technology that encouraged collaboration and exposure to authentic resources (Agbatogun, 2013).

Studies show that when digital tools are carefully integrated into teaching, they can help students engage with language in real-life contexts, encourage learner autonomy, and provide a range of input through text, audio, and video (Bakare, 2024). The integration of digital instructional tools into English language teaching has significant implications for curriculum design and implementation. First, the curriculum must shift from a rigid, textbook-centered model to a more flexible and learner-centered framework that accommodates digital literacy and multimodal learning. This means that learning outcomes should not only focus on reading, writing, listening, and speaking but also include the ability to navigate digital platforms, evaluate online resources, and collaborate through technology (Kumi-Yeboah et al, 2020).

Furthermore, digital tools require curricula to emphasize task-based and project-based learning, where students actively engage in authentic communication through multimedia resources, virtual exchanges, and online collaboration. Assessment strategies must also evolve from traditional pen-and-paper tests to include e-portfolios, digital projects, and performance-based evaluations that capture communicative competence in real-world digital contexts (Engelhardt et al, 2021).

Teacher training becomes central to curriculum planning, as educators must be prepared to integrate technology meaningfully and adapt lessons to diverse learning environments. Studies in Anambra State emphasize that effective school administration and sustainable development rely heavily on continuous teacher capacity building (Ohamobi & Manafa, 2022; Okafor, Ohamobi, & Manafa, 2018). Collaborative teaching practices also enhance teachers' performance, preparing them for innovations such as mobile assisted language learning which provides flexible, anytime learning opportunities (Osegbue, Manafa, & Ohamobi, 2021; Veletsianos & Houlden, 2019). Moreover, integrating artificial and emotional intelligence in leadership supports educators in navigating digital pedagogies effectively (Ohamobi & Osegbue, 2021).

Studies on mobile applications demonstrate that students are more likely to retain vocabulary and practice language skills when they can use apps outside the classroom. Mobile devices also allow students to participate in collaborative speaking and listening tasks, as well as collect information from real-life environments, making language learning more practical and engaging (Irielle, 2024). Another important area of digital instruction is the use of corpus tools, automated writing evaluation systems, and online communication platforms. Corpus tools

expose students to authentic examples of language use and help them recognize patterns across different registers.

Automated writing evaluation software has been found to encourage revision and reflection on grammar and vocabulary, although some scholars point out that such tools often fail to capture broader discourse features such as cohesion and argument structure (Adegoju & Oyeboode, 2015). More recently, the use of video-conferencing tools and collaborative online platforms has provided teachers with new opportunities to promote real-time communication and peer learning across cultural and geographical boundaries. Hence there is need to investigate the influence of digital instructional tools on the teaching of English language in tertiary institutions in Anambra State

### **Objectives**

1. To examine the extent to which digital instructional tools are utilized in the teaching of English Language in tertiary institutions.
2. To assess the challenges lecturers encounter in integrating digital instructional tools in the teaching of English Language.
3. To evaluate lecturers' perceptions of the effectiveness of digital instructional tools in enhancing English Language teaching.

### **Research questions**

1. To what extent are digital instructional tools utilized in the teaching of English Language in tertiary institutions?
2. What challenges do lecturers encounter in integrating digital instructional tools in the teaching of English Language?
3. What are lecturers' perceptions of the effectiveness of digital instructional tools in enhancing English Language teaching?

### **Hypotheses**

1. There is no significant difference in the extent to which digital instructional tools are utilized in the teaching of English Language in tertiary institutions based on lecturers' academic qualifications.
2. There is no significant difference in the challenges lecturers encounter in integrating digital instructional tools in the teaching of English Language based on their academic qualifications.
3. There is no significant difference in lecturers' perceptions of the effectiveness of digital instructional tools in enhancing English Language teaching based on their academic qualifications.

### **METHOD**

The study adopted a descriptive survey research design to investigate the utilization, challenges, and effectiveness of digital instructional tools in teaching English Language in tertiary institutions. The population of the study comprised lecturers in tertiary institutions, and a sample of 160 lecturers was purposively and randomly selected to ensure representation across gender, age, academic qualification, and years of teaching experience. A self-structured

questionnaire was the primary instrument for data collection. The instrument was divided into two sections: Section A obtained demographic data such as age, academic qualification, teaching experience, and gender, while Section B elicited responses on the research questions using a 4-point Likert scale ranging from Strongly Disagree (1) to Strongly Agree (4). The instrument was validated by experts in educational measurement and language education, and reliability was established using Cronbach's alpha, which yielded acceptable internal consistency.

