



ANALYSIS OF FACTORS INFLUENCING THE SUCCESS OF AL-QURAN LEARNING IN THE DIGITAL ERA

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ABSTRACT

Quranic learning in the digital era has undergone significant transformations along with the development of educational technology, online learning platforms, and the use of interactive media in the learning process. However, the success of Quranic learning is not only determined by the availability of technology but is also influenced by various pedagogical, psychological, social, and spiritual factors. This study aims to analyze the factors that influence the success of Quranic learning in the digital era and identify the dominant factors that contribute to improving the quality of learning. The study used a qualitative approach with literature study methods and descriptive analysis of various national and international journals published in 2019–2025. Data were collected through documentation techniques and analyzed using data reduction, data presentation, and conclusion drawing models. The results show that the success of Quranic learning in the digital era is influenced by several main factors, namely teacher digital competence, student learning motivation, the use of interactive learning media, family environmental support, access to technology, adaptive learning methods, and the teacher's ability to integrate spiritual values with modern technology. Furthermore, the use of multimedia-based applications, interactive videos, gamification, and online learning platforms has been shown to increase students' interest, engagement, and ability to read and memorize the Quran. However, challenges such as low digital literacy, limited technological infrastructure, and lack of control over digital media use remain obstacles to optimizing learning. This study concludes that successful Quran learning in the digital era requires a synergy between technology, educator competence, family support, and innovative learning approaches so that Quran learning objectives can be achieved effectively, interactively, and sustainably.

Keywords: Digital Era, Educational Technology, Teacher Competence, Interactive Media, Learning Motivation.

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INTRODUCTION

Quranic learning is the core of Islamic education, playing a fundamental role in shaping students' character, spirituality, and morals. This learning process is not only oriented towards the technical skills of reading (tilawah) and memorizing (tahfidz), but also encompasses understanding the meaning, ([Hendawi et al., 2024](#)). Appreciating the values, and internalizing the Quranic teachings in everyday life. Throughout the history of Islamic education, Quranic learning has always been a top priority, beginning with traditional methods such as talaqqi and musyafahah, which emphasize direct interaction between teacher and student ([Nursikin & Nugroho, 2021](#)). However, over time, these methods have begun to transform to accommodate increasingly rapid social and technological changes.

Entering the digital era, the education system has undergone a significant paradigm shift. Information and communication technology has introduced various innovations in education, including in Quranic learning ([Rodney, 2020](#)). The advent of digital Quranic applications, online learning platforms, interactive videos, and multimedia-based learning systems has opened up new opportunities to expand learning access, increase time flexibility, and enrich students' learning experiences ([Shaikh et al., 2023](#)). This means that Quranic learning is no longer confined to classrooms or religious study groups, but can be accessed anytime and anywhere.

However, digital transformation in Quranic learning does not automatically guarantee success. Instead, this change presents new and quite complex challenges. On the one hand, technology provides convenience and innovation in delivering material, but on the other hand, it also demands the readiness of human resources, particularly teachers and students, in mastering digital literacy ([Fitrianto, 2024](#)). Furthermore, the spiritual nature of Quranic learning, which requires precision in tajweed, letter pronunciation, and reading etiquette, means that the digitalization process cannot be undertaken haphazardly without an appropriate pedagogical approach ([Abdelfattah et al., 2025](#)). Field observations indicate that there remains a gap between the potential of technology and the effective implementation of Quranic learning. Some educational institutions have adopted digital media, but have not yet been able to optimally integrate it into the learning process ([Akem et al., 2025](#)). This is influenced by various factors, such as low teacher digital competency, limited technological infrastructure, lack of training in the use of digital learning media, and a persistent reliance on conventional methods. Furthermore, student motivation and independence in learning are also important factors in determining the success of learning in this digital era ([Timotheou et al., 2023](#)).

Previous studies have provided an initial overview of the factors influencing digital-based Quranic learning. Research by [Akrami et al., \(2023\)](#) found that the use of interactive video and application-based learning media can increase students' interest and motivation in learning the Quran. However, the study also emphasized that the effectiveness of digital media is highly dependent on teachers' abilities to design and manage engaging and focused learning. This demonstrates that technology alone is insufficient without the support of educators' pedagogical and digital competencies.

Furthermore, research conducted by [Mawardi & Sukandar. \(2025\)](#) revealed that teachers' digital competence is a dominant factor in the success of technology-based Quranic learning. Teachers who are skilled at integrating technology into their lessons are able to create a more interactive, adaptive, and enjoyable learning environment. Conversely, limited digital competence in teachers can make learning less effective and even potentially reduce the quality of students' understanding of Quranic material.

