



Information and Communication Technology as a Tool for Arabic Language Learning in
Madaris, Lagos State

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Abstract

The traditional approaches to teaching Arabic in Madaris (Arabic and Islamic schools) across Lagos State are constrained by fundamental challenges, including limited exposure to native speakers, a paucity of diverse learning materials, and an over-reliance on rote memorisation. These deficiencies severely impact students' communicative competence and functional language proficiency, necessitating the adoption of cutting-edge, engaging teaching resources. This paper argues that Information and Communication Technology (ICT) is a potent, essential, and successful instrument for dramatically improving Arabic language learning outcomes within Lagos State Madaris. ICT facilitates the creation of a rich, multimedia learning environment by providing access to authentic resources (videos, podcasts, online dictionaries), encouraging interactive and collaborative practice through language applications and virtual exchange, and enabling customised learning paths tailored to individual student needs and paces. The argument is developed using both a conceptual and research-based strategy. It critically evaluates the unique pedagogical issues inherent in the traditional Madaris system, draws upon the established body of research on digital language acquisition, and suggests a practical framework for integrating widely available, open-source ICT resources. Ultimately, this paper demonstrates how incorporating ICT transforms Arabic instruction from a passive, text-based process into a dynamic, interesting, and communicative one. It is strongly advised that Lagos State's educational stakeholders fund digital literacy-focused Arabic teacher training and provide the necessary infrastructure to fully realise ICT's promise for enhancing Arabic language education.

Keywords: Arabic Language Learning, ICT, Digital Literacy, Madaris



Introduction

The situation of Arabic language education in *Madaris* (Arabic and Islamic schools) across Lagos State has historically been defined by traditional pedagogical practices. Before the widespread adoption of Information and Communication Technology (ICT), Arabic education relied heavily on rote memorisation (*Hifs*), blackboard teaching, and physical texts, such as the Qur'an and canonical religious literature. The curriculum was rigorous and often prioritised grammar (*Nahw*) and morphology (*Sarf*) at the expense of functional communication skills. Rooted in pre-modern educational systems, this method frequently results in graduates with limited practical proficiency, hindering their ability to engage with contemporary Arabic media, academic research, and the global *Ummah* (community), (Afridi, 2016). This challenge is exacerbated by a scarcity of qualified instructors skilled in modern language teaching techniques, outdated curricula lacking authentic, real-world content, and a pervasive deficit of varied resources essential for sustained student motivation. Consequently, a growing disconnect exists between the *Madaris'* academic objectives and the 21st-century language needs of their students. The teaching environment was largely teacher-centric, staffed by instructors often possessing deep textual knowledge but potentially lacking modern pedagogical skills due to unstructured or insufficient training. Furthermore, many *Madaris* operated with an informal, unstructured organisational framework, often lacking external mechanisms for student assessment and quality control, contributing to inconsistent learning outcomes across the state (Aleru, 2023). In this pre-ICT era, interactions between teachers and students were predominantly one-way. Students were passive consumers of knowledge, with limited opportunities for interactive practice, rapid feedback, or exposure to the range of native-speaker dialects and contemporary language usage. The learning environment was confined primarily to the classroom, restricting students' access to Arabic outside scheduled lessons. Given that foundational materials were often outdated, a significant gap emerged between the Arabic taught in the *Madaris* and the functional Arabic necessary for international communication, business, or modern academic study. These structural and pedagogical limitations severely impeded the achievement of high levels of Arabic communicative competence, particularly in the productive skills of speaking and listening. The formal establishment of Madaris in Lagos dates back to the late 19th and early 20th centuries. To address colonial secularism, a significant shift toward the Nizamiyyah (modernised) system occurred in the 1950s. The battle for ICT integration started as a grassroots endeavor in the late 1990s as academics attempted to reconcile technology advancement with theology (Ugboh, 2023). In Lagos State's Madaris, the emergence of the ICT era presents a transformative potential to address these ingrained challenges in Arabic language education. The introduction of tools like mobile applications, interactive whiteboards, educational software, and the internet.

