

A Comprehensive Needs Analysis for the Design of a Digital Arabic Communication Module (DIBAK) for Secondary School Learners

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ABSTRACT

This study aims to examine the developmental needs of a Digital Arabic Communication Module (DiBAK) for secondary school students through a qualitative needs analysis approach. Data were collected from ten respondents, comprising five students and five Arabic language teachers, using semi-structured interviews, and subsequently analyzed through thematic analysis. The study focuses on three key aspects: current teaching practices, challenges in implementation, and the specific requirements for an effective Arabic communication module. The findings reveal that existing teaching practices remain largely dependent on textbooks and theoretical approaches, despite ongoing efforts by teachers to promote oral interaction. Several critical challenges were identified, including students' limited vocabulary, low oral comprehension, lack of self-confidence, and anxiety over making grammatical errors. Additionally, systemic factors such as syllabus completion pressure, examination-oriented learning, and insufficient communicative stimulus materials further hinder effective language acquisition. In response, the study highlights the urgent need for a specialized digital module that integrates multimedia elements, AI-enhanced and interactive features, cognitive level-based instructional design, gamification strategies, and continuous formative assessment. This research addresses a significant gap in the literature concerning the limited integration of adaptive digital learning in Arabic communication pedagogy. The findings underscore the importance of developing the DiBAK Module as an innovative and holistic solution to enhance students' communicative competence and foster more effective language learning experiences.

Keywords: Needs analysis, DiBAK Module, Arabic communication, digital learning, secondary school students

INTRODUCTION

In the era of the Fourth Industrial Revolution and 21st-century education, mastery of foreign languages—particularly Arabic—has evolved into a strategic asset that extends beyond its traditional religious function. In the Malaysian context, Arabic is increasingly recognized as a global language with significant relevance in economic development, international diplomacy, and the tourism industry (Fudzla Suraiyya Abdul Raup, Siti Nur Fatimah Md Aminullah & Nik Nur Hidayah Bahari, 2025). In line with this transformation, the Ministry of Education Malaysia has introduced the Secondary School Standard Curriculum (KSSM), reflecting a national commitment to producing linguistically competent and globally competitive graduates. Nevertheless, a critical challenge persists in transitioning from traditional, memorization-based pedagogies to approaches that emphasize practical communication skills, which are essential for meaningful participation in a dynamic global ecosystem.

Despite ongoing curricular reforms, the effectiveness of Arabic teaching and learning (T&L) at the secondary school level remains constrained by several complex and interrelated issues. Empirical evidence highlights a persistent disparity between students' performance in written examinations and their actual communicative competence. Khadijah Kamaruddin, Marina Abu Bakar and Nurul Izzatie Aziz (2025) report that students frequently encounter limitations in vocabulary acquisition and lack effective learning strategies, which subsequently contribute to heightened levels of language anxiety. These challenges are further exacerbated by predominantly textbook-centered and examination-oriented instructional practices, where disproportionate emphasis is placed on grammatical mastery rather than productive language skills such as speaking.

Consequently, students often experience diminished motivation and struggle to perceive the relevance of Arabic as a functional medium of daily communication.

In addition to student-related factors, teacher-related variables play a pivotal role in shaping the effectiveness of language instruction. Fudzla Suraiyya Abdul Raup et al. (2025) emphasize that pedagogical competence, coupled with teacher personality, significantly influences students' engagement and interest in language learning. However, educators who rely heavily on conventional teaching approaches, without integrating digital innovations, face increasing difficulty in capturing the attention of Generation Z learners, who are inherently digital natives. This situation necessitates a paradigm shift in instructional material design, positioning digital technology as a central medium for bridging the communicative gap. The failure to meaningfully integrate technology not only reduces instructional dynamism but also limits students' exposure to authentic, interactive, and context-rich language input.

