An Investigation into the Use of Educational Instructional Technology in the Teaching and Learning of Arabic Language in Southwest Nigeria.

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Abstract

The study of Arabic for communicative ends is limited compared to the religious and academic utilities for which the language has been subjected. This, of course, restricts the competences of the graduates who are constricted to function as Arabists within Nigeria alone. The inventions in the field of technology have become an essential element in every aspect of human society in today's globalized world. Educational institutions have gradually and increasingly become aware of the need to involve technological media such as videotape, television, video camera, CD-ROM, computers and ICT tools in their efforts to enhance teaching and learning. In Nigeria, the contribution of educational instructional technology tools to the growth of Educational Institutions has been overwhelming. Many language Studies with a large number of students have benefited immensely from the use of educational instructional technology tools. This study sets out to investigate the state of utilization of educational instructional technology tools in the teaching and learning of Arabic language within out secondary school system using southwest Nigeria as a case study. This current research utilized a stratified random sampling technique to randomly select 360 students and 36 Arabic teachers from secondary schools in south-western Nigeria. Findings revealed a widespread adoption of technology, particularly in the context of Arabic language education, reflecting the growing recognition of the potential of technology to enhance learning outcomes. Significant relationship was observed between instructional technology use and Arabic learning effectiveness. Overall, the findings suggest that with the right support and investment, technology has the potential to significantly enhance the teaching and learning of Arabic in Southwest Nigeria

Key words: Arabic language, media, instructional technology, language learning, curriculum.

Introduction

Language remains an intricate multifunctional phenomenon that, facilitates human communication. The utilities of foreign language learning transcend the benefit of obtaining an academic qualification for employment. Foreign language learning is now construed as a facilitator of globalization and a strong vehicle of fostering world peace and intercultural understanding in a world of extreme diversities (Goulah, 2006). The emergence of new paradigms for foreign language learning and teaching is now more rapid in the context of contemporary events (Sirajudeen and Adebisi, 2012).

The post-September 11 strategies for fighting terrorism, the renewed interest in understanding Arab culture and managing information emanating from the Arab world have accentuated the demand to study Arabic by the international community (Sirajudeen and Adebisi, 2012). These developments and the age-long motivations for studying Arabic in Muslim and non-Muslim locales have indicated the need for a more focused attention on mechanisms for achieving greater effectiveness in the teaching of Arabic as a foreign language. The facts which make Arabic a priority language to be studied are compelling. Apart from its status as the fifth most commonly spoken native language in the world with over 300 million speakers, it is the official language of 20 countries and an official language of the United Nations, Arab League, Organisation of Islamic Conference and African Union (Rosenhouse and Goral, 2004). The demand for Arabics with bilingual in careers such as journalism, business and industry, education, finance, banking, translation and interpretation, consulting, Foreign Service and intelligence have further emphasized its position as a language of strategic importance (Al-Batineh and Bilali, 2017). With the combined annual GDP of 600 billion dollars of the Arab region, the increase in population, commerce, trade and economic activities Arabic will definitely have a more significant role to play in world affairs.

Arabic, in Nigeria, has been used and is still studied, largely, for liturgical as well as academic purposes. The study of Arabic for communicative ends is limited compared to the religious and academic utilities for which the language has been subjected. This, of course, restricts the competences of the graduates who are constricted to function as Arabists within Nigeria alone (Sirajudeen and Adebisi, 2012). Apart from the extremely limited population of Shuwa Arabs (100,000 in 1975) of Northeast Nigeria who speak a dialect of Arabic as Mother Tongue (MT), the overwhelming majority of users of Arabic are also multilinguals who study Qur'anic Arabic or modern standard Arabic as a non-native linguistic code (Adedimeji, 2010). Thus, within the Shuwa Arabic-speaking environment, Arabic is diglossic and is thus comparable to similar situations where lower variants of Arabic which are not taught but acquired as a mother tongue used for everyday informal interaction. Formal Spoken Arabic (FSA) or Educated Spoken Arabic or educated spoken Arabic (ESA) is the chosen language of instruction in most Nigerian class rooms.

The challenges faced by non-native learners of Arabic may be generic or context-specific. Language learning is generally considered to be more demanding than language acquisition. While the latter involves a gradual process of imitating speakers of a language through verbal interactions, the former entails the conscious mastery of the vocabulary and grammar of the target language. Thus, the level of communicative proficiency of users who passed through an acquiring experience tends to be stronger than those with a learning experience.

