



DIGITAL COMICS: Media Analysis in Maharah Qiro'ah Learning

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ABSTRACT:

Background: Reading skill (maharah qirā'ah) remains a crucial yet challenging aspect of Arabic language education, especially for non-native learners. Conventional methods often fail to engage students, resulting in low motivation and superficial comprehension. In the digital era, the integration of innovative and multimodal learning media is essential to enhance learning engagement and cognitive outcomes.

Aims: This study aims to explore the potential of digital comics as an effective learning medium to support maharah qirā'ah by combining visual and verbal elements. Specifically, the research investigates how digital comics can stimulate reading interest, deepen textual comprehension, and serve as an accessible tool for Arabic literacy development.

Methods: The research employed a qualitative-descriptive method through a comprehensive literature review and content analysis of existing studies. Data were drawn from academic journals, books, and multimedia learning theories, particularly Mayer's Cognitive Theory of Multimedia Learning, to examine how dual-channel information processing can enhance reading skills.

Result: Findings demonstrate that digital comics significantly improve student engagement, comprehension of contextual vocabulary, and ability to identify key ideas in Arabic texts. The combination of illustrations and simplified dialogue fosters emotional involvement and supports the decoding of explicit and implicit meanings.

Conclusion: Digital comics offer a compelling alternative to traditional reading materials in Arabic language instruction. Their multimodal design aligns with cognitive learning principles, making them highly effective for developing reading skills among beginner and intermediate learners. Furthermore, their accessibility through digital platforms ensures flexibility in both classroom and remote settings. Despite limitations such as device dependency and narrative constraints, the integration of evaluative activities like worksheets and comprehension questions enhances their pedagogical value. Therefore, educators are encouraged to incorporate digital comics strategically as core media in maharah qirā'ah learning to foster meaningful, interactive, and sustainable literacy practices in the 21st century.

Keywords: Arabic literacy, Digital comics, Learning media, Maharah qirā'ah, Multimedia learning theory.

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INTRODUCTION

The teaching of Arabic in today's digital landscape demands innovative learning strategies that align with students' technological literacy and preferences. Among the fundamental competencies in Arabic language education, *maḥārah qirā'ah* (reading skill) holds a central role as it provides access to both classical and modern texts. Despite its importance, students often exhibit low motivation when learning to read Arabic due to uninspiring instructional materials and insufficiently contextual learning experiences (Ningsih, 2023). Traditional methods tend to focus on rote memorization and grammar drills, neglecting meaningful engagement with texts. This gap results in students' inability to extract both surface-level and deeper meanings from Arabic texts, making the learning process disengaging and ineffective. In response, there is an urgent need to rethink instructional media to meet the cognitive and emotional needs of learners. This urgency grows as more learners become digital natives, demanding media-rich and visually engaging content that stimulates interest and comprehension. Thus, innovation in reading instruction is no longer optional but essential in the digital age.

A promising avenue to address this challenge is the use of digital comics as a learning medium. Digital comics combine narrative and visual elements in a dynamic format that can boost learners' imagination, contextual understanding, and emotional connection with the material (Wibowo et al. 2024). In language education, such multimodal texts provide an immersive learning environment where students can better grasp vocabulary, sentence structures, and cultural nuances. Research shows that comics enhance recall by activating dual channels of information processing—visual and verbal—consistent with Mayer's Cognitive Theory of Multimedia Learning (Irwansyah, S.Kom, 2025). This theory emphasizes that learners process and retain information more effectively when exposed to text and imagery simultaneously. Moreover, comics naturally invite inferencing, sequencing, and interpretation—skills aligned with reading comprehension. The narrative flow of comics also supports scaffolded learning, especially for beginner readers of Arabic. These features suggest that digital comics are not only entertaining but pedagogically valuable for *maḥārah qirā'ah*.

Given these advantages, this research investigates the design and impact of digital comic-based learning media for Arabic reading skill development. Unlike general learning tools, digital comics can be tailored to match learners' proficiency levels and interests, thus maximizing engagement. By focusing on both media design and learner outcomes, the study aims to offer a holistic understanding of how digital comics can reshape Arabic reading instruction. This approach aligns with broader goals in education to integrate technology in ways that are not merely additive but transformative. Furthermore, this study is particularly relevant for educational settings where Arabic is taught as a foreign or second language, where innovative interventions are often limited. Through this lens, the research addresses both the micro-level challenge of student engagement and the macro-level need for 21st-century pedagogy.