From the perspective of educational technology, digital platforms offer transformative potential in creating flexible, adaptive and learner-centered environments for language acquisition. The effectiveness of Arabic language instruction is closely tied to the extent to which technological tools are leveraged to meet learners' linguistic and cognitive needs. Azlan Shaiful Baharum et al. (2023) assert that the development of interactive learning platforms is no longer optional but an urgent necessity to sustain relevance in contemporary educational settings. The integration of multimedia elements—such as audio-visual resources, simulations and gamification can foster immersive learning experiences, enabling students to practice communicative skills in real-time while reducing the cognitive burden associated with rigid grammatical instruction.

Recent scholarly trends further reinforce the need for systematic and research-driven digital module development. Efforts to align instructional materials with frameworks such as the Common European Framework of Reference for Languages have gained increasing attention in standardizing language proficiency benchmarks (Fudzla Suraiyya Abdul Raup et al., 2025). However, existing digital modules remain largely generic and lack a focused emphasis on needs analysis specific to Arabic communication skills within the Malaysian secondary school context. Mohamad Rofian Ismail et al. (2024) highlight the importance of incorporating diverse digital resources to stimulate active student engagement. Nonetheless, a significant research gap persists, particularly in the development of digital modules that are explicitly designed to address oral communication challenges through comprehensive and context-sensitive needs analysis.

In response to these gaps, the development of the Digital Arabic Communication Module (DiBAK) is proposed as a proactive and innovative intervention. The DiBAK module is conceptualized as a contextually responsive solution aimed at addressing students' communicative deficiencies by integrating locally relevant content, curriculum alignment, and technology-enhanced learning strategies. Its development is grounded in the need to provide an interactive and self-directed learning tool capable of enhancing students' confidence and communicative competence. By systematically incorporating insights derived from both teachers and students, the DiBAK module is expected to function as a pedagogical bridge that connects theoretical linguistic knowledge with practical oral communication skills, thereby contributing to the overall improvement of Arabic language education in Malaysia.

Based on the identified issues and research gaps, this study aims to inform the development of a more effective and responsive instructional module. Specifically, the objectives of this study are to:

- (1) identify the level of need among secondary school students for digital modules in enhancing Arabic communication skills;
- (2) analyze the key challenges faced by students and teachers in the digital teaching and learning of Arabic communication; and
- (3) determine the most effective multimedia elements and content design to be integrated into the Digital Arabic Communication Module (DiBAK) from the perspective of end users.

LITERATURE REVIEW

The development of the Digital Arabic Communication Module (DiBAK) necessitates a critical engagement with the evolution of language pedagogy, which has progressively shifted from the mastery of grammatical structures toward the attainment of communicative competence. Within the context of 21st-century education, Arabic is no longer confined to its traditional theological function but is increasingly positioned as a strategic language for global economic engagement and international diplomacy (Muhammad Shukri Abdul Khadijah Kamaruddin, Marina Abu Bakar, & Nurul Izzatie Aziz, 2025; Zarima Mohd Zakaria & Muhammad Faris Suhaimi, 2024). Despite this paradigm shift, a significant paradox persists within the Malaysian educational landscape. While the Secondary School Standard Curriculum (KSSM) emphasizes communicative outcomes, its classroom implementation remains largely anchored in traditional, form-focused approaches. Mohamad Rofian Ismail et al. (2024) argue that this disconnect stems from a limited pedagogical interpretation of communicative competence, where language instruction is frequently detached from authentic contexts of use. This observation is further supported by Fudzla Suraiyya Abdul Raup et al. (2025), who contend that insufficient exposure to authentic language input perpetuates passive learning, resulting in students who excel in written assessments but struggle with real-time oral communication.

