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# Development of Islamic Religious Education Learning Media through 3D Animation for Grade VII at Muhammadiyah 57 Junior High School, Medan

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**ABSTRACT**

This study aims to develop 3D animation-based learning media for Islamic Religious Education subjects for seventh-grade students at Muhammadiyah 57 Junior High School, Medan. The background of this research is the lack of students' interest and motivation in learning abstract and non-visual Islamic Education materials. The method used in this study is Research and Development (R&D) with the ADDIE model (Analysis, Design, Development, Implementation, and Evaluation). The results