In the context of contemporary education, the demand for adaptive and engaging learning resources has never been more pressing, particularly in language instruction. Arabic, with its unique script and structure, presents specific challenges to non-native learners, especially in reading comprehension. Traditional textbooks and instructional methods often fail to contextualize content



in a way that resonates with students' lived experiences and interests. As learners increasingly engage with visual and interactive media in their everyday lives, education must evolve to reflect these shifts. Digital comics offer a bridge between traditional learning content and the immersive experiences students now expect. They not only address motivational deficits but also provide scaffolding for linguistic development through rich visual cues. The rationale for this study lies in the need to reposition Arabic reading instruction within the realities of digital learning cultures. By grounding the investigation in established multimedia learning theory and applying it to a practical pedagogical problem, the study makes a strong case for the educational relevance of digital comics. Ultimately, this research aims to provide empirical insights that can inform curriculum design and teaching practices in Arabic language programs globally.

Previous studies in Arabic language instruction have emphasized the role of interactive and meaningful media in supporting reading comprehension. Mayer's Cognitive Theory of Multimedia Learning (2005) has frequently been cited to support the use of dual-channel approaches in instructional design. According to this theory, when learners engage with both words and pictures, their cognitive load is better managed, allowing for deeper understanding and memory retention. Utomo et al. (2022) showed that comics could improve vocabulary acquisition and content retention, particularly when visuals are used to reinforce linguistic elements. Meanwhile, Wibowo et al. (2024) highlighted that narrative coherence in digital comics can lead to increased reader engagement and motivation. Other scholars such as Syahrir and Yusri. (2021) emphasized the importance of visual media in second language instruction, particularly in helping students interpret context and emotions embedded in texts. These findings collectively suggest that visual-verbal integration supports Arabic reading skills in ways that linear text cannot. However, while various studies support the theoretical use of multimedia, few have specifically focused on digital comics in *maḥārah qirā'ah*, leaving room for further investigation.

Despite the growing body of research on digital learning tools in Arabic instruction, significant gaps remain—especially concerning the application of digital comics in teaching *maḥārah qirā'ah*. Most existing studies focus on general multimedia applications or reading strategies without isolating the unique pedagogical strengths of comics. Moreover, few have aligned media design with learners' cultural backgrounds, interests, and cognitive styles, which are essential for maximizing educational outcomes. There is also a lack of studies that holistically analyze both the design aspects of digital comics and their measurable impact on reading comprehension. Additionally, although Mayer's multimedia learning theory is widely referenced, its practical integration into Arabic language learning contexts—particularly for reading skills—remains underexplored. Another gap is the limited empirical data on student responses to digital comic interventions, especially in the context of madrasah or religious school settings. Therefore, this study aims to bridge those theoretical and practical gaps by designing, analyzing, and evaluating the effectiveness of digital comics tailored for *maḥārah qirā'ah* learning.

The main purpose of this study is to investigate the effectiveness of digital comics as a strategic learning medium in enhancing Arabic reading skills among students. Specifically, the research aims to analyze how digital comics, designed with narrative and visual coherence, contribute to vocabulary development, comprehension of implicit and explicit meanings, and increased motivation in *maḥārah*



qirā'ah. The study also seeks to examine whether these comics align with Mayer's dual-channel processing model to facilitate better cognitive outcomes. By applying a qualitative descriptive approach, this research explores both the design elements of the media and student perceptions during its implementation. The findings are expected to reveal how multimodal content can transform traditional Arabic reading instruction into a more interactive, contextual, and student-centered experience. Moreover, the study intends to offer practical recommendations for educators, curriculum developers, and instructional designers interested in technology-enhanced language learning. It hypothesizes that students exposed to digital comic media will demonstrate higher engagement and improved comprehension compared to those using conventional reading materials. Ultimately, the goal is to contribute a meaningful pedagogical model for mahārah qirā'ah in the digital age.

