

Designing an Interactive Video Based Learning Tool Using Minecraft to Enhance Arabic Reading Skills in Modern Islamic Boarding School

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ABSTRACT

Arabic language instruction has long been a priority at Islamic Modern Boarding School Darussalam Gontor For Girls Campus 3. Among the core subjects is Muthola'ah, which emphasizes reading comprehension of Arabic texts, especially for firstyear intensive students with three sessions per week. However, observations indicate a lack of student engagement and motivation, partly due to the absence of interactive learning media. To address this, the present study aims to develop a video based instructional medium utilizing Minecraft to enhance students Arabic reading proficiency. This research employs the Research and Development (R&D) method following the ADDIE model, involving needs analysis, design, development, implementation, and evaluation stages. Data were collected through interviews, tests, questionnaires, and documentation, with a quantitative analysis conducted using paired sample t tests. Findings demonstrate that the Minecraft based video significantly improves students reading skills, as evidenced by a notable increase in posttest scores. Furthermore, students responded positively to the media, highlighting its engaging nature and its capacity to make Arabic texts more accessible. The study contributes to the field of Arabic language education by integrating gamification elements into language instruction, offering a practical and innovative approach for enhancing reading comprehension in Islamic boarding school settings.

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Introduction

Education is the process of shaping an individual's personality to enable them to interact effectively and adapt to their social environment. From an Islamic perspective, education (التربية) is fundamentally based on Sharia principles, aiming to develop students' character, morality, and behavior in a holistic manner (Ismail et al., 2024). In the Indonesian context, the rapid advancement of modern technology has introduced new challenges to the

educational system, significantly transforming patterns of thinking, learning habits, and social interaction (Arifin et al., 2023). Consequently, education must serve as a central pillar in fostering individuals who are not only intellectually capable but also possess strong moral and spiritual integrity.

However, in the context of Arabic language learning in Islamic boarding schools, several specific challenges persist. Many learning practices still rely on conventional methods that tend to be teacher-centered, resulting in limited student engagement and suboptimal development of language skills, particularly in speaking (maharah kalam). In addition, the integration of interactive and technology-based learning media remains relatively low, despite its potential to enhance students' motivation and participation.

This condition highlights a significant gap between the expected outcomes of Arabic language learning and the actual instructional practices in the classroom. Therefore, it is necessary to develop and implement innovative learning strategies or media that are capable of improving students' engagement and language proficiency, especially in the modern educational context.

In order to achieve educational goals, the teaching and learning process in schools especially in contemporary Islamic boarding schools is crucial. A effective educational process depends on the constant interaction between instructors and pupils. By directing the class and employing appropriate techniques, teachers create a good learning environment (Almelhes, 2023). But the reality on the ground often shows that conventional, uninnovative teaching methods are more often used. Because Arabic language studies are an important aspect of Islamic education, students are thus less motivated and uninterested in studying (Rachmawati et al., 2020).

Modern Islamic boarding schools in Indonesia are important institutions that combine traditional Islamic subjects with modern instruction. In contrast to public schools, pesantren provides both instruction and moral and spiritual guidance. Therefore, maintaining Islamic values and providing an international education are the two responsibilities of contemporary Islamic boarding schools (Erhan, 2020). However, the disconnect between students' digital lifestyles and the conventional teaching methods that are still commonly employed in pesantren frequently makes this dual role difficult. Because it allows us to comprehend the Qur'an, Hadith, ancient writings, and other Islamic intellectual works, proficiency in the Arabic language particularly in reading is crucial in Islamic education (Ashari & Rinawati, 2024). Unfortunately, a lack of interesting learning resources and repetitious teaching methods continue to cause reading difficulties for many pupils in modern Islamic boarding schools (Arummi & Setiyadi, 2022). Students who wish to read well must develop their understanding of the context of the

text in addition to mastering vocabulary and grammar (Anis et al., 2022). Unless creative teaching strategies are used, Arabic language learning is frequently seen as challenging, dull, and unrelated to students everyday lives.