Furthermore, research by [Ismail & Husti, \(2025\)](#) highlights the importance of the family environment in supporting successful Quranic learning in the digital age. They found that students who receive full family support, such as monitoring gadget use and learning support at home, tend to have greater consistency in reading and memorizing the Quran. Conversely, a lack of control over technology use at home can lead to distraction and decreased student focus.

Although various studies have addressed specific aspects of digital-based Quranic learning, there are still limitations in comprehensively integrating all factors influencing learning success. Most research focuses on one or two variables, such as learning media or teacher competency, without simultaneously examining the holistic relationship between pedagogical, psychological, social, and technological factors. Based on these conditions, it is understandable that successful Quranic learning in the digital era is the result of a complex interaction between various mutually influencing factors. These factors include teachers' digital competence, students' motivation and readiness to learn, the quality of the learning media used, family support, the availability of technological infrastructure, and the educational institution's ability to effectively manage digital-based learning. All of these factors cannot be separated from one another but must be viewed as an interconnected system.

Therefore, a more in-depth and systematic study is needed to comprehensively analyze the factors influencing the success of Quranic learning in the digital era. This research is crucial for making a scientific contribution to addressing gaps in previous studies and providing strategic recommendations for developing more effective, adaptive, and digitally appropriate Quranic learning models without diminishing the spiritual essence and Islamic values that underpin Quranic learning.

METHODS

This study uses a qualitative approach with a literature review, which aims to analyze the factors influencing the success of Quranic learning in the digital era ([Handrianto et al., 2025](#); [Rahman et al., 2025](#)). This approach was chosen because it is suitable for examining various previous research findings in depth and comprehensively, especially those related to the integration of technology in Quranic learning. Data sources in this study come from various scientific literature in the form of national and international journal articles, proceedings, and other scientific publications relevant to the topic of digital-based Quranic learning ([Kurniawan, 2025](#)). The literature used is focused on publications from 2019–2025 to ensure the freshness and relevance of the data to current developments in educational technology. Data collection techniques are carried out through documentation, namely by collecting, selecting, and reviewing

various literature sources that are in accordance with the research focus. The selection process is carried out based on the relevance of the content, the credibility of the source, and its relevance to the theme of factors for the success of Quranic learning in the digital era.

Data analysis was conducted using the Miles and Huberman interactive analysis model, which includes three main stages: data reduction, data presentation, and conclusion drawing/verification ([Rahman et al., 2024](#)). In the data reduction stage, researchers sorted and grouped information relevant to learning factors. Next, the data was presented in narrative form to facilitate understanding of patterns and relationships between variables. The final stage was drawing conclusions to formulate key findings related to factors influencing the success of Quranic learning in the digital era. With this method, the research is expected to provide a systematic, comprehensive, and in-depth overview of the key factors determining the success of Quranic learning amidst the development of digital technology.

RESULT AND DISCUSSION

Based on the analysis of various literature reviewed, it was found that the success of learning the Qur'an in the digital era is influenced by a number of interrelated factors that form a complex system. These factors do not stand alone, but interact with each other in determining the effectiveness of the learning process. In general, the findings indicate that there are six main factors that are most dominant, namely: (1) teacher digital competence, (2) student learning motivation, (3) use of interactive learning media, (4) family environmental support, (5) availability and access to technology, and (6) adaptive learning strategies and methods.

Teachers' Digital Competence in Al-Quran Learning

The digital competence of teachers is the most fundamental factor in determining the success of learning the Qur'an in the rapidly growing digital era. Teachers not only function as material deliverers, but also as facilitators, mediators, and learning planners who are able to integrate the values of the Qur'an with the development of technology ([Arina et al., 2024](#)). In this context, teachers are required not only to master the knowledge of the Qur'an such as tajwid, letter makhraj, and reading fluency, but also to have sufficient digital literacy skills to manage the technology-based learning process. The results of the study show that teachers who have good digital competence tend to be able to create learning that is more interactive, interesting, and in line with the characteristics of students of the digital generation ([Basir et al., 2024](#)). This is because technology enables the presentation of material in various forms such as learning videos, murottal audio, digital Al-Qur'an applications, as well as interactive presentations that can strengthen students' understanding. In addition, teachers who are digitally literate are also easier to innovate learning, such as the use of online quizzes, recordings of student recitations, and the use of e-learning platforms for distance learning. This ability makes the learning process more flexible, unlimited in space and time, and more accessible to students. Thus, the teacher's digital competence not only improves the quality of material delivery, but also strengthens the effectiveness of learning as a whole.