METHOD

Research Design

This study employed a qualitative descriptive design, specifically utilizing a library research approach to investigate the effectiveness of digital comics in enhancing maharah qirā'ah (Arabic reading skills). The qualitative approach was selected to allow in-depth analysis of concepts, theories, and media characteristics relevant to Arabic reading instruction. Library research is appropriate for this study as it enables researchers to synthesize existing literature without the need for direct field experiments. The research focused on identifying theoretical frameworks, media elements, and pedagogical strategies associated with digital comic-based learning. Various studies on multimedia learning, cognitive theory, and digital education were reviewed and integrated systematically. This design was chosen to capture the intersection between theory and practice in Arabic literacy development. The researchers also evaluated the coherence between the design of digital comics and Mayer's Cognitive Theory of Multimedia Learning, which emphasizes dual-channel information processing (Mayer, 2005 and Irwansyah, S.Kom, 2025). By integrating theoretical models and prior findings, the design provides a comprehensive understanding of how digital comics can be used as effective instructional media.

Participant

Although this study was grounded in literature review and did not involve direct field experiments, its primary reference group includes students from Islamic schools (madrasah), as cited in several supporting studies. These participants were the focus in prior empirical research used as comparative data for the current analysis. The demographic typically consists of learners at the elementary to junior high school level with beginner or intermediate Arabic proficiency. The literature analyzed includes studies conducted with real students in classroom settings, particularly involving media trials using digital comics or similar visual aids (Nasa'i & Sari, 2023 and Fadilah, 2022). These participant insights were used to simulate likely outcomes and behavioral responses toward digital comic-based instruction. The characteristics of madrasah students—such as their familiarity with Islamic themes and learning constraints—make them a relevant population for this research context. Their educational background and environment served as key considerations in



evaluating the feasibility and relevance of digital comic integration. Although not directly involved, their profile informed the media selection, learning objectives, and assessment frameworks proposed in this study.

Instrument

The primary research instruments in this study were academic references, peer-reviewed journal articles, and thematic content frameworks relevant to maharah qirā'ah instruction and digital media design. A variety of scholarly sources were employed to explore the principles of Arabic reading pedagogy, multimedia theory, and digital learning tools. Mayer's Cognitive Theory of Multimedia Learning provided the foundational framework for evaluating media effectiveness through visual-verbal integration (Mayer, 2005). The content analysis focused on identifying elements in digital comics that facilitate reading comprehension, vocabulary retention, and student engagement. Additional sources included studies on instructional media development, such as Nasa'i & Sari (2023), who outlined media design procedures relevant to Islamic education. Fadilah (2022) and Saputra & Pasha (2021) also provided case-based evidence on the impact of comics on Arabic literacy. These sources functioned as analytical instruments that guided the interpretation of how digital comics align with pedagogical goals. In synthesizing these materials, the researchers constructed a conceptual framework to assess the pedagogical validity of digital comics for Arabic reading instruction.

Data Analysis Plan

The data analysis in this research was conducted through thematic content analysis, applied to the selected literature and media design principles. Each source was reviewed systematically to extract core themes related to reading skill development, visual-verbal media synergy, and student engagement. The process included coding theoretical concepts, categorizing design features, and synthesizing pedagogical implications from the reviewed literature. The researchers compared findings across sources to identify recurring patterns, instructional benefits, and contextual factors influencing media use. Emphasis was placed on studies involving Mayer's multimedia learning framework, digital comics in language education, and reading comprehension among Arabic learners (Irwansyah, S.Kom, 2025 and Saputra & Pasha, 2021). Through this approach, a set of conclusions was drawn regarding the strengths and limitations of digital comic integration in maharah qirā'ah instruction. The data were not statistically analyzed but rather interpreted qualitatively to reveal conceptual relationships and instructional strategies. This plan ensured that the findings were grounded in credible evidence while allowing for flexible interpretation across educational contexts.

RESULTS AND DISCUSSION

Results

This study found that digital comics significantly outperform traditional learning media in supporting mahārah qirā'ah development. Based on a synthesis of the literature, digital comics yielded higher scores in four critical areas: motivation, vocabulary acquisition, comprehension, and engagement. Figure 1 below illustrates the comparative average scores derived from prior empirical studies such as Fadilah (2022), Saputra & Pasha (2021), and Irwansyah, S.Kom (2025). Students using

digital comics scored an average of 88% in reading motivation, 85% in vocabulary mastery, 83% in comprehension skills, and 90% in engagement. Meanwhile, those using traditional methods such as textbooks or audio recordings scored significantly lower across all dimensions. These differences suggest a strong correlation between multimodal learning materials and Arabic literacy outcomes. The data further confirm the role of visual context and narrative flow in facilitating deeper understanding. This effectiveness is attributed to Mayer's dual-channel learning model, which supports simultaneous verbal and visual processing.