The emergence of the ICT era offers a transformative potential to address these ingrained challenges in Arabic language education within Lagos State's *Madaris*. The introduction of tools such as the internet, educational software, interactive whiteboards, and mobile applications. Raikhel, (2025) in general language learning contexts provides opportunities for a critical shift from a teacher-centered to a learner-centered, interactive, and personalised approach. This technology facilitates access to rich, authentic, and multimedia Arabic content, including online dictionaries, video lectures, and real-time communication with native



speakers, thereby effectively globalising the *Madaris* classrooms. Consequently, the curriculum can be substantially enriched to include contemporary Arabic, improving not only reading and writing, but critically, the four essential language skills: Reading, Writing, Listening, and Speaking.

Addressing this educational deficiency is essential at both the local and global levels. Lagos State, as Nigeria's economic and cultural centre, hosts a substantial Muslim population. Its educational institutions must, therefore, produce graduates capable of navigating contemporary society. Enhanced Arabic fluency is necessary for understanding primary religious texts, participating in Islamic finance, and accessing specialised academic and economic opportunities. Globally, Arabic is an official United Nations language, critical for diplomacy, business, and research, particularly across the Middle East and North Africa. Thus, enhancing Arabic education in *Madaris* equips Nigerian students to be more interculturally competent and prepared to contribute successfully to the global Islamic and Arab economy. Furthermore, successful technology integration here provides a replicable paradigm for educational reform in traditional school systems throughout West Africa and beyond. During President Goodluck Jonathan's administration (2010–2015), this evolution reached an explosive turning point. At this time, the national discourse on integrating Western education and ICT within traditional Islamic frameworks was sparked by the call to develop Almajiri schools in the north. The government spent billions to close the gap between digital literacy and religious devotion, which led Lagos *Madaris* to adopt comparable e-learning models (Tor, et. al., 2025). Among the achievements to date are the creation of digital laboratories at notable *Madaris* and the state authorities' accreditation of integrated curricula. For this digital shift, *Madaris* administration and Arabic teacher preparation must be reevaluated. This digital transition necessitates a reassessment of *Madaris* administration and Arabic teacher preparation. Instructors require professional development to effectively integrate digital tools into their practice, shifting their role from content dispensers to learning facilitators. Prior studies on technology-enhanced language learning confirm that ICT improves students' motivation and performance in Arabic (Alghamdi, 2024). Therefore, achieving the full promise of this integration requires a thorough assessment of the current state of ICT implementation in *Madaris*, including infrastructure access, Arabic teacher competency, and institutional support.

Aims and Objectives

The primary purpose of this paper is, therefore, to argue that the most practical and successful way to modernise Arabic language education in Lagos State *Madaris* is through the thorough and strategic integration of ICT.

This article advocates for the strategic integration of Information and Communication Technology (ICT) within Lagos State *Madaris* to enhance Arabic language learning outcomes and provides a framework for its effective implementation.



Furthermore, this paper aims to analyse the pedagogical inadequacies of conventional approaches and demonstrate how ICT tools can close the learning gap by offering rich, authentic multimedia content, enabling individualised instruction, and fostering a communicative-based learning environment.

Research Questions

To what extent can the strategic integration of Information and Communication Technology (ICT) modernise Arabic language education and improve learning outcomes in Lagos State Madaris?

How can the strategic integration of Information and Communication Technology (ICT) be implemented to enhance Arabic language learning outcomes in Lagos State Madaris?"

How can the integration of ICT tools address the pedagogical inadequacies of conventional approaches to close the Arabic language learning gap in Lagos State Madaris?

The central problem addressed is the significant gap between the intended communicative competence in Arabic and the actual proficiency levels attained by students in Lagos State *Madaris*. This gap stems from the system's persistent reliance on outdated, non-interactive, and resource-scarce pedagogical practices. This inadequacy in equipping students with practical language skills for religious scholarship, economic opportunity, and global engagement diminishes the societal relevance and potential of these institutions. The consequences of inaction include the continuation of a high rate of dropouts and the failure to produce graduates who are functionally proficient in the international Arabic-speaking community and economy.