Conversely, teachers who lack adequate digital competency tend to rely on conventional, one-way, and less varied learning methods. This makes Quranic learning less engaging, less interactive, and less able to adapt to the needs of students in the digital age ([Guillén-Gámez & Mayorga-Fernández, 2020](#)). Consequently, the potential of technology, which should enhance the learning process, cannot be optimally utilized. In some cases, teachers' unpreparedness to master technology can even create a gap between learning objectives and student outcomes. Therefore, improving teachers' digital competency is a pressing need to address the challenges of Quranic education in the modern era. This improvement can be achieved through ongoing training, learning technology workshops, mentoring on the use of digital applications, and strengthening teacher learning communities. By strengthening digital competency, it is hoped that teachers will be able to integrate technology wisely without losing the spiritual values that are at the heart of Quranic learning. Ultimately, teachers' digital competency will be key to creating Quranic learning that is effective, adaptive, and relevant to current developments.

Student Learning Motivation

Student learning motivation is an internal factor that significantly determines the success of Quranic learning, especially in the context of the digital era, which is rife with technological distractions ([Anggraini & Mustofa, 2024](#)). This motivation stems not only from intrinsic drives such as the intention to worship, religious awareness, and the desire to understand the Quran, but is also influenced by extrinsic factors originating from the learning environment. The results of the study indicate that student learning motivation will increase if the learning process is presented in an interesting, interactive manner, and in accordance with the characteristics of the digital generation ([Chaudhuri, 2020](#)). The use of media such as gamification, animated videos for learning Tajweed, and interactive Quranic memorization applications has been proven to create a more enjoyable and less boring learning atmosphere. In addition, features such as memorization challenges, achievements, and point systems in digital applications also provide psychological encouragement for students to be more active in learning. Digital technology, in this case, functions not only as an aid but also as a stimulus that can increase student engagement in the Quranic learning process. With the variety of technology-based methods, students feel more challenged and less bored, so the learning process becomes more effective and sustainable.

However, the study also shows that students' learning motivation can decline if technology use is not properly directed and focuses solely on entertainment. When digital media lacks clear learning objectives, students tend to focus more on visuals and games than on the substance of Quranic learning itself ([Hoerudin et al., 2023](#)). This can lead to a shift in learning orientation, where technology is viewed more as a means of entertainment than as a tool for enhancing religious understanding. Furthermore, uncontrolled gadget use also has the potential to disrupt students' concentration and reduce discipline in participating in the learning process ([Minarti et al., 2023](#)). Therefore, teachers and parents need to play a role in guiding technology use to ensure it remains within the correct educational framework. Teachers must be able to design learning that is not only visually appealing but also has strong

educational and spiritual value. This way, students' learning motivation can be maintained and even continuously increased in Quranic learning in the digital era.

Use of Interactive Learning Media

Interactive learning media plays a crucial role in enhancing the effectiveness of Quranic learning in the digital era, as it bridges the gap between traditional learning needs and the demands of modern technology ([Wijaya, 2024](#)). Studies show that various forms of media, such as Tajweed learning videos, mobile Quranic applications, audio recitations, and e-learning platforms, significantly contribute to helping students improve their reading quality, accelerate memorization, and understand Tajweed principles more easily and systematically ([Fadlillah et al., 2025](#)). Audio-visual media allows students to both see and hear the correct pronunciation, making imitation more effective than conventional methods alone. Furthermore, the use of digital applications also allows for automatic correction, verse repetition, and error-marking, all of which help students learn more independently. In this context, interactive media serves not only as a tool but also as a primary learning resource accessible anytime and anywhere ([Al-Jarf, 2026](#)). This aligns well with the characteristics of digital-age students, who tend to be more responsive to visual and technology-based learning. Therefore, interactive media significantly contributes to creating a more flexible, effective, and engaging Quranic learning experience.

In addition to providing easy access and flexibility, interactive learning media also enables a more intensive and sustainable self-learning process. Students can review material as needed without always having to rely on the presence of a teacher in class, thus making the learning process more personalized and adaptive ([Aslam et al., 2023](#)). However, the results of the study also show that the effectiveness of this media is highly dependent on the learning design used by educators. Media designed without an appropriate pedagogical approach has the potential to cause students to become merely passive users who enjoy the visual display without deeply understanding the substance of Quranic learning. In some cases, undirected use of digital media can even diminish the essence of learning, which should emphasize understanding the meaning, etiquette, and practice of the Quran. Therefore, the role of teachers in designing, directing, and integrating learning media is crucial so that technology is not merely a means of entertainment, but a true tool for improving the quality of learning. With the right design, interactive media can bridge technological advances with the spiritual values of the Quran in a balanced and sustainable manner.