Arabic language learning in Islamic boarding schools continues to face significant challenges that hinder the achievement of learning objectives. Common issues include students' low engagement, high absenteeism, and limited reading proficiency, which remain below expected standards (Okasha, 2020). These problems are closely related to the dominance of teacher-centered instructional approaches and the limited use of interactive and technology-based learning media. In many cases, teachers lack adequate training in educational technology and have restricted access to innovative learning resources, further constraining the effectiveness of the learning process (Linur & Supriani, 2025). This situation highlights a critical gap between the demands of modern, technology-integrated learning and the current instructional practices in Islamic boarding schools, thereby emphasizing the urgent need for innovative, engaging, and contextually relevant learning strategies to improve students' Arabic reading proficiency.

In contrast, students in contemporary Islamic boarding schools tend to be more familiar with and attracted to digital-based learning environments. However, this preference is not adequately accommodated in classroom practices, creating a mismatch between students' learning needs and instructional approaches. As a result, students often experience decreased motivation, limited participation, and difficulties in comprehending Arabic texts within their linguistic, cultural, and religious contexts (Shamsuddin, 2019). This mismatch indicates the need for instructional innovation that integrates digital learning tools with pedagogical approaches, in order to create a more engaging and effective Arabic language learning environment.

Digital technology has advanced rapidly throughout the Industrial Revolution 4.0, bringing significant changes to the field of education, including language study in modern Islamic boarding schools (Setiyadi et al., 2025). One of the most recent advancements is the use of interactive videobased media and the adaption of educational games such as Minecraft to enable a more engaging and effective teaching and learning experience (Ismail et al., 2019). Learning technology media are resources or tools that support and ease the learning process by utilizing contemporary technology Teachers can assist students grasp concepts, close the gap between theory and practice, and present content in a more engaging and varied way by utilizing learning technology media (Mayer, 2003). Examples include the usage of educational gamebased applications, interactive movies, and digital platforms like Minecraft that blend enjoyment with education.

Arabic language instruction in contemporary Islamic boarding schools strategically relies on learning technology and media. This media aids in overcoming traditional issues like low learning motivation and traditional instruct (Setiyadi et al., 2022). By fostering a more engaging and contextual learning environment, technology based media particularly those that incorporate interactive films and instructional games can boost student interest and learning results (Calfee et al., 1979). Additionally, these technologies may adapt to the characteristics of Millennials and Generation Z students, who are highly habituated to the digital world, making education relevant and up to date (Andari, 2020). Therefore, selecting and developing the appropriate educational technology tools is crucial to improving learning outcomes, particularly when it comes to building reading comprehension and a solid command of Arabic.

One of the increasingly popular and widely used media by teachers from various disciplines is Minecraft, a sandbox game utilized as a learning medium to provide active, collaborative, and entertaining learning experiences, is becoming increasingly popular and widely used by teachers across disciplines (Krath et al., 2021). Minecraft can help students improve their motivation, creativity, and collaboration skill (Al-Haqbani, 2022). Minecraft Education Edition is regarded as a valuable gamification tool in Islamic education, helping to eliminate traditional, dull teaching techniques while enhancing student interest and involvement in subjects such as history (*Sirah*) and Islamic value (Ismath et al., 2022). As a result, the creation of instructional technology that combines interactive films with platforms such as Minecraft has the potential to be an innovative solution for improving reading and Arabic language comprehension skills in modern Islamic boarding schools.

However, there are still many serious problems in Arabic language learning in modern Islamic boarding schools, particularly in reading comprehension. These challenges include low student motivation, the dominance of teacher-centered instructional methods, limited use of interactive learning media, and the mismatch between students' digital preferences and conventional teaching materials (Ismail et al., 2023). As a result, students often show low engagement and encounter difficulties in understanding Arabic texts within their linguistic, cultural, and religious contexts (Awang et al., 2025). These findings indicate that integrating visual and interactive elements into the learning process can significantly improve students' learning experiences and outcomes.