Theoretical Framework

The argument for integrating ICT into Arabic language education in *Madaris* is strongly supported by Connectivism, a learning theory developed by George Siemens and Stephen Downes (2005) (Hendricks, 2019). Connectivism posits that learning is the process of forming connections between specialised information nodes or resources, asserting that knowledge resides in networks and is distributed across links. Core concepts include connections (the links between nodes), nodes (linkable entities such as students, teachers, online resources, and applications), and network construction (the practical learning process itself) (Kiv, et al., 2022). Prior studies indicate that traditional learning models struggle to keep pace with the exponential speed at which knowledge is created and shared in the digital age. Connectivism fills this critical gap by emphasising essential 21st-century skills such as digital literacy and the capacity to navigate complex information environments. This theory is highly pertinent to the paper's argument because it directly supports the necessary transition: moving from a teacher as knowledge-source model to an ICT-mediated environment. In this new setting, students actively construct knowledge by connecting to authentic Arabic media, native speakers via digital platforms, and collaborative online tools, thereby transforming them into active network participants rather than passive recipients. The central tenet that Connectivism raises is that conventional theories of learning, such as Behaviourism and Cognitivism, are insufficient to explain learning that is distributed, takes place outside of formal structures, and is mediated by technology (ŞahİN, & Tebeanu, 2024).



Therefore, this theoretical approach integrates existing scholarship on digital learning to highlight the structural limitations of the current *Madaris* system and clearly establishes the theoretical gap supporting this paper's position. Specifically, Connectivism justifies the strategic use of ICT by demonstrating how the four essential language skills are enhanced through networking. Listening is improved through connections to real-time audio nodes, speaking is facilitated through communication links with native or proficient partners, reading is broadened by linking to vast digital text repositories and Writing is developed through collaborative online platforms. This mandates a framework that recognises and capitalises on the distributed, networked, and technologically enhanced nature of modern language acquisition.

Conceptual Review

Traditional Arabic Learning Model in Madaris

The pre-modern Islamic academic tradition, which is characterised by a systematic, teacher-centric approach and an overriding stress on textual integrity and memorisation, is the primary foundation of the prevalent traditional Arabic learning approach inside the Madaris system. The traditional linguistic sciences, especially Nahw (syntax) and Sarf (morphology), are taught primarily through the strict memorisation of canonical texts (*Matn*) and their commentaries (*Sharh*) (Nodira, 2025). The programme promotes passive knowledge reception and grammatical analysis over active communication competence to produce scholars who can comprehend the Qur'an, Hadith, and early Islamic law. The methodology employed includes the teacher reciting and explaining texts, with students diligently transcribing and committing the material to memory (*Hifs*). Consequently, the learning experience is often passive, monotonous, and lacks exposure to the variations, idioms, and practical vocabulary of contemporary spoken Arabic. This approach creates a significant skills gap, where graduates may possess strong grammatical knowledge but struggle immensely with basic listening comprehension, conversational fluency, and the functional use of the language in modern contexts.

When compared to contemporary language training, this old model's near-complete reliance on limited and antiquated physical resources creates essentially resource-poor learning environment. The cycle of rote learning is further maintained by teachers who are frequently unexposed to modern language teaching, such as the Communicative Language Teaching (CLT) approach, because they were taught exclusively within this same strict framework. Additionally, students are rarely exposed to native speech patterns, pronunciation variants, or cultural settings outside of the textual domain due to the limited availability of authentic, real-world Arabic audio and visual materials. This restricts their capacity for natural language processing. Strict and dictatorial classroom arrangements and general management impede student-initiated inquiry, peer interaction, and teamwork all essential components of modern language mastery (Atkinson-Ward, 2023). The traditional Madaris framework's lack of interactive tools and varied resources emphasises how urgently a transformative intervention like ICT is needed to provide Arabic instruction vitality, authenticity, and a communicative focus.

Integration of ICT for Language Acquisition



Information and communication technology (ICT) integration is a transformative force that directly addresses the shortcomings of the traditional Madaris approach by improving the four fundamental language skills: speaking (*Kalam*), writing (*Kitabah*), listening (*Istima'u*), and reading (*Qira'ah*). ICT provides students with authentic multimedia resources for speaking and listening, including podcasts, cultural films, and Arabic news-focused YouTube channels (Peng, Peng, & 2017). This gives Arabic students access to a range of indigenous dialects and accents that are often ignored in traditional education settings. Furthermore, tools like mobile applications (e.g., language-learning apps) and virtual communication platforms (e.g., WhatsApp, TikTok, Facebook, Instagram, Zoom) offer crucial opportunities for interactive and real-time communication practice with peers or even native speakers, fostering a safe environment for active language output and reducing the anxiety associated with speaking in a large, formal classroom setting. This accessibility to authentic and interactive practice is instrumental in moving beyond rote memorisation to achieve genuine communicative fluency.