Family Environmental Support

The family environment plays a significant and strategic role in supporting successful Quranic learning in the digital era, as it is the primary educational environment for students. Studies show that students who receive active family support, such as mentoring during the learning process, attention to memorization development, and the habit of reciting the Quran at home, have a higher success rate than those who do not receive such support ([Jossiselfiah et al., 2026](#)). Family support is not only emotional but also practical, including scheduling study time, providing learning facilities, and providing ongoing motivation. In the context of Quranic learning, religious habits developed within the family environment serve as an important

foundation for students' consistent learning. Furthermore, interactions between parents and children during Quranic reading or memorization activities can strengthen emotional bonds and improve the quality of learning. Thus, the family plays a role not only as a passive supporter but also as an integral part of the ongoing Quranic education process ([Nihayah, 2025](#)).

In the context of the digital era, the role of the family is becoming increasingly important due to the increasing use of technology and digital devices by students in the learning process. Families serve as the primary controllers of gadget use to prevent misuse for unproductive activities or disrupt the learning process. Studies show that students who lack family supervision of their technology use are more easily distracted by digital entertainment content, thus reducing their focus on learning the Quran ([Nudin et al., 2024](#)). Conversely, families who actively guide the use of technology for educational purposes are able to create a more conducive and focused learning environment. Parental involvement in monitoring the use of Quran applications, assisting with memorization, and providing regular spiritual encouragement are crucial reinforcing factors in maintaining consistent student learning. Furthermore, families also play a role in shaping a religious culture at home, which indirectly reinforces Quranic values in daily life. Thus, family support not only influences cognitive aspects but also the formation of character and discipline in students studying the Quran in the digital era.

Technology Availability and Access

The availability and access to technology are external factors that significantly determine the success of Quranic learning in the digital era, as the entire digital-based learning process relies heavily on the available technological infrastructure. Studies show that devices such as smartphones, laptops, and tablets, along with a stable internet connection, are key components influencing the smoothness of the learning process. Without adequate device and network support, digital Quranic learning will experience obstacles in terms of material access, learning interactions, and evaluation of learning outcomes. In this context, technology serves not only as a supporting medium but also as a primary bridge connecting students to a broader and more varied Quranic learning resource. The availability of good technology allows students to access digital Quranic applications, learning videos, and e-learning platforms more flexibly without being limited by space and time. This provides a significant opportunity to improve learning effectiveness, particularly in aspects of recitation repetition, memorization practice, and independent understanding of Tajweed. Thus, technology has become a crucial element that cannot be separated from the modern Quranic learning process ([Jamil et al., 2025](#)).

However, the study also revealed a significant digital divide between students with adequate access to technology and those with limited access. This gap exists not only between individuals but also between regions, particularly between urban areas with better technological infrastructure and rural areas with limited internet access and digital devices. Students with comprehensive technological access tend to have, grasp the material more quickly, and be more independent in learning the Quran through digital media. Conversely, students with limited access often face difficulties in

optimally participating in learning, both in terms of materials, interaction with teachers, and the use of learning applications. This situation has the potential to lead to significant disparities in learning outcomes if not addressed immediately. Therefore, equitable access to technology is crucial and urgent in supporting the success of Quran learning in the digital era. This effort can be achieved through the provision of more equitable internet infrastructure, support for learning devices from educational institutions, and government policies that support the equitable distribution of digital education. With equal access to technology, all students have the same opportunity to obtain quality and sustainable Qur'an learning ([Rahman et al., 2024](#)).

Adaptive Learning Strategies and Methods

Adaptive learning strategies and methods are one of the key factors in determining the success of learning the Qur'an in the digital era, because it functions as a link between the traditional values of Islamic education and the development of modern technology. In this context, teachers are required to not only master conventional learning methods, but also be able to integrate them with a more innovative and flexible digital approach. Traditional methods such as talaqqi and musyafahah still have an important role because they allow for direct correction of students' reading, especially in the aspect of letter makhraj and tajwid accuracy. However, in the digital era, the method needs to be enriched with the use of technology such as learning videos, interactive Al-Qur'an applications, and online learning platforms so that the learning process becomes more varied and easily accessible ([Wijaksono et al., 2026](#)). The results of the study show that students understand and remember the material more easily when learning is done with a diverse and non-monotonous approach. In addition, adaptive strategies also allow teachers to adjust learning methods to the characteristics and abilities of each student, so that the learning process becomes more personal and effective. Thus, an adaptive learning strategy does not only focus on knowledge transfer, but also on strengthening learning experiences that are more meaningful and sustainable.