Data were collected through direct administration with the assistance of trained research aides to ensure a high retrieval rate. The responses were analyzed using descriptive statistics including frequency counts, percentages, means, standard deviation, variance, skewness, and kurtosis to answer the research questions, with a benchmark mean of 2.50 as the acceptance criterion. To test the null hypotheses, Analysis of Variance (ANOVA) was employed since the independent variable, academic qualification, had more than two categories (Bachelor's, Master's, PhD, and Professional Diploma).

## RESULT AND DISCUSSION

### Result

**Table 1. Age distribution of respondents**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	20–29 years	91	56.9	56.9	56.9
	30–39 years	28	17.5	17.5	74.4
	40–49 years	8	5.0	5.0	79.4
	50 years and above	33	20.6	20.6	100.0
	Total	160	100.0	100.0	

The table shows that most respondents were within 20–29 years (91, 56.9%), followed by 50 years and above (33, 20.6%), 30–39 years (28, 17.5%), while the least were 40–49 years (8, 5.0%). This indicates that the majority of respondents were relatively young, reflecting a youthful teaching population.

**Table 2. Academic qualification of respondents**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Bachelor's Degree	96	60.0	60.0	60.0
	Master's Degree	24	15.0	15.0	75.0
	Doctorate (PhD)	16	10.0	10.0	85.0
	Professional Diploma in Education	24	15.0	15.0	100.0
	Total	160	100.0	100.0	

The table shows that most respondents held a Bachelor's Degree (96, 60.0%), followed by Master's Degree holders (24, 15.0%) and Professional Diploma in Education (24, 15.0%),

while the least were PhD holders (16, 10.0%). This indicates that the teaching workforce is dominated by first-degree holders, with fewer advanced degree qualifications.

**Table 3. Years of teaching experience of respondents**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than 5 years	21	13.1	13.1	13.1
	5–10 years	115	71.9	71.9	85.0
	11–15 years	10	6.3	6.3	91.3
	Above 15 years	14	8.8	8.8	100.0
	Total	160	100.0	100.0	

The table indicates that the majority of respondents had 5–10 years of teaching experience (115, 71.9%), followed by less than 5 years (21, 13.1%), above 15 years (14, 8.8%), and 11–15 years (10, 6.3%). This suggests that most respondents were mid-level educators with moderate teaching experience.

**Table 4. Gender distribution of respondents**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	62	38.8	38.8	38.8
	Female	98	61.3	61.3	100.0
	Total	160	100.0	100.0	

The table shows that female respondents (98, 61.3%) were more than male respondents (62, 38.8%). This indicates that the teaching workforce in the study area is female-dominated, reflecting the common trend of higher female participation in English Language teaching.

**Research question 1:** To what extent are digital instructional tools utilized in the teaching of English Language in tertiary institutions?

**Table 5. Utilization of digital instructional tools in teaching English Language**

	Mean	Std. Deviation	Variance	Skewness	Kurtosis	Std. Error	Std. Error
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic
Lecturers regularly use digital tools such as projectors, multimedia slides, and audio-visuals during English Language lessons.	3.36	.482	.233	.577	-.192	-1.688	.381

Online platforms (e.g., Google Classroom, Moodle, Edmodo) are frequently used to support English Language teaching.	3.33	.485	.235	.556	.192	-1.267	.381
Digital dictionaries and grammar applications are integrated into English Language lessons.	3.01	.714	.509	-.009	.192	-1.019	.381
Video-based resources (e.g., YouTube, language labs) are commonly employed to improve students' language skills.	3.39	.551	.303	-.141	.192	-.915	.381
Most English Language courses incorporate computer-based assessments and online assignments.	3.46	.537	.288	-.220	.192	-1.181	.381
Valid N (listwise)							

The results reveal that lecturers moderately utilize digital instructional tools in English Language teaching. Computer-based assessments and online assignments recorded the highest mean (3.46), followed by video-based resources such as YouTube and language labs (3.39), and projectors, multimedia slides, and audio-visuals (3.36). Online platforms like Google Classroom and Moodle (3.33) were also frequently used. However, digital dictionaries and grammar applications had the lowest mean (3.01), indicating limited integration.