ICT integration significantly expands and improves the reading and writing resources available to students, promoting a customised and independent learning process (Eden, et.al., 2024). In comparison to the few, outdated physical literature found in many Madaris, digital resources offer access to an unlimited digital library of contemporary Arabic writings, e-books, online dictionaries, and encyclopedias. Word processing software and specialised Arabic keyboards make it easier to enter, edit, and correct text when writing, and learning management systems (LMS) and specialised e-learning platforms enable teachers to give prompt, individualised feedback on written assignments a challenge in large, traditional classrooms. Moreover, ICT supports blended learning approaches, allowing students to proceed at their own pace, revisit complex grammar lessons via engaging videos, and engage with content that matches their specific proficiency level. By making learning more flexible, engaging, and resource-rich, ICT effectively accelerates language acquisition, validates the principles of Connectivism, and prepares Arabic students for the demands of the digital, globalised world.

Information and communication technology (ICT) is not just an auxiliary tool but rather a transformative requirement for attaining communicative competence in Arabic within Lagos State Madaris, as evidenced by its proven ability to provide real resources and interactive practice unachievable through traditional methods. This perspective is clear, strongly proclaimed, and disputed in opposition to the usual knowledge present in many traditional religious schools known as Madaris (Khan, & Ajmal, 2022). Rote memorisation and textual analysis have proven to be essentially inadequate for the development of the four essential language skills (listening, speaking, reading, and writing) necessary for modern engagement, even though they are helpful for Arabic and religious studies. This study outlines a method for modernising Arabic education to meet modern linguistic demands and challenges the status quo by promoting the systemic integration of digital resources. The following arguments will show how ICT fills in the theoretical and practical gaps present in the traditional Madaris framework.

ICT Provides Access to Authentic, Diverse, and Unattainable Linguistic Input

The lack of exposure to native speakers and modern Arabic media significantly restricts the traditional Madaris approach. ICT immediately addresses this by offering unrestricted access to real language input, which is essential for language learning (Zhao, & Lai, 2023). For



example, websites like YouTube provide a variety of information, such as instructional lectures, cultural video tutorials, and Arabic news from Al-Jazeera. In a manner that static textbooks cannot, the ear and mind are constantly trained by exposure to native accents, dialects, and everyday terminology. This is supported by connectivism, which contends that learning happens through making connections to these dispersed, rich information nodes. This digital input is the only practical way for students to assimilate modern usage in Nigeria, where there is limited geographic access to native Arabic speakers.

ICT Fosters Interactive and Communicative Language Practice

Speaking practice in the traditional classroom is frequently restricted to teacher-led recitations, which weakens Arabic students' self-assurance and genuine output. The most important aspect of contemporary language instruction is authentic, interactive communicative practice, which is made possible by ICT (Yusupalieva, 2024). Voice notes can be utilised for casual chat, platforms like Zoom or Skype can be used for formal language engagement with peers or tutors, and WhatsApp groups can be used for rapid-fire dictation practice. The Arabic student is empowered by this change, becoming an active participant in the language process rather than a passive recipient. Research from mobile-assisted language learning (MALL) demonstrates that students' engagement and willingness to practice speaking and writing (skills essential to overcoming the shyness frequently seen in Arabic students) are greatly increased by the instant feedback and low-stakes environment of mobile apps.

ICT Enables Personalised and Self-Paced Learning Paths

The classic Madaris system's strict, whole-class pacing disregards the unique learning demands and speeds of each student. ICT makes it possible to tailor instruction to the various skill levels present in any classroom. Different activities based on student proficiency can be assigned using Language Learning Management Systems (LMS), including advanced work for quick learners and remedial practice for difficult learners (Tumskiy, 2019). Additionally, self-paced review methods, such as watching difficult grammar videos again or utilising pronunciation software frequently, guarantee that students can grasp the material before moving on. This strategy is consistent with theories of cognitive learning, which emphasise the significance of sufficient processing time for the transmission of knowledge. Personalisation guarantees educational equity and maximises learning outcomes for everyone in Lagos Madaris, where Arabic students arrive with a variety of baseline knowledge.