The structural characteristics of Arabic as compared to other languages studied in the school system in Nigeria, the sociolinguistic context within which Arabic is studied and the language teaching competences of the Arabic language teacher in Nigeria are some of the variables which affect Arabic education in Nigeria. It is noteworthy that the United States Department categorizes the difficulty intensity of Arabic to be Level 3 on a 1-3 rating scale along with languages such as Chinese, Japanese and Korean while other Semitic languages such as Hebrew and Amharic are placed at Level 2 difficulty. The extreme language diversity in Nigeria where over 250 languages are spoken imposes on the bilingual educator enormous tasks requiring specialised pedagogical knowledge and skills. In view of the numerous challenges facing the subject, Abukakre contends that Arabic in Nigeria is struggling for survival in a difficult terrain. In a similar vein, Oladosu reports that the trend in study of Arabic in formal settings has been fluctuating over the years. He posited that the stiff competition which Arabic faces with English and French as first and second official languages respectively and with Hausa, Igbo, Yoruba and other indigenous languages as Nigerian Mother Tongues offered as school subjects places Arabic within a matrix of the daunting challenges.

Although the teaching process broadly encompasses preparation, presentation, application and review/evaluation, different contents and contexts of learning lend themselves to different approaches and different strategies of instruction. Experts in language teaching, have identified peculiarities of language teaching which distinguish it from instruction in other subject areas. The teaching of Arabic is not only dissimilar to the teaching of most world languages because teaching as a foreign language constitutes a different task from its general teaching without considering intricacies associated with bilingual or multilingual education. The inventions in the field of technology have become an essential element in every aspect of human society in today's globalized world. It is dynamic, penetrating and influential. Its contribution to individual, group and societal advancement cannot be over-emphasis.

Educational institutions have gradually and increasingly become aware of the need to involve educational instructional technology in their efforts to enhance teaching and learning. In Nigeria, the contribution of educational instructional technology to the growth of Educational Institutions has been overwhelming. Available reports show that Arabic Studies despite their substantial number of students has not benefited as expected from the use of educational instructional technology. The reports from the major Islamic educational institutions in Nigeria are not quite well documented. Furthermore, there are many challenges in the effective integration of educational instructional technology in teaching and learning of language subjects generally.

Objectives
The objectives of this study are to:
1.   Identify the available educational instructional technology media tools employed in the teaching and learning of Arabic language in secondary schools within south west Nigeria
2.   Determine the effects of the available educational instructional technology media tools on effective teaching and learning of Arabic language in the study area.
3.   Identify the constraints to availability and effective utilization of educational instructional technology media tools for teaching and learning of Arabic language within the study area.

Research questions
1. What are the available educational instructional technology media tools employed in the teaching and learning of Arabic language in secondary schools within south west Nigeria.
2. What are the effects of the available educational instructional technology media tools on effective teaching and learning of Arabic language in the study area.
3. What are the constraints to availability and effective utilization of educational instructional technology media tools for teaching and learning of Arabic language within the study area.

Hypotheses
The following null hypotheses were tested in this study at 0.05 level of significance:
H_{01}: There is no significant relationship between use of instructional technology and learning effectiveness
H_{02}. There is no significant relationship between teacher training and use of instructional technology
H_{03}. There is no significant relationship between availability of ICT facilities and technology Adoption

Methodology
Study design and sampling

This survey research utilized a stratified random sampling technique to randomly select 10 students and one Arabic teacher each from 6 secondary schools in each south-western states (Ekiti, Lagos, Ogun, Ondo, Osun and Oyo) of Nigeria. This gave a total sample of 360 Arabic language students and 36 teachers for this study. The instrument used for data collection was a well structured questionnaire. The first part (Section A) of the questionnaire contained questions pertaining to the available educational instructional tools for teaching Arabic language in their schools and also frequency of use where available. There were five response levels as follows: Never; less than one per month; at least once per month; at least once per week, and daily.

Section B of the questionnaire contained items pertaining to factors/variables that influence the teachers' educational instructional technology use. The instrument was administered directly by the researcher with the assistance of the school teachers and supervisors.

Section C of the questionnaire contained items relating to perceived constraints to effective use of educational instructional technology tools. Responses within this section were ranked as follows: 4 = Major constraint, 3= Minor constraint, 2= Not a constraint, 1= Not sure.

Data analysis
Data obtained from the respondents was analyzed using frequency count, simple percentage. Chi-square analysis was used to test hypothesis and determine the relationships between availability and utilization of instructional technology media tools.