**Research question 2:** What challenges do lecturers encounter in integrating digital instructional tools in the teaching of English Language?

**Table 6. Challenges lecturers encounter in integrating digital instructional tools in teaching English Language**

	Mean	Std. Deviation	Variance	Skewness	Std. Error	Kurtosis	Std. Error
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic
Lack of stable electricity disrupts the effective use of digital instructional tools.	3.53	.593	.352	-.831	.192	-.283	.381
Inadequate access to modern instructional technologies limits their integration into English Language teaching.	3.25	.854	.730	-2.223	.192	6.801	.381

Poor internet connectivity hinders the effective use of digital platforms for teaching.	3.08	.604	.364	-.035	.192	-.250	.381
Lecturers require more training to effectively integrate digital tools in teaching English.	3.29	.587	.344	-.159	.192	-.551	.381
High cost of maintaining digital tools discourages their regular use in teaching.	3.30	.524	.274	.197	.192	-.640	.381
Valid N (listwise)							

The findings show that lecturers face significant challenges in using digital instructional tools. Lack of stable electricity ranked highest with a mean of (3.53), highlighting power supply as the greatest barrier. High maintenance costs (3.30) and the need for more training (3.29) also posed constraints. Inadequate access to modern technologies (3.25) and poor internet connectivity (3.08) further hindered effective integration. These results indicate that infrastructural deficits, high costs, and limited professional development remain major obstacles, reducing the full potential of digital tools in English Language teaching across tertiary institutions.

**Research question 3:** What are lecturers' perceptions of the effectiveness of digital instructional tools in enhancing English Language teaching?

**Table 7. Lecturers' perceptions of the effectiveness of digital instructional tools in enhancing English Language teaching**

	Mean Statistic	Std. Deviation Statistic	Variance Statistic	Skewness Statistic	Std. Error	Kurtosis Statistic	Std. Error
Digital instructional tools make English Language lessons more engaging and interactive.	3.22	.549	.301	.071	.192	-.224	.381
Students understand English Language concepts better when digital resources are used.	3.03	.709	.503	-.679	.192	.964	.381
The use of digital tools saves time and enhances lesson delivery in English Language teaching.	3.26	.720	.519	-.428	.192	-.982	.381

Digital platforms provide opportunities for students to practice English beyond the classroom.	3.26	.596	.355	-.154	.192	-.507	.381
Digital instructional tools are more effective than traditional methods in improving students' language learning outcomes.	3.32	.483	.233	.584	.192	-1.226	.381
Valid N (listwise)							

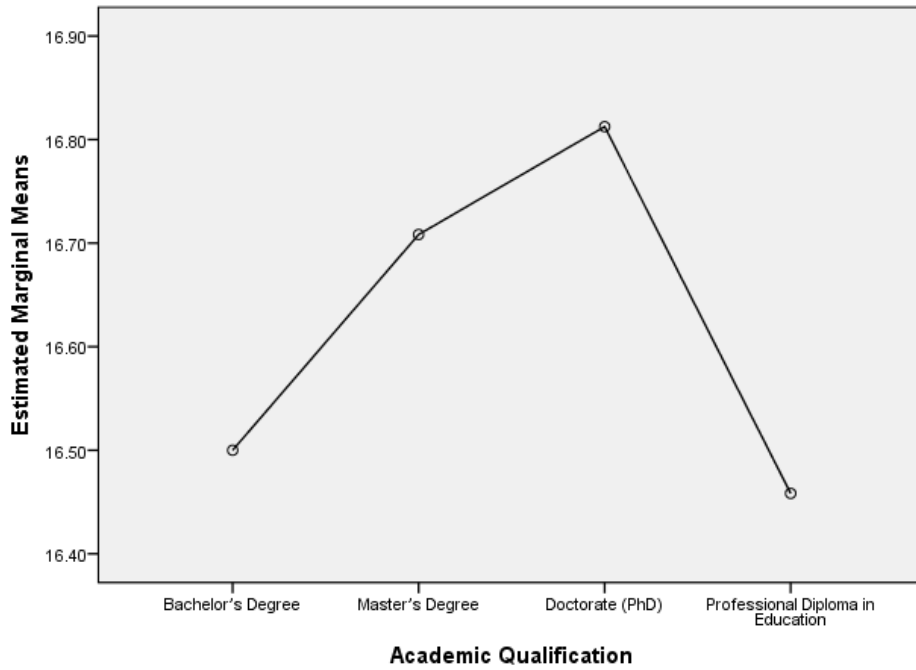
The results reveal generally positive perceptions among lecturers regarding the effectiveness of digital instructional tools. Digital tools were viewed as more effective than traditional methods in improving learning outcomes (mean = 3.32). They also save time and enhance lesson delivery (3.26), while providing opportunities for practice beyond the classroom (3.26). Lecturers agreed that digital resources make lessons engaging and interactive (3.22), and help students understand concepts better (3.03). Overall, the findings suggest that lecturers recognize the significant role of digital instructional tools in enhancing teaching effectiveness and fostering improved student learning experiences.