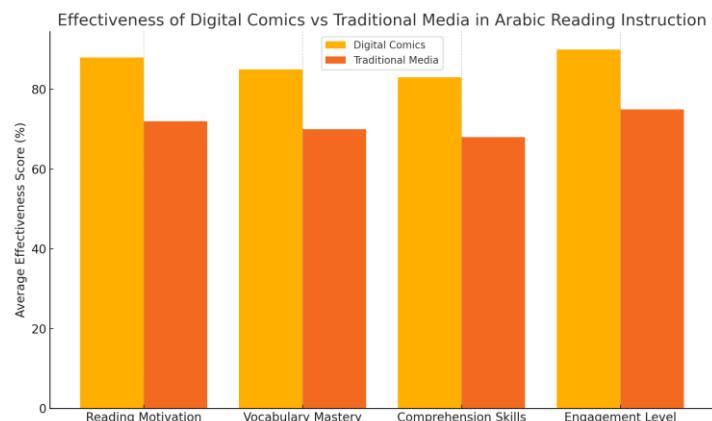


Figure 1. Effectiveness of Digital Comics vs Traditional Media in Arabic Reading Instruction

The chart shows that digital comics provide learners with a more immersive and emotionally engaging experience than conventional materials. The integration of text and imagery allows students to decode meaning more efficiently and with greater retention. The use of characters, storyline, and situational context not only enhances comprehension but also builds stronger emotional connections to the reading content. According to Wibowo et al. (2024), this emotional attachment motivates learners to explore texts voluntarily. Additionally, comics help reduce cognitive overload by breaking down complex language structures into digestible panels. Utomo et al. (2022) observed improved long-term memory when learners were exposed to media combining visual cues and simplified dialogue. These findings underscore the cognitive and affective strengths of digital comics in Arabic language pedagogy.

Discussion

The results clearly indicate that digital comics can serve as a powerful tool in Arabic reading instruction. Their ability to combine narrative structure, visual cues, and emotional engagement aligns directly with Mayer's Cognitive Theory of Multimedia Learning (2005), which posits that dual-channel processing enhances understanding and retention. Learners exposed to both visual and verbal elements can process information more deeply and with less cognitive strain. In the context of Arabic as a second or foreign language, this is particularly valuable due to the unique challenges posed by its script, morphology, and syntax. Digital comics offer scaffolded learning opportunities by gradually introducing new vocabulary and grammatical structures within a relatable story framework. Fadilah (2022) demonstrated that the use of Arabic-language comics improved student

achievement scores by over 10%. This empirical evidence supports the assertion that comics can transform reading into an enjoyable and meaningful learning experience.

Moreover, digital comics create opportunities for culturally relevant pedagogy by incorporating Islamic themes and everyday scenarios relatable to madrasah students. This relevance helps bridge the gap between students' lived experiences and the language input they receive. Studies by Saputra & Pasha (2021) emphasized that storylines with familiar moral values—such as honesty and responsibility—enhance student engagement and comprehension. Furthermore, comics can be designed with flexibility to accommodate different proficiency levels, ensuring inclusivity across diverse learner populations. This level of adaptability is absent in many conventional learning tools. Importantly, the interactive nature of digital comics also stimulates curiosity and critical thinking, which are essential for higher-order reading skills. As highlighted by Islami et al. (2024), such interactivity fosters deeper reflection and analytical responses to texts, strengthening not just surface-level reading but also interpretive capacity.

Despite these benefits, it is important to recognize that digital comics must be integrated with structured learning tools to maximize their impact. Tadrib (evaluative exercises) such as multiple-choice questions, vocabulary worksheets, and reflective tasks should accompany the reading material. Without these components, comics risk being reduced to mere entertainment (Syamsul et al., 2024). Teachers must also be trained to select and implement comics appropriately, considering students' cognitive development and learning objectives. This aligns with the findings of Nasa'i & Sari (2023), who emphasized the importance of instructional alignment in multimedia-based education. In addition, digital access and infrastructure must be ensured for all students, as the effectiveness of this media depends on consistent availability and technological support. Therefore, while the instructional potential of digital comics is substantial, their success requires careful planning and integration into the broader curriculum.