Interactive digital media, such as instructional videos and educational games, have been widely recognized for their potential to enhance students' engagement and comprehension across various disciplines, including foreign language learning (Yasin et al., 2025). Interactive video-based learning, in particular, allows students to engage with content in a more contextual and visually stimulating manner, thereby improving their motivation and

understanding (Zamziba et al., 2024). Meanwhile, gamification approaches, including the use of educational games such as Minecraft, have been shown to foster students' critical thinking, creativity, and collaboration (Noor et al., 2023). These findings indicate that both visual-interactive media and game-based learning offer significant benefits in enhancing the quality of the learning process.

However, most previous studies tend to focus on a single type of instructional media, either interactive video or gamification, without adequately integrating both approaches, particularly in the context of Arabic language learning in contemporary Islamic boarding schools (Öden et al., 2021). As a result, there remains a significant research gap in developing integrated learning models that combine interactive visual elements and gamification to improve students' Arabic reading abilities in a more engaging and effective manner.

The amount of research on educational games and interactive video-based learning is expanding, although it is still dispersed. The majority of earlier studies have looked at gamification and interactive video independently, without combining the two strategies into a single teaching paradigm. Furthermore, there are still few studies that focus on Arabic reading proficiency (*maharah qirā'ah*) in contemporary Islamic boarding schools. Rather than reading comprehension as a fundamental ability in learning Arabic, many studies concentrate on motivation, inventiveness, or general linguistic abilities.

Additionally, it is uncommon to find studies using a studies and Development (R&D) strategy to create, evaluate, and test gamified learning materials and integrated interactive videos for Arabic training. There are few empirically validated learning models that support students' digital learning traits while upholding Islamic educational principles in the setting of pesantren education, where conventional teaching approaches continue to be prevalent. This suggests a glaring research deficit in the creation of technology-based, integrated learning materials intended to improve Arabic reading comprehension in contemporary Islamic boarding schools.

The current study suggests creating interactive video-based learning resources for Arabic reading teaching that are connected with Minecraft Education Edition in order to close this gap. It is anticipated that this strategy will produce a more dynamic, participative, and student-centered learning environment that fosters the growth of students' reading comprehension skills in Arabic. This study is unique in that it combines gamification and

interactive video into a single educational paradigm created especially for maharah qirā'ah in a contemporary Islamic boarding school setting.

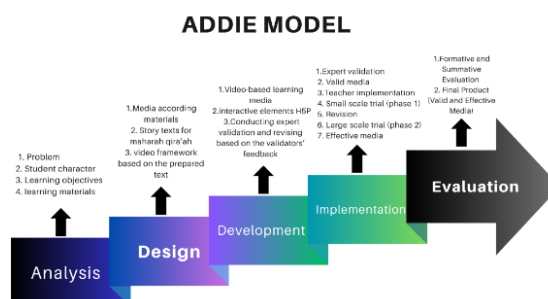
Method

Research Design

This study used a Research and Development (R&D) strategy based on the ADDIE model and a mixed-methods design. The R&D techniques used in this study included a preliminary study, planning, product development, expert validation, product revision, limited field testing, wider field testing, and final revision (Sugiyono., 2013). To assess the effectiveness of the developed learning media, a one-group pretest-posttest experimental design was used, in which the same group of students were assessed before and after the adoption of the interactive video-based learning media integrated with Minecraft Education Edition (Hardani et al., 2020).

Research and Development Procedures

Picture 1 ADDIE model of research



In the analysis stage, the researcher identified key problems in Arabic language learning, including students' low reading comprehension, limited engagement, and the lack of interactive learning media. This stage also involved analyzing students' characteristics, learning needs, and the instructional context of Islamic boarding schools. The findings from this stage served as the foundation for developing appropriate learning solutions.

In the design stage, the structure and components of the learning media were planned, including learning objectives, content organization, and the integration of interactive video and game-based elements. In the development stage, the designed media were produced using Minecraft-based interactive video, followed by expert validation and revisions. The implementation stage involved applying the media in classroom learning to observe its

effectiveness, while the evaluation stage focused on assessing the learning outcomes and overall effectiveness of the developed media through formative and summative evaluation.