The challenges associated with the teaching and learning of communicative Arabic in Malaysia have been extensively documented, yet proposed solutions remain fragmented and insufficiently integrated. Empirical studies consistently identify vocabulary deficiency as a primary barrier to oral fluency (Khadijah Kamaruddin, Marina Abu Bakar, & Nurul Izzatie Aziz, 2025; Mohamad Rofian Ismail et al., 2024). This issue is compounded by the continued reliance on static and textbook-centered instructional materials, which limit opportunities for dynamic and meaningful communicative practice. In contrast to disciplines such as science that have successfully incorporated virtual and simulation-based learning environments, Arabic language instruction remains heavily examination-oriented, contributing to heightened levels of language anxiety among students (Zawawi Ismail et al., 2023). Although some scholars advocate repetitive drilling as a remedial strategy, Amirul Mukminin Mohamad and Zamri Mahamod (2019) critically argue that such approaches fail to foster intrinsic confidence and instead reinforce short-term memorization, which is ineffective in spontaneous communicative contexts.

In recent years, digital technology has emerged as a transformative catalyst capable of bridging the gap between theoretical knowledge and practical language use. Interactive digital platforms enable the simulation of real-life communicative scenarios, thereby overcoming the spatial and temporal limitations of conventional classrooms (Muhammad & Hamzah, 2023). Furthermore, the integration of gamification and adaptive learning mechanisms has demonstrated significant potential in enhancing student motivation and engagement, particularly through the provision of immediate and personalized feedback (Nur Adillah Ramly et al., 2024). However, the integration of technology in existing Arabic language learning applications has not been without criticism. Masnun et al. (2025) highlight that many digital tools merely replicate textbook content in digital form without reconfiguring underlying pedagogical strategies. Such approaches fail to meet the expectations of Generation Z learners, as they lack adaptive features capable of accommodating diverse proficiency levels. Consequently, lower-performing students may feel marginalized, while more advanced learners experience disengagement due to insufficient cognitive challenge.

A review of recent studies on Arabic language module development reveals an increasing trend toward digitalization, albeit with notable limitations. For instance, CEFR-aligned modules developed by Fudzla Suraiyya Abdul Raup et al. (2025) offer a structured framework for proficiency benchmarking; however, they tend to prioritize level standardization over the development of context-specific communicative strategies. Similarly, Muhammad Shukri Abdul Halim (2024) identifies a lack of authentic audio-visual input in existing digital modules, which restricts the development of students' listening and speaking skills. A recurring limitation across these studies is the insufficient integration of comprehensive needs analysis prior to the design phase. This stands in contrast to the findings of Nur Adillah Ramly et al. (2024), who emphasize that the effectiveness of instructional materials is fundamentally determined by their alignment with the psycholinguistic and contextual needs of learners.

The importance of conducting an in-depth needs analysis is increasingly recognized as a critical yet underutilized component in educational innovation. Fudzla Suraiyya Abdul Raup (2025) asserts that needs analysis extends beyond identifying knowledge gaps, encompassing a holistic evaluation of the learning environment, technological readiness, and teacher digital literacy. Supporting this view, Khalissafri Mohd Haslin and Mohd Isa Hamzah (2023) demonstrate that instructional materials developed without stakeholder input—particularly from teachers and students—often encounter significant implementation challenges. Although needs analysis has been widely applied in the context of Language for Specific Purposes (LSP), research focusing on the everyday communicative needs of secondary school students within the KSSM framework remains scarce. Syntheses from studies such as Baharuddin and Ghazali (2023) further suggest that the incorporation of preferred multimedia elements is essential to ensure sustained student engagement and module usability.

Critically, the most significant research gap lies in the absence of a comprehensive digital module that integrates communicative pedagogy, adaptive learning technologies, and locally relevant content aligned with the Malaysian secondary school curriculum. Existing digital applications are predominantly global in orientation and often fail to address culturally contextualized communication scenarios relevant to Malaysian learners. Additionally, a methodological imbalance is evident, as prior studies have predominantly employed quantitative approaches to evaluate effectiveness, while neglecting in-depth qualitative inquiry into the underlying mechanisms shaping learners' needs (Irhamni, 2025). This limitation has resulted in the development of digital interventions that do not adequately address the root causes of communicative deficiencies. Therefore, the development of the DiBAK Module is justified as a context-sensitive and learner-centered innovation that integrates interactive, adaptive, and formative learning features. By moving beyond textbook dependency and incorporating non-threatening assessment strategies, the DiBAK Module aims to enhance students' confidence and communicative competence, thereby elevating the quality and relevance of Arabic language education in alignment with contemporary educational demands.