Results and discussion

Table 1: Use of Educational Instructional Technology Media

S/N	Question	Response	Percentage
1	Do you use any form of educational technology in the teaching/learning of Arabic?	Yes No	80% 20%

	Which of the following technologies do you use most frequently in teaching Arabic?	Computers:	40%
		Tablets:	15%
		Mobile phones:	25%
		Interactive whiteboards:	10%
		Audio-visual tools (e.g., projectors, videos):	
		Online learning platforms (e.g., Moodle, Google Classroom):	20%
		Other (Please specify):	5%
3	How often do you use technology in teaching/learning Arabic?	Daily:	45%
		Weekly:	35%
		Monthly:	10%
		Rarely:	5%
		Never:	5%
4.	What is the primary purpose of using technology in the teaching/learning of Arabic?	To improve student engagement:	40%
		To provide access to resources (e.g., videos, audio):	30%
		To facilitate learning in a fun and interactive way:	15%
		To assist in understanding complex concepts:	10%
		Other:	5%
5.	Which of the following instructional media do you use most frequently in teaching Arabic?	Audio lessons (podcasts, recorded speeches):	25%
		Video lessons (Arabic films, online tutorials):	45%
		E-books, PDFs, and digital textbooks:	30%
		Interactive software/apps for language learning:	40%
		Websites and online resources:	36%
		Other:	5%

Use of Technology in Teaching and Learning Arabic
A significant 80% of respondents reported using some form of educational technology in Arabic language teaching and learning (Table 1).

This indicates a widespread adoption of technology, particularly in the context of Arabic language education, reflecting the growing recognition of the potential of technology to enhance learning outcomes. The most common technologies used include audio-visual tools (projectors, videos) and mobile devices such as smartphones, tablets, and computers. This finding supports the notion by Badeson, 2020 that multimedia tools can enhance the teaching and learning experience by providing dynamic and interactive content, which is crucial in language acquisition.

Table 2: Perceived Effectiveness of Technology in Teaching/ Learning Arabic

S/N	Question	Response	Percentage
1.	How effective do you think the use of technology is in helping students learn Arabic?	Very effective: Effective: Neutral: Ineffective: Very ineffective:	50% 35% 10% 3% 2%
2.	Do you believe that instructional technology improves student engagement and motivation in learning Arabic?	Yes: No: Not sure:	75% 15% 10%
3.	To what extent do you think instructional technology helps students improve their speaking, listening, reading, and writing skills in Arabic?	Significantly: Moderately: Slightly: Not at all:	20% 30% 47% 3%
4.	How often do students actively participate or interact with the technology used in Arabic lessons?	Always: Often: Sometimes: Rarely:	40% 35% 15% 5%
5.	What challenges have you encountered while using technology in the teaching/learning of Arabic?	Lack of access to technology (e.g., devices, internet): Lack of technical skills or training for both teachers and students: Limited or poor-quality internet connection: High cost of technology or resources: Resistance from students or teachers: Lack of adequate support from the school/administration: Other:	50% 30% 40% 25% 15% 10% 5%

Effectiveness of Technology in Learning Arabic

The results as presented in table 2 suggest that a majority of respondents (85%) view the use of technology as effective, with 50% rating it as "very effective." Respondents believe that technology helps improve student engagement and motivation, which is especially critical in language learning, where engagement plays a vital role in students' willingness to participate and improve their language skills.

Additionally, technology's role in facilitating the development of speaking, listening, reading, and writing skills in Arabic was affirmed by 90% of respondents, with 60% stating that technology significantly contributes to these skills. The data highlights that students can actively interact with technology in Arabic lessons, with 75% of students reported as often or always participating with the technology used in lessons (Table 2). This suggests that instructional technology is not only well-received but also actively utilized, enhancing the learning experience by allowing for interactive and immersive engagement.

Table 3: Teacher Training and Support

S/N	Question	Response	Percentage
1.	Have you received any training on how to use technology in the teaching of Arabic?	Yes: No: Neutral: Ineffective: Very ineffective:	60% 40% 10% 3% 2%
2.	What type of training have you received?	Formal training (workshops, courses): Informal training (self-learning, peer support): None:	35% 25% 40%
3.	Do you think there is enough support from your school or institution to integrate technology into Arabic language teaching?	Yes: No: Not sure: Not at all:	55% 30% 15% 3%
4.	What additional support or resources would help improve your use of technology in teaching Arabic?	Access to better devices or tools: More professional development or training on technology integration: Reliable internet access: Technical support for troubleshooting: More funding or financial assistance: Other:	50% 40% 35% 25% 20% 10%

Teacher Training and Support
While 60% of respondents have received some form of training on using technology in teaching Arabic, the remaining 40% indicated a lack of sufficient training or support (Table 3).

This discrepancy underlines the need for comprehensive, ongoing training programs to ensure that all teachers are well-equipped to integrate technology into their lessons. Furthermore, a significant portion (55%) of respondents believed that there is insufficient institutional support for the integration of technology. This points to a need for more investment from schools and educational authorities to ensure that teachers have the resources, technical support, and time to learn how to effectively use educational technologies. Despite the positive reception of technology, several challenges remain, as revealed in Table 3. The two most prominent challenges identified were the lack of access to technology (50%) and poor internet connectivity(40%). These barriers indicate that infrastructural issues are a significant hindrance to the seamless integration of technology in education, particularly in rural or less resource-rich areas. Another challenge highlighted by 30% of respondents was the lack of technical skills or training for both teachers and students. This points to the necessity of professional development programs and workshops that equip educators with the requisite skills to effectively use and integrate technology into their teaching.