Participants and Sampling Technique

The study included 34 female students from the One Intensive class of the Modern Islamic Boarding School Darussalam Gontor for Girls, 3rd Campus, Indonesia. Because the population was less than 100 pupils, total sampling was used. All students registered in the class participated in the study and met the inclusion criteria, which were active enrolment and complete involvement in the learning intervention.

Learning Media and Intervention

This study used interactive video-based materials combined with Minecraft Education Edition to teach Arabic reading (*maharah qirā'ah*). The interactive videos included Arabic reading passages, vocabulary explanations, visual illustrations, and comprehension questions to support students' understanding. In the Minecraft environment, students engaged in structured gamified learning activities designed to reinforce reading skills. These activities included exploring virtual settings such as classrooms and dormitories, locating embedded Arabic texts, completing reading comprehension tasks, matching vocabulary with objects in the environment, and solving challenges based on the content of the texts.

Students worked individually and in small groups to complete missions, such as interpreting short passages, answering questions, and interacting with virtual objects that represented key vocabulary. The teacher provided guidance and scaffolding during the activities to ensure that students could connect the virtual experience with the learning objectives. The learning intervention was conducted over four 90-minute sessions during regular Arabic classes, using lesson plans developed by the researcher to ensure consistency between the instructional materials and the in-game activities.

Research Instruments

The study employed pretest and posttest instruments to measure students' Arabic reading comprehension. The test consisted of short Arabic reading passages accompanied by multiple choice and short answer questions aligned with the learning objectives. To ensure content validity, the test items were reviewed and validated by three Arabic language experts, who assessed the relevance, clarity, and appropriateness of each item based on the instructional objectives. The validation results indicated that all items were appropriate, with minor revisions made according to expert feedback to improve clarity and alignment.

In addition, the construct validity of the instrument was examined through item analysis, ensuring that each question accurately measured students' reading comprehension skills. The reliability of the test was assessed through a pilot test conducted on a group of students with

similar characteristics ($n = 30$). The results were analyzed using Cronbach's Alpha, which yielded a coefficient of 0.81, indicating a high level of internal consistency. Therefore, the instrument was considered both valid and reliable for measuring students' Arabic reading comprehension.

Data Collection Techniques

Additional information was gathered through classroom observations, interviews, questionnaires, and documentation. The researcher performed observations to capture students' engagement and participation throughout the learning process. Semi-structured interviews were conducted with Arabic language teachers and school officials to identify learning needs and assess the usefulness of the generated medium. Questionnaires in the Likert-scale style were provided to Arabic language experts, media experts, teachers, and students to assess content validity, instructional design quality, usability, and student motivation. Documentation comprised lesson plans, curriculum materials, student attendance records, pictures, and video recordings of learning events.

This study adhered to ethical research standards involving human participants. Ethical approval was obtained from the institutional review board of the affiliated institution prior to data collection. All participants were informed about the objectives, procedures, and potential benefits of the study, and their participation was voluntary. Written informed consent was obtained from the students and school authorities. Confidentiality and anonymity were strictly maintained, and all data were used solely for academic research purposes.

Data Analysis Techniques

Descriptive qualitative analysis was used to examine qualitative data collected through observations, interviews, and open-ended questionnaire responses. The quantitative data from pretest and posttest scores were examined with SPSS version 25. Normality and homogeneity tests were carried out before hypothesis testing began. The efficiency of the learning material was assessed using a paired-sample t-test with a significance threshold of 0.05. The practicality level of the learning media based on expert validation results was computed using a percentage method, and the results were divided into five categories: very good, good, fair, poor, and very poor.

Result and Discussion

Descriptive qualitative analysis was used to examine qualitative data collected through observations, interviews, and open-ended questionnaire responses. The quantitative data from pretest and posttest scores were examined with SPSS version 25. Normality and homogeneity tests were carried out before hypothesis testing began. The efficiency of the learning material was assessed using a paired-sample t-test with a significance threshold of 0.05. The

practicality level of the learning media based on expert validation results was computed using a percentage method, and the results were divided into five categories: very good, good, fair, poor, and very poor.