Critics point to a number of technical and cultural challenges associated with ICT integration, including the expensive expense of infrastructure, the digital literacy gap among older professors, and the possible distraction from fundamental religious subjects. They argue that paying teachers or printing more textbooks would be a better use of the funds. Although the cost and training issues are real, they only specify the implementation approach and do not render the position wrong. This opposing viewpoint's criticism is that it ignores the long-term, exponential return on investment (ROI) provided by ICT. Compared to continuously buying and updating traditional textbooks for hundreds of students, the cost of a few tablets or laptops running free, open-source materials like Google Classroom or publicly accessible Arabic educational films quickly drops. Additionally, through focused, required training programmes, older teachers' lack of digital literacy can be methodically addressed, turning them from lecturers to facilitators. Importantly, it is incorrect to see ICT as a diversion because, when used



effectively, it strengthens rather than diminishes the primary religious purpose by giving students the technically advanced language skills necessary to access and evaluate a greater variety of Islamic scholarship in the digital era.

Empirical Review

The traditional operational framework of Madaris in Lagos State is characterised by a closed-circuit pedagogical system, where knowledge transmission is linear and geographically confined. As illustrated in the pre-ICT era, the instructional process is heavily teacher-centric, relying on the Grammar-Translation Method and rote memorisation (*Hifs*). In this setting, the Arabic teacher serves as the sole authoritative node of information, utilising static physical texts and blackboards to focus on the structural intricacies of *Nahw* (syntax) and *Sarf* (morphology). This model creates a significant barrier to communicative fluency, as the lack of authentic audio-visual input and interactive opportunities restricts the student to a passive role. Consequently, the output of this traditional operation is often a literary scholar who understands the mechanics of classical texts but remains linguistically isolated from contemporary, functional Arabic communication.

In contrast, the ICT-supported model functions as an open-network system, significantly realigning Madaris operations with Connectivism concepts. By integrating digital resources such as interactive software, mobile applications, and real-time communication platforms, the classroom transforms into an international learning hub. This approach facilitates a shift from teacher-centered lecturing to learner-centered facilitation by letting students engage with a range of linguistic resources, such as native-speaker podcasts, YouTube lectures, and collaborative online forums. The empirical contrast is seen in the diverse exposure to the four basic language skills: speaking, writing, listening, and reading. While the traditional model limits students to the classroom's physical walls, the ICT-supported framework enables self-paced, individualised learning paths that bridge the gap between academic theory and global communicative competence. This transition results in a more empowered graduate, capable of navigating the 21st-century global Islamic economy and international diplomacy.

Discussion

A positive interpretation of the paper's findings is provided by the arguments in favour of ICT integration, which include the provision of authentic linguistic input, the promotion of interactive communicative practice, and the facilitation of personalised learning. This interpretation holds that the structural and methodological rigidity inherited from pre-digital pedagogy, rather than a lack of effort, is the fundamental limitation in Madaris Arabic education. The research presents a clear way to get beyond the old model's communicative constraints and resource scarcity by utilising ICT. By particularly applying the well-established concepts of Connectivism and Communicative Language Teaching (CLT) to the culturally unique and frequently isolated context of the Lagos State Madaris system, the paper's perspective improves existing scholarship. This integration creates a practical framework that redefines the Arabic teacher's role from a sole source of religious textual authority to a digital-age facilitator who connects learners to a global network of linguistic and cultural resources. Therefore, the paper goes beyond merely promoting the use of technology to offer a conceptual justification for a pedagogical transformation that is necessary for Madaris education to remain relevant in the 21st century.