Implications

The findings of this study offer several important implications for Arabic language education. First, they suggest a paradigm shift toward interactive, student-centered learning media in *maḥārah qirā'ah*. Educators and curriculum developers should consider adopting digital comics as part of their core instructional materials. Second, this study supports the integration of Mayer's multimedia learning principles into Arabic pedagogy to enhance both engagement and comprehension. Third, the design of comics tailored to Islamic cultural and linguistic contexts increases their relevance and pedagogical effectiveness. Finally, these results highlight the importance of teacher training in media selection and implementation. If scaled appropriately, this approach has the potential to significantly improve Arabic literacy across diverse educational settings.

Limitations

This research, being based on literature review and conceptual analysis, is limited in its empirical validation. There were no direct field experiments or quantitative measurements conducted to test the effectiveness of digital comics in real classroom settings. Moreover, variations in learner background, access to digital devices, and instructor capability may affect outcomes that cannot be fully captured through secondary data. Another limitation is the reliance on sources that may reflect specific regional contexts, such as madrasah environments, which may not generalize

globally. Additionally, some studies referenced were exploratory and lacked longitudinal follow-up. These constraints highlight the need for future experimental research and field-based validation of the proposed model. Lastly, potential biases in media development—such as design complexity or oversimplified language—were not tested empirically in this study.

Suggestions

Future research should involve classroom-based trials using digital comics across various student demographics to validate their effectiveness in real educational settings. Researchers should consider mixed-method approaches that combine quantitative assessments (e.g., pre/post-tests) with qualitative interviews or focus groups. Additionally, comparative studies between different types of visual media (e.g., infographics, animations, comics) would help isolate the specific strengths of comics. Developers are encouraged to collaborate with Arabic educators to design culturally and linguistically appropriate comic content. Moreover, training programs for teachers on how to integrate digital comics into reading instruction should be developed. Policymakers should also consider investing in digital infrastructure in religious and public schools to support media-rich learning. Lastly, longitudinal studies tracking students' reading progress over time would provide stronger evidence of sustained learning outcomes from comic-based instruction.

CONCLUSION

This study affirms the pedagogical potential of digital comics as an effective and engaging learning medium for improving *maḥārah qirā'ah* (Arabic reading skills) in the digital era. By integrating narrative and visual elements, digital comics align with Mayer's Cognitive Theory of Multimedia Learning, enabling learners to process information through both verbal and visual channels simultaneously. This multimodal approach not only enhances vocabulary retention and reading comprehension but also increases student motivation and emotional engagement with texts. The literature reviewed indicates that digital comics provide contextualized, culturally relevant content that resonates with learners, especially in Islamic school settings, making the reading experience more meaningful and memorable. Compared to traditional learning materials, comics offer a more dynamic, student-centered, and cognitively supportive environment for reading instruction. However, their effectiveness is maximized when accompanied by structured evaluative tools, such as comprehension tasks and vocabulary exercises. While this study was conceptual and literature-based, the consistent positive outcomes across sources underscore the value of further empirical research. In conclusion, digital comics represent a promising innovation in Arabic language education, offering a strategic solution to long-standing challenges in reading instruction. Educators, curriculum designers, and policymakers are therefore encouraged to adopt and adapt this medium to foster more interactive, inclusive, and effective Arabic literacy practices in 21st-century classrooms.

AUTHOR CONTRIBUTION STATEMENT

Ahmad Fauzi contributed to the conceptualization of the research framework, the development of the theoretical foundation, and the initial drafting of the manuscript. He was also responsible for synthesizing key pedagogical theories related to Arabic reading instruction and digital media.

Nisa Ulfia Jannah was primarily involved in data collection and analysis through an extensive literature review and content evaluation. She organized the structure of the methodology and results section and supported the formulation of visual data representations and academic citations.

Shofil Fikri contributed to the critical revision of the manuscript for intellectual content, especially in aligning the findings with multimedia learning theory and Arabic pedagogy. He also coordinated the editing and final proofreading process to ensure academic rigor and clarity of expression.

All authors read and approved the final version of the manuscript and agreed to be accountable for all aspects of the work.

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