Statistical analysis using SPSS 25 shows a significant improvement in students' Arabic reading proficiency following the deployment of Minecraft-based interactive video media. The descriptive statistics reveal that the mean pretest score was 3.59, with a median of 3.50 and a mode of 4. Following the intervention, the mean posttest score rose to 7.32, with a median of 7.00 and a mode of 7. This nearly twofold rise indicates a significant improvement in pupils' reading fluency and comprehension.

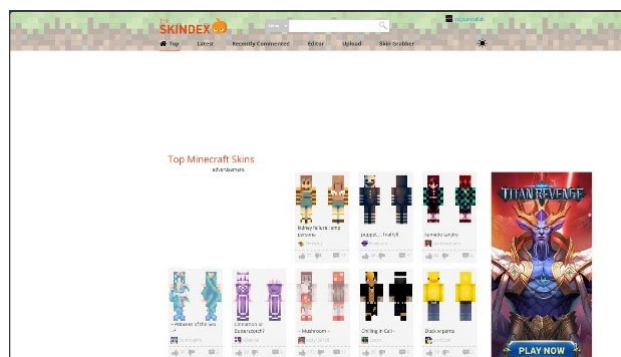
Before hypothesis testing, the data were checked for normality and homogeneity. The Kolmogorov-Smirnov test returned a significance level of 0.200 ($p > 0.05$), suggesting that the data were regularly distributed. The homogeneity test resulted in a significance value of 0.109 ($p > 0.05$), indicating that the data matched the parametric testing assumptions. The paired-sample t-test yielded a significance value (Sig. 2-tailed) of 0.000 ($p < 0.05$), showing a significant difference in pretest and posttest scores. These findings suggest that the interactive video-based learning media combined with Minecraft is successful at improving students' Arabic reading abilities.

Qualitative findings from classroom observations, interviews, and student questionnaires corroborate the quantitative findings. Observations demonstrated greater student enthusiasm and active engagement in learning sessions. Students appeared more attentive and motivated when Arabic materials were delivered in the Minecraft virtual environment rather than traditional textbooks. The game's graphic representation of things, places, and situations helped pupils connect Arabic terminology and sentence patterns to concrete surroundings.

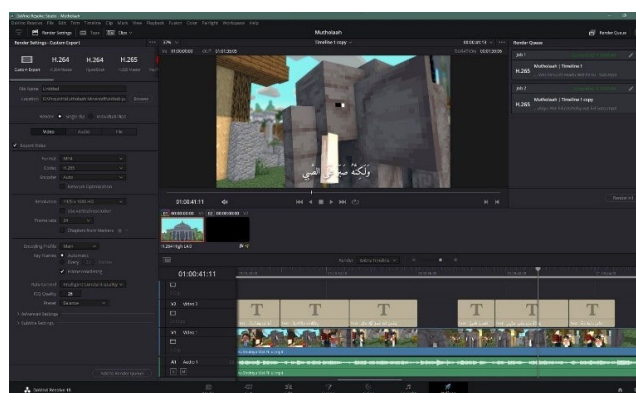
Students showed greater willingness to read Arabic texts aloud, ask questions, and engage in discussions. Many students were observed repeating new vocabulary spontaneously while pointing to relevant virtual objects displayed in the video. Teachers also reported that students were more attentive and less likely to lose concentration during lessons, even during longer reading sessions.

Teachers found the interactive video-based Minecraft media to be more effective in explaining vocabulary and reading content. Instead of giving lengthy verbal explanations, professors could draw students' attention to visual themes in the movie, making explanations more efficient and understandable. Teachers also reported that this medium helped pupils stay focused and minimized boredom, which is frequent in traditional Arabic reading instruction.

Picture 2 the process of creating characters in a story



Picture 3 The process of creating a story in a video



This study's findings give solid evidence that combining interactive video-based learning media with Minecraft Education Edition improves the engagement and effectiveness of Arabic reading instruction in modern Islamic boarding schools. These findings directly address the research question of how interactive media design can help enhance Arabic reading skills.