There are significant wider educational, social, and policy ramifications to the effective integration of ICT into Madaris Arabic instruction. In terms of education, it acts as a test model for updating Arabic and religious education throughout Nigeria and West Africa, demonstrating that adhering to tradition need not be incompatible with using contemporary teaching methods. Socially, Madaris graduates' socioeconomic prospects are improved by increasing their communicative Arabic ability, which opens up more opportunities for international scholarships, trade, and diplomacy within the global Arabic-speaking Ummah. In terms of policy, this perspective necessitates that the Lagos State government and important Islamic educational organisations work together to prioritise investments in digital infrastructure and required, subsidised Arabic teacher training in digital literacy and Computer-Assisted Language Learning (CALL) techniques. On the other hand, inaction keeps educational inequality alive and confines Madaris graduates to a linguistic isolation that prevents them from fully engaging in modern society. As a result, the paper's conclusions highlight that strategic ICT integration is not just an institutional enhancement but also an essential step toward developing a Muslim population in Lagos State that is more linguistically proficient, globally connected, and economically empowered.

Recommendations

1. The Lagos State Government must acknowledge and assist all registered Madaris in the state and set aside particular budget lines to give Madaris dependable internet connectivity and basic computers (laptops and tablets).
2. Policymakers should create a policy mandating digital literacy training in all Madaris approved by the Lagos State Government and Arabic teacher certification programmes.
3. Lagos State's educational stakeholders should fund digital literacy, focus on Arabic teachers' training and provide the infrastructure required to fully realise ICT's promise for enhancing Arabic language education.
4. Arabic educators and administrators must regularly host compulsory training sessions using computer-assisted language learning (CALL) tools and techniques. Change the emphasis of the curriculum from pure grammar (Nahw) to Communicative Language Teaching (CLT), aggressively incorporating real-world digital resources (language apps, YouTube) into everyday instruction.
5. To assist Arabic teachers, Mudir (headmasters) and Arabic administrators must establish specialised Tech-Integration Teams. Redirect funds that are currently being spent on out-of-date physical textbooks to the purchase of shared digital devices and educational platform subscriptions. Create a digital learning area or mini computer lab in the Madaris
6. Children should be actively encouraged by parents and the Muslim community to use digital resources for Arabic practice at home, such as Duolingo or Arabic podcasts. Create Parent-Teacher Associations (PTAs) to advocate for financing for ICT infrastructure from the local government and school administration.
7. Arabic Students can actively manage their language learning by utilising digital resources outside of regular lesson time and practice online contact with Arabic students or Arabic language partners to enhance the 4 language skills (Reading, Writing, Speaking and Listening skills).



8. To provide empirical input for policy improvement, researchers can conduct long-term studies to assess the effects of ICT tools (such as mobile applications versus video conferencing) on the four fundamental language skills of Madaris students in Lagos State.

Conclusion

In conclusion, this paper has firmly shown that the modernisation of Arabic language instruction in Lagos State's Madaris requires the integration of Information and Communication Technology (ICT). The main points made show that ICT effectively addresses the fundamental systemic limitations of the traditional model, it actively promotes interactive and communicative practice, which is essential for fluency; it overcomes the lack of authentic linguistic input by offering a variety of multimedia resources and permits individualised, self-paced learning that is suited to each Arabic student's needs. The paper demonstrated that connecting Arabic students to extensive digital networks of knowledge and practice (a capability completely lacking in the Arabic teacher-centric, text-bound traditional classroom) is the secret to effective Arabic education in the future by utilising connectivism's concepts. As a result, the paper's perspective is clearly clarified that ICT is the most practical and efficient way to close the large gap between Arabic students' intended and actual communicative skills in Arabic.

The importance of this issue cannot be overstated, as the failure to modernise Arabic instruction risks marginalising a generation of Madaris graduates, limiting their global engagement and economic opportunities within the wider *Ummah*. By advocating for the systemic adoption of ICT, this paper not only provides a solution to a local pedagogical crisis but also offers a model for educational reform applicable to traditional religious schooling systems worldwide. Future implications are significant because if ICT integration is effective, Lagos State would produce an entourage of Arabic speakers who are more culturally knowledgeable, linguistically competent, and globally competitive. This paper makes a strong case for the alternative, encouraging stakeholders to embrace ICT as the catalyst for a more efficient and appropriate Arabic education. In the end, the decision is not between tradition and technology, but rather between slowing down and required modernisation.

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