**Hypothesis 1:** There is no significant difference in the extent to which digital instructional tools are utilized in the teaching of English Language in tertiary institutions based on lecturers' academic qualifications.

**Table 8. Tests of Between-Subjects Effects on utilization of digital instructional tools based on lecturers' academic qualifications**

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	2.140	3	.713	.169	.917
Intercept	28284.669	1	28284.669	6692.016	.000
Qualification	2.140	3	.713	.169	.917
Error	659.354	156	4.227		
Total	44519.000	160			
Corrected Total	661.494	159			

The analysis shows no significant difference in the utilization of digital instructional tools among lecturers based on academic qualifications. The F-value (.169) with a significance level of (.917) is greater than the 0.05 threshold, indicating no statistical difference. While the intercept value was high ( $F = 6692.016$ ,  $p = .000$ ), the qualification variable did not contribute significantly. This implies that lecturers, regardless of holding bachelor's, master's, doctorate, or professional diploma qualifications, utilize digital tools similarly. Therefore, the null hypothesis is accepted, confirming that academic qualification does not significantly influence digital tool utilization in English Language teaching.



**Figure 1. Estimated marginal means of utilization of digital instructional tools based on academic qualification**

The chart shows slight variations in utilization across qualifications. Lecturers with PhD recorded the highest mean (16.82), followed by Master’s degree holders (16.71). Bachelor’s degree holders had (16.50), while those with Professional Diploma reported the lowest (16.48). Despite fluctuations, differences are marginal, supporting the null hypothesis.

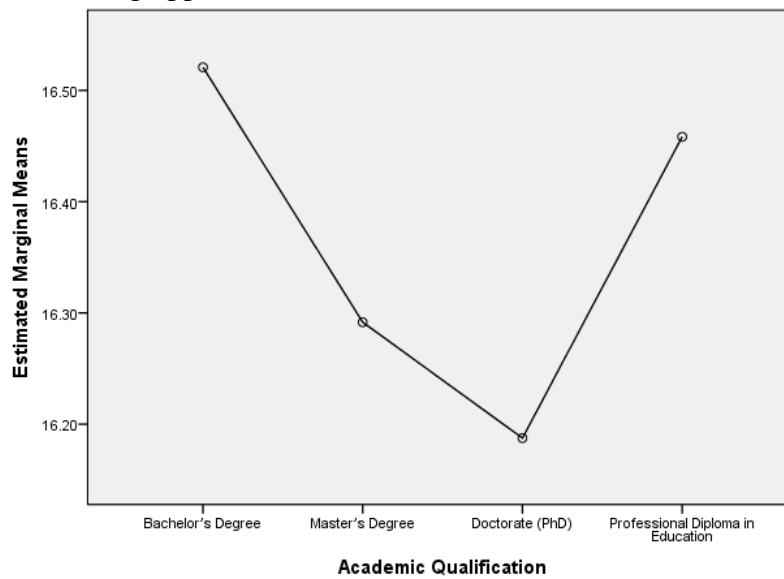
**Hypothesis 2:** There is no significant difference in the challenges lecturers encounter in integrating digital instructional tools in the teaching of English Language based on their academic qualifications.