RESEARCH METHODOLOGY

This study adopts a qualitative approach employing a case study design to explore in depth the actual needs of the school community in the development of a Digital Arabic Communication Module (DiBAK). The selection of a case study design is justified by its capacity to provide a holistic, context-rich understanding of complex educational phenomena within real-life settings, particularly in examining the teaching and learning of communicative Arabic in secondary schools (Creswell & Poth, 2018). This approach enables the researcher to capture nuanced insights into the perceptions, lived experiences, and expectations of both teachers and students regarding the integration of digital elements to address challenges in oral communication.

Participants were selected by purposive sampling to ensure the inclusion of information-rich cases relevant to the research objectives. The sample comprised ten respondents: five Arabic language teachers with a minimum of five years of teaching experience and five secondary school students enrolled in Arabic language courses. The inclusion of these two groups was intended to provide a balanced perspective between instructional providers and learners, thereby allowing for a more comprehensive understanding of the effectiveness and limitations of existing digital teaching practices.

Data were collected by semi-structured interviews, which served as the primary research instrument. The interview protocol was developed based on established Needs Analysis frameworks and aligned with the study objectives. To ensure content validity, the instrument underwent expert review by two specialists in the field of Arabic language education and educational technology. The semi-structured format allowed flexibility for in-depth exploration through probing questions, while maintaining alignment with the predetermined thematic focus of the study.

The data collection process was conducted through both face-to-face sessions and online platforms (e.g., Google Meet), depending on participants' availability and preferences. Each interview session lasted approximately 30 to 45 minutes and was audio-recorded with participants' informed consent. The recordings were subsequently transcribed verbatim to facilitate systematic analysis. To ensure confidentiality and anonymity, each participant was assigned a unique identifier (e.g., PK1 for Participant 1), and all personal information was securely managed in accordance with ethical research standards.

Data analysis was carried out using thematic analysis following the six-phase framework proposed by Braun and Clarke (2006), which includes data familiarization, initial code generation, theme identification, theme review, theme definition and report production. The coding process was conducted rigorously to identify recurring patterns and sub-themes related to communication challenges, multimedia requirements, and interactive learning needs. These themes were then synthesized to inform the design and development of the DiBAK Module. To enhance the trustworthiness of the findings, strategies such as careful data handling, systematic coding procedures, and continuous reflection during analysis were employed. Ethical considerations were strictly observed throughout the study, ensuring that all data were used solely for academic purposes and that participants' confidentiality was fully protected.

FINDINGS AND DISCUSSION

This section presents and critically discusses the findings derived from semi-structured interviews with five Arabic language teachers and five secondary school students. Thematic analysis yielded three overarching themes that collectively inform the development needs of the Digital Arabic Communication Module (DiBAK). These themes are interpreted through a critical lens by integrating empirical evidence with recent scholarly literature, thereby highlighting the pedagogical and innovative significance of the proposed module.

Theme 1: Current Practices in Communicative Arabic Language Education

The findings indicate that current teaching and learning practices of Arabic at the secondary school level remain predominantly textbook-driven and theoretically oriented. Teacher respondents consistently reported a heavy reliance on prescribed textbooks as the primary instructional resource. Although the KSSM curriculum emphasizes the development of listening and speaking skills, its classroom implementation tends to prioritize textual comprehension and deductive grammar instruction. This reflects a persistent misalignment between curricular intentions and pedagogical practices. Such findings corroborate Fudzla Suraiyya Abdul Raup et al. (2025), who argue that teachers often remain within conventional pedagogical boundaries, focusing on content delivery rather than fostering communicative competence.