The study also shows that the blended learning approach, a combination of conventional and digital methods, has a more significant impact on improving the quality of Quranic learning. This approach allows for a balance between direct interaction between teachers and students and the use of technology as a learning support medium. In practice, students can study face-to-face to receive direct guidance from teachers, while simultaneously continuing their learning independently through digital media outside the classroom. This provides high flexibility in the learning process without diminishing the spiritual essence of Quranic learning. Furthermore, blended learning also allows for the simultaneous strengthening of cognitive, affective, and psychomotor aspects, resulting in more comprehensive learning outcomes. Teachers who are able to implement this strategy effectively will find it easier to create an interactive, dynamic, and meaningful learning environment ([Zakariyah et al., 2025](#)). Therefore, adaptive learning strategies and methods are crucial elements in ensuring that the digital transformation in Quranic learning continues in line with the upholding of Islamic values, which are at the core of the educational process itself.

Overall, the results of this study indicate that the success of Quranic learning in the digital era is the result of a complex synergy between various interrelated and inseparable factors. Quranic learning in the digital era can no longer be understood simply as a conventional process of knowledge transfer, but has evolved into a learning system involving interactions between technology, humans, the environment, and spiritual values. Digital technology has indeed made a significant contribution to increasing the accessibility, flexibility, and effectiveness of learning, but it cannot stand alone without the support of pedagogical, psychological, and social factors. In this context, technology functions as a tool that strengthens the learning process, not as a substitute for the role of teachers or the core values of Quranic education. Therefore, the success of learning is largely determined by the ability of all educational components to adapt and collaborate harmoniously amidst the rapid development of technology.

Teacher competence is the primary foundation of the entire learning process, as teachers play a central role as designers, directors, and controllers of the Quranic learning process. Teachers with strong digital and pedagogical competencies are able to integrate technology with appropriate learning methods, making the learning process more effective and meaningful. Furthermore, student motivation is a key driver determining the extent to which they actively engage in the learning process. Without strong motivation, even the most sophisticated technology will not significantly impact learning outcomes. Digital learning media serve as facilitators, enriching the learning experience, providing a variety of methods, and helping students understand Quranic material more easily and engagingly. Meanwhile, the family and social environment act as external reinforcements, maintaining the consistency of students' learning outside the school or educational institution environment. Equally important, technological infrastructure is the primary supporter, ensuring the entire digital-based learning process runs smoothly without significant technical obstacles.

Thus, it is understandable that learning the Quran in the digital era requires a holistic, integrative, and sustainable approach. This approach must be able to combine aspects of technology, pedagogy, psychology, and spirituality in a balanced manner so that the main goal of learning the Quran remains optimally achieved. Without this balance, learning has the potential to lose its essence as a means of forming Islamic character based on Quranic values. Therefore, it is necessary to develop a Quranic learning model that is not only oriented towards the use of technology but also able to maintain and strengthen Islamic values as the core of the educational process. The ideal learning model is one that is able to combine technological advances with spiritual depth, thus producing students who are not only able to read and memorize the Quran, but also understand, internalize, and practice it in their daily lives.

CONCLUSIONS

The success of Quranic learning in the digital era is the result of the synergy of various interrelated and inseparable factors, namely teachers' digital competence, students' learning motivation, the use of interactive learning media, family support, the

availability and access to technology, and adaptive learning strategies and methods. Teachers' digital competence is the main foundation because teachers play the role of learning designers and directors who are able to effectively integrate Quranic values with technology, while students' learning motivation is the main driver that determines the level of engagement and consistency in the learning process, especially when learning is packaged in an interesting and interactive manner. Digital learning media functions as a facilitator that enriches the learning experience and facilitates reading comprehension and memorization of the Quran, while family support acts as an external reinforcement that maintains discipline and continuity of learning outside the school environment. On the other hand, the availability and access to technology are important prerequisites that determine the smoothness of the learning process, although there is still a digital divide that needs to be addressed, while adaptive learning strategies through a blended learning approach can combine traditional methods such as talaqqi and musyafahah with modern technology in a balanced manner. Thus, learning the Qur'an in the digital era requires a holistic, integrative, and sustainable approach so as not only to improve cognitive aspects and reading and memorization skills, but also to maintain the spiritual essence and Islamic values as the main goal of Qur'an education in shaping the character of students.

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