The considerable improvement in students' reading scores indicates that Minecraft-based interactive video media effectively enhances reading fluency and text comprehension (Ritonga et al., 2022). Unlike traditional reading instruction, which often relies on static texts and repetitive drills, this approach immerses students in a virtual environment where Arabic texts are embedded in meaningful contexts, such as school buildings, dormitories, and daily activities relevant to Islamic boarding school life. This contextualization enables students to interpret texts as meaningful representations of real-life situations rather than isolated linguistic units.

These findings are consistent with previous studies highlighting the effectiveness of digital and game-based learning environments in improving student motivation and language learning outcomes. However, this study extends prior research by demonstrating that Minecraft

can function not only as a game but also as a contextual learning environment that reflects students' lived experiences in Islamic boarding schools (Wahyudi et al., 2025). As a result, children participate in reading activities more actively and meaningfully.

From a theoretical perspective, this study contributes by integrating Multimedia Learning Theory, Constructivism (particularly Vygotsky's Zone of Proximal Development), and Gamification into a unified framework for Arabic reading instruction. This integration explains how visual-verbal representation (multimedia), social interaction and scaffolding (constructivism), and motivational engagement (gamification) collectively enhance students' reading comprehension.

Based on this integration, this study proposes a conceptual model in which Minecraft-based interactive video media serves as an instructional tool that combines visual context, interactive exploration, and game elements. These components facilitate cognitive processing, social interaction, and intrinsic motivation, which in turn lead to improved reading comprehension outcomes. The model highlights three main pathways: (1) visual and contextual input supports comprehension through dual-channel processing, (2) social interaction and scaffolding enhance understanding through guided learning, and (3) game-based elements increase motivation and sustained engagement.

The findings also support the principles of Multimedia Learning Theory, which emphasize that learning becomes more effective when verbal and visual information are presented simultaneously (Mayer, 2014). In this study, Arabic texts are consistently paired with relevant visual representations within the virtual environment, enabling students to construct stronger mental representations of vocabulary and sentence structures. This reduces cognitive load and facilitates deeper comprehension.

Furthermore, from a constructivist perspective, learning occurs through active engagement and meaningful experiences. The Minecraft environment allows students to explore, interact, and collaborate, thereby promoting knowledge construction through experience and social interaction. In line with Vygotsky's concept of the Zone of Proximal Development, teacher guidance and peer collaboration help students progress from their current level of reading ability to higher levels of comprehension.

In addition, gamification theory explains the increase in students' motivation and engagement. The integration of game elements such as challenges, exploration, and rewards transforms reading activities into meaningful and enjoyable experiences. As a result, students become more actively involved in the learning process, leading to improved reading performance.

The implications of this study are significant for Arabic language instruction in modern Islamic boarding schools. It suggests that integrating interactive video and game-based learning media can serve as an effective alternative to conventional teaching methods. However, the successful implementation of this approach requires adequate teacher training in educational technology and the integration of such media into the curriculum.

Despite its contributions, this study has several limitations, including a relatively small sample size and a focus limited to reading skills. Future research should explore the application of this approach to other language skills and examine its long-term impact on learning outcomes.

Overall, this study demonstrates that the integration of interactive video and gamification through Minecraft-based learning provides a theoretically grounded and practically effective approach to improving students' Arabic reading comprehension. It offers a new direction for developing more engaging, contextual, and meaningful Arabic language learning models in the digital era.

The effectiveness of Minecraft-based interactive video learning can be explained through Constructivism, particularly Vygotsky's Zone of Proximal Development (ZPD). Students are guided from their current level of reading ability to higher levels of comprehension through interaction with Arabic texts in a visually rich and socially interactive environment. Activities such as discussing meanings, asking questions, and collaborating with peers support deeper understanding and facilitate language acquisition. This finding reinforces the constructivist view that knowledge is actively constructed through meaningful experience rather than passively received.