Furthermore, a notable gap exists between curriculum documentation and actual classroom practices. While teachers attempt to incorporate oral activities, these are frequently limited to mechanical drills, such as pronunciation exercises, rather than authentic communicative interactions. Students similarly reported limited exposure to meaningful speaking activities, citing time constraints and the absence of engaging instructional materials. This suggests that current pedagogical practices have yet to achieve the principles of student-centered and meaningful learning as envisioned in 21st-century education. Consequently, students remain passive recipients of linguistic input, with limited opportunities to transform knowledge into communicative output, as also highlighted by Mohamad Rofian Ismail et al. (2024).

Theme 2: Challenges in Communicative Arabic Language Learning

The analysis further reveals a range of interconnected linguistic and psychological challenges that hinder the development of students' communicative competence. A dominant issue identified by both teachers and students is the limitation in vocabulary acquisition, which significantly constrains students' ability to construct meaningful sentences. Students frequently reported experiencing communicative breakdowns due to insufficient lexical resources, which in turn affects their listening comprehension and overall confidence in speaking. This finding aligns with Khadijah Kamaruddin, Marina Abu Bakar, and Nurul Izzatie Aziz (2025), who emphasize that inadequate mastery of functional vocabulary is a key barrier to effective language use.

In addition to linguistic constraints, psychological factors—particularly low self-confidence and fear of making grammatical errors emerge as critical impediments. Students expressed anxiety when attempting to speak, largely due to concerns about incorrect usage of grammatical elements such as pronouns and gender agreement. This phenomenon reflects the broader issue of language anxiety, which, as noted by Zawawi Ismail et al. (2023), is often rooted in instructional environments that prioritize form accuracy over communicative fluency. The examination-oriented nature of the education system further intensifies this issue, as both teachers and students focus primarily on written performance, marginalizing oral communication skills.

Moreover, the lack of stimulating instructional materials and limited exposure to authentic language use outside the classroom exacerbate these challenges. Teachers highlighted the scarcity of teaching aids capable of simulating real-life communicative contexts, while students reported minimal opportunities to engage with Arabic beyond formal lessons. This finding is consistent with Muhammad Zulazizi Mohd Nawi (2020), who argues that limited exposure, coupled with the absence of interactive media, reduces the relevance and effectiveness of foreign language learning. Collectively, these challenges underscore the urgent need for innovative, technology-driven interventions to revitalize communicative Arabic instruction.

Theme 3: The Need for a Digital Arabic Communication Module (DiBAK)

The final theme highlights strong consensus among respondents regarding the necessity of developing a digital, communication-focused module. Both teachers and students expressed positive perceptions toward the proposed DiBAK Module, viewing it as a practical and engaging alternative to conventional instructional methods. Teachers emphasized its potential to diversify classroom activities, while students perceived it as a more interactive and motivating learning medium compared to traditional textbooks.

A key requirement identified is the integration of multimedia elements, particularly audio-visual resources that simulate authentic communication scenarios. Students specifically suggested the inclusion of short situational videos and native-speaker audio to enhance their understanding of pronunciation, intonation, and contextual language use. This finding is supported by Azlan Shaiful Baharum et al. (2023), who highlight the effectiveness of multimedia integration in promoting active engagement through multimodal stimulation.

Additionally, the study underscores the importance of designing the module based on cognitive progression and individual learner differences. Teachers advocated for a scaffolded structure, beginning with basic phrases and gradually advancing to more complex dialogues, to ensure inclusivity for learners of varying proficiency levels. The incorporation of gamification elements, such as reward systems and interactive challenges, was also identified as a critical motivational factor. Turgay Kucuk and Adem Daskan (2024) affirm that such elements can sustain learner engagement by fostering intrinsic motivation and healthy competition.