**Table 9. Tests of Between-Subjects Effects on challenges of integrating digital instructional tools based on academic qualifications**

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	2.181	3	.727	.168	.918
Intercept	27422.678	1	27422.678	6353.569	.000
Qualification	2.181	3	.727	.168	.918
Error	673.312	156	4.316		
Total	43939.000	160			
Corrected Total	675.494	159			

The results reveal no significant difference in challenges faced by lecturers in integrating digital instructional tools across academic qualifications, with  $F(3,156) = 0.168$ ,  $p = 0.918$ , which is greater than 0.05. The corrected model sum of squares was (2.181), while the error sum of squares stood at (673.312). The high intercept value (27422.678) with a significance of (0.000) indicates consistent challenges across groups. Since the significance level (0.918) exceeds 0.05, the null hypothesis is accepted, implying that lecturers, regardless

of qualification, encounter similar barriers such as unstable electricity, poor internet, and inadequate training opportunities.



**Figure 2. Estimated marginal means of challenges lecturers encounter in integrating digital instructional tools based on academic qualifications**

The graph shows minor variations in challenges across qualifications. Bachelor’s degree holders reported the highest challenge mean (16.52), followed by Professional Diploma holders (16.48). Master’s degree lecturers scored slightly lower (16.29), while PhD holders recorded the least challenges (16.19). Despite these fluctuations, the ANOVA result ( $F = 0.168$ ,  $p = 0.918$ ) indicates no statistically significant difference. This means all groups experience similar difficulties, such as unstable electricity, poor internet access, and high maintenance costs. Therefore, the null hypothesis is accepted, affirming that academic qualification does not significantly affect the challenges lecturers face in adopting digital instructional tools.

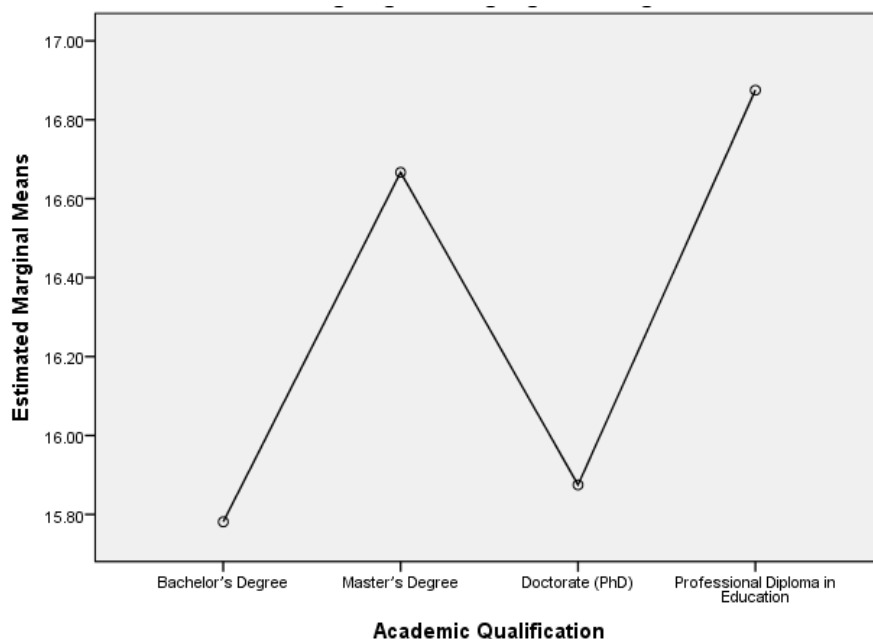
**Hypothesis 3:** There is no significant difference in lecturers’ perceptions of the effectiveness of digital instructional tools in enhancing English Language teaching based on their academic qualifications.

**Table 10. Tests of Between-Subjects Effects on lecturers’ perceptions of the effectiveness of digital instructional tools based on academic qualifications**

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	32.660	3	10.887	3.291	.022
Intercept	27204.917	1	27204.917	8222.916	.000
Qualification	32.660	3	10.887	3.291	.022
Error	516.115	156	3.308		
Total	41958.000	160			
Corrected Total	548.775	159			

The analysis indicates a significant difference in lecturers’ perceptions of effectiveness across academic qualifications, with  $F(3,156) = 3.291$  and  $p = 0.022$ , which is less than 0.05.

The corrected model sum of squares was (32.660), while the error sum of squares stood at (516.115). The high intercept value (27204.917,  $p = 0.000$ ) suggests that digital tools are generally perceived as effective, but perceptions vary among qualification levels. Since the significance level (0.022) is below 0.05, the null hypothesis is rejected. This implies that academic qualification significantly influences how lecturers view the effectiveness of digital instructional tools in enhancing English Language teaching.



**Figure 3. Estimated marginal means of effectiveness of digital instructional tools in enhancing English Language teaching across academic qualifications**

The graph shows variations in perceptions of effectiveness among qualifications. Bachelor's degree holders reported the lowest mean (15.80), while lecturers with a Master's degree (16.70) and Professional Diploma in Education (16.90) indicated higher effectiveness. PhD holders recorded a lower mean (15.90). These differences align with the statistical test,  $F(3,156) = 3.291$ ,  $p = 0.022$ , which is below 0.05. This indicates that academic qualification significantly influences perceptions of effectiveness. Hence, the null hypothesis is rejected, confirming that lecturers' qualifications affect their evaluation of digital instructional tools in English Language teaching.

## Discussion

The findings from the three research questions and hypotheses provide a holistic understanding of the extent of utilization, challenges, and perceived effectiveness of digital instructional tools in the teaching of English Language in tertiary institutions. For Research Question 1, the results showed that lecturers frequently utilize digital tools such as video resources ( $M = 3.39$ ), projectors and multimedia slides ( $M = 3.36$ ), and online platforms ( $M = 3.33$ ). Computer-based assessments ( $M = 3.46$ ) were the most widely adopted, while digital dictionaries and grammar applications had the lowest mean ( $M = 3.01$ ). This finding agreed with Wordu et al, (2020), who observed that computer-based assessments promote efficiency in English Language evaluation. In contrast, Adams et al, (2024) found that grammar-based

applications were central to language instruction in Ghanaian universities, suggesting contextual differences in adoption patterns. Similarly, in a related study, Tabowei (2021) noted that Nigerian lecturers prioritize multimedia tools over specialized digital apps due to limited access to premium technologies.

For Research Question 2, lecturers highlighted challenges such as unstable electricity ( $M = 3.53$ ), inadequate access to modern instructional technologies ( $M = 3.25$ ), and poor internet connectivity ( $M = 3.08$ ). This finding is consistent with Adams et al (2024), who identified infrastructural deficiencies as barriers to digital learning in Nigerian tertiary institutions. In contrast, Eli-Chukwu et al, (2023) reported that lecturers in South Africa considered high maintenance costs a bigger challenge than electricity or internet access. Similarly, the present study found high maintenance costs ( $M = 3.30$ ) and insufficient training ( $M = 3.29$ ) to be significant barriers. This aligned with the conclusions of Udu et al, (2021), who emphasized the need for professional development programs to enhance lecturers' capacity to integrate technology effectively.

For Research Question 3, lecturers expressed positive perceptions of the effectiveness of digital instructional tools, with high ratings for making lessons engaging ( $M = 3.22$ ), enhancing lesson delivery ( $M = 3.26$ ), and providing opportunities for practice beyond the classroom ( $M = 3.26$ ). These findings are in line with Nwankwegu (2021), who affirmed that digital platforms enrich interactivity and comprehension in English Language teaching. However, in contrast, Lee and Wallace (2018) argued that traditional methods remained more effective for improving grammar accuracy, even though digital tools improved student engagement. The hypothesis testing revealed mixed outcomes. Hypotheses 1 and 2 showed no significant difference in utilization and challenges across academic qualifications ( $p = .917$  and  $.918$ , respectively). This supports the claim by Ghafar (2023) that infrastructural barriers cut across all qualification levels. However, Hypothesis 3 showed a significant difference in perceptions of effectiveness based on qualification ( $p = .022$ ). This finding corroborates Bakare (2024), who observed that lecturers with advanced qualifications demonstrate a deeper appreciation for the pedagogical value of digital tools compared to those with only basic qualifications.

## CONCLUSION

The study established that digital instructional tools play a significant role in enhancing the teaching of English Language in tertiary institutions. Findings indicated moderate utilization of tools such as projectors, video resources, and online platforms, which contribute to better engagement, comprehension, and lesson delivery. However, lecturers encountered persistent challenges, including unstable electricity, inadequate access to modern technologies, poor internet connectivity, high maintenance costs, and the need for further training. While perceptions of effectiveness varied across academic qualifications, the overall view highlighted digital tools as indispensable in contemporary language teaching. It is therefore concluded that sustained investment in digital infrastructure, provision of reliable internet and electricity, and regular professional development for lecturers are essential to optimize the integration of digital instructional tools. Addressing these challenges will not only improve the quality of English Language teaching but also align tertiary education with global best practices in technology-enhanced learning.

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