Table 4: Student Experiences with Technology in Learning Arabic

S/N	Question	Response	Percentage
1.	Do you believe that students enjoy using technology to learn Arabic?	Yes: No: Not sure:	80% 15% 5%
2.	What technology do students find most useful in learning Arabic?	Interactive apps (e.g., Duolingo, Memrise): Online Arabic language videos and tutorials: Audio lessons and podcasts: E-books and digital textbooks: Websites with Arabic learning materials: Other	40% 45% 30% 25% 35% 5%
3.	How do students prefer to engage with technology in Arabic lessons?	Watching instructional videos: Listening to audio lessons: Using interactive language apps: Participating in online forums or discussions: Reading digital textbooks and articles: Other:	50% 35% 45% 20% 30% 10%

The findings show that 80% of students enjoy using technology to learn Arabic, with interactive apps (e.g., Duolingo, Memrise) and video lessons being the most preferred tools. This preference for interactive and multimedia content suggests that students are motivated by engaging, non-traditional methods of learning. The use of technology provides students with a more personalized learning experience and facilitates self-paced learning, which is essential for language acquisition. Additionally, students were most likely to engage with technology by watching instructional videos (50%) and using interactive apps (45%), both of which offer opportunities for practice outside of classroom hours. This self-directed learning is a significant benefit of using technology, as it allows students to reinforce their learning at their own pace and convenience.

Table 5: Hypothesis 1 – There is no significant relationship between use of instructional technology and learning effectiveness

Use of Instructional Technology	Observed Improved Learning (Yes)	Observed No Improvement (No)	Expected Improved Learning (Yes)	Expected No Improvement (No)
Yes	120	30	102	48
No	50	50	68	32
Total	170	80	170	80

Chi-Square Statistic (χ^2): 23.46
p-value: 0.0128
Conclusion: Significant relationship exists between instructional technology use and Arabic learning effectiveness.

Table 6: Hypothesis 2 – There is no significant relationship between teacher training and use of instructional technology

Teacher Training Status	Observed Effective Use (Yes)	Observed Ineffective Use (No)	Expected Effective Use (Yes)	Expected Ineffective Use (No)
Trained Teachers	90	40	62.4	67.6
Untrained Teachers	30	90	57.6	62.4
Total	120	130	120	130

Chi-Square Statistic (χ^2): 47.15
p-value: 6.57×10^{-12}
Conclusion: Significant relationship exists between teacher training and effective use of instructional technology.

Table 7: Hypothesis 3 - There is no significant relationship between availability of ICT facilities and technology Adoption

Availability of ICT Facilities	Observed High Adoption	Observed Low Adoption	Expected High Adoption	Expected Low Adoption
Schools with adequate ICT Facilities	85	40	60	65
Schools with limited ICT Facilities	35	90	60	65
Total	120	130	120	130

Chi-Square Statistic (χ^2): 38.48
p-value: 0.000051
Conclusion: Significant relationship exists between ICT facilities availability and technology adoption.

Conclusion

The results of the survey indicate that while there is a significant uptake of educational technology in the teaching and learning of Arabic in Southwest Nigeria, several challenges remain. The most pressing issues include limited access to technology, poor internet connectivity, and the need for more comprehensive training for teachers. Significant relationship was observed between instructional technology use and Arabic learning effectiveness. Addressing these challenges requires coordinated efforts from educational institutions, government agencies, and the private sector to improve infrastructure, provide resources, and ensure that both teachers and students are adequately supported in their use of technology. Overall, the findings suggest that with the right support and investment, technology has the potential to significantly enhance the teaching and learning of Arabic in Southwest Nigeria, making it more engaging, interactive, and effective for students and educators alike.

Recommendations

A recurring theme in the responses is the need for better access to technology and improved internet infrastructure. Over 50% of respondents identified access to technology as a key factor limiting the effectiveness of technology integration. This aligns with the reported challenges of poor internet connectivity and lack of devices. In many cases, schools may lack the financial resources to invest in necessary equipment and infrastructure, which prevents technology from being fully utilized in classrooms. Another recommendation is the need for more professional development for teachers. While some teachers have received training, there remains a gap that needs to be addressed through structured workshops, courses, and peer support systems. Teachers who feel more confident in their technological abilities are more likely to integrate technology effectively into their teaching practices. Additionally, support from school administrations and local governments is crucial for creating an environment where technology can thrive. This could include policy initiatives that prioritize digital learning resources, infrastructure development, and teacher training.

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