Another significant finding relates to the need for continuous and formative assessment mechanisms. Respondents emphasized that the module should include self-assessment features with real-time feedback, enabling students to monitor their progress without the pressure associated with high-stakes examinations. This approach is particularly valuable in reducing language anxiety and promoting a supportive learning environment.

In summary, the findings demonstrate that the proposed DiBAK Module aligns closely with the core principles of 21st-century learning, including interactivity, learner autonomy, and technology integration. Its innovative contribution lies in its ability to synthesize locally grounded needs analysis with adaptive digital learning features an area that remains underexplored in existing Arabic language instructional materials within the Malaysian context (Fudzla Suraiyya Abdul Raup et al., 2025). Consequently, the development of the DiBAK Module represents a significant step toward addressing persistent gaps in communicative Arabic education and enhancing the overall quality of language learning outcomes.

Discussion Synthesis

Overall, the integration of findings across current practices, identified challenges, and expressed needs reveals a systemic issue in the teaching and learning of Arabic communication at the secondary school level. The persistent reliance on textbook-centered instruction, coupled with students' anxiety toward grammatical accuracy, reflects a deeply entrenched traditional paradigm that prioritizes form over function. Such conditions have contributed to a communicative deficit, where learners acquire declarative knowledge of the language but remain unable to utilize it effectively in real-life contexts. This misalignment underscores the urgent need to reconceptualize Arabic language pedagogy from a knowledge-transmission model to a use-oriented, communicative framework.

In this regard, the proposed Digital Arabic Communication Module (DiBAK) should not be viewed merely as a tool for digitizing existing instructional content, but rather as a transformative pedagogical intervention. The integration of multimedia elements, gamification strategies, and continuous formative assessment represents a shift toward a more learner-centered and interaction-driven approach. These features have the potential to foster

immersive and low-anxiety learning environments, enabling students to engage in meaningful communication practices. Consequently, the DiBAK Module embodies the characteristics of disruptive educational innovation by addressing longstanding pedagogical limitations and aligning instructional practices with the demands of digitally oriented learners. Its implementation is expected to contribute significantly to the creation of a more dynamic, inclusive, and contextually relevant Arabic language learning ecosystem.

CONCLUSION

In conclusion, this study provides compelling evidence for the necessity of a paradigm shift in the teaching of Arabic at the secondary school level. The findings demonstrate that vocabulary limitations, an excessive examination-oriented culture, and the lack of authentic and engaging digital learning resources constitute major barriers to the development of students' communicative competence. These challenges highlight a critical gap between curricular aspirations and actual classroom practices, thereby justifying the need for targeted pedagogical innovation.

The development of the Digital Arabic Communication Module (DiBAK) is therefore positioned not merely as an alternative instructional tool, but as a critical intervention to bridge this gap. A key contribution of this study lies in emphasizing the centrality of needs analysis in guiding the design of effective, user-centered digital learning modules. By grounding the module in the real needs of both teachers and students, this study ensures greater relevance, usability, and pedagogical impact.

From a practical perspective, the findings offer valuable implications for multiple stakeholders. For educators, the study provides a framework for diversifying instructional strategies through the integration of digital and interactive elements. For students, it highlights the importance of adaptive and supportive learning environments in enhancing oral communication confidence. At the policy level, the study offers insights into the need for curriculum support materials that are aligned with the goals of 21st-century education and digital transformation.

As a direction for future research, it is recommended that subsequent studies adopt experimental or quasi-experimental designs to evaluate the effectiveness of the DiBAK Module across different educational settings. Such investigations would provide empirical evidence on its impact on students' communicative performance, particularly in terms of speaking fluency and confidence. Ultimately, it is anticipated that the DiBAK innovation will contribute to transforming Arabic language education into a more interactive, adaptive, and high-impact domain, capable of producing learners who are not only knowledgeable but also proficient in real-world communication at a global level.

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