Furthermore, from the perspective of Gamification, the integration of game elements such as exploration, challenges, and rewards increases students' intrinsic motivation and engagement. Reading activities are perceived as part of an interactive and enjoyable experience rather than as routine academic tasks, leading to more active participation and improved learning outcomes.

These findings have important implications for Arabic language instruction in Islamic boarding schools. The integration of interactive video and game-based learning media offers an effective alternative to traditional teaching methods and aligns with the learning preferences of digital-native students. However, its successful implementation requires adequate teacher training in educational technology and proper integration into the curriculum.

Despite its contributions, this study has several limitations, including a limited sample size and a focus solely on reading skills. Future research should involve more diverse samples,

explore other language skills, and examine the long-term impact of this approach on learning outcomes.

Furthermore, the integration of interactive video and game-based learning environments also reflects the principles of learner-centered pedagogy, where students actively construct knowledge through exploration and meaningful interaction. In this context, the use of Minecraft not only functions as a technological tool but also as a pedagogical medium that bridges abstract linguistic concepts with concrete experiential learning. This approach allows students to situate Arabic texts within authentic contexts, thereby facilitating deeper semantic understanding and long-term retention.

From a cognitive perspective, the combination of visual, textual, and interactive elements supports deeper information processing. According to Cognitive Load Theory, learning becomes more effective when instructional materials are designed to reduce unnecessary cognitive burden. In this study, the presence of visual cues and contextual environments helps students process information more efficiently by minimizing extraneous load and enhancing germane cognitive processing. As a result, students are able to focus more on meaning construction rather than merely decoding linguistic forms.

In addition, the integration of gamification elements contributes to the development of self-regulated learning. Students are encouraged to take initiative, explore learning materials independently, and persist in completing tasks due to the presence of challenges and rewards. This aligns with contemporary views on autonomous learning, where learners are not only recipients of knowledge but also active participants in their own learning process. Consequently, the use of interactive and game-based media may foster not only cognitive development but also affective and behavioral engagement.

The findings of this study also highlight the importance of contextualizing Arabic language instruction within students' real-life environments, particularly in Islamic boarding schools. By embedding learning materials into familiar settings such as dormitories, classrooms, and daily religious activities, students are able to connect linguistic knowledge with their lived experiences. This contextual approach strengthens comprehension and supports the meaningful use of language in authentic situations.

Moreover, the integration of technology in Arabic language learning should not be viewed merely as an innovation, but as a necessity in responding to the evolving characteristics of 21st-century learners. Students today are highly exposed to digital environments, which shape their learning preferences and cognitive styles. Therefore, educational practices that fail to adapt to these changes risk becoming less effective and less engaging. In this regard, the

incorporation of interactive video and gamification represents a strategic effort to align instructional practices with students needs and expectations.

Overall, this study demonstrates that the integration of interactive video and gamification through Minecraft provides a theoretically grounded and effective approach to improving students' Arabic reading comprehension, offering a promising direction for more engaging and meaningful language learning in the digital era.

Conclusion

This study demonstrates that the integration of interactive video-based learning media with Minecraft Education Edition effectively enhances students' Arabic reading proficiency (*maharah qira'ah*) in a modern Islamic boarding school context. By providing a contextualized, visual, and interactive learning environment aligned with students' digital learning preferences, the developed media significantly improved reading comprehension, vocabulary acquisition, learning motivation, and classroom engagement. The findings further support the potential of combining multimedia learning principles with gamification to create a student-centered learning environment that promotes meaningful and active reading practices.

A distinctive contribution of this study lies in the development of an instructional model that integrates interactive video and Minecraft Education Edition specifically for Arabic reading instruction in pesantren settings. Beyond improving learning outcomes, the model offers a practical approach for bridging traditional Islamic educational practices with contemporary digital learning environments. Nevertheless, the study was limited to a single institutional context and focused exclusively on reading skills. Future research should involve more diverse participant groups, extend the intervention to other Arabic language skills, and investigate its long-term effectiveness and integration within broader curriculum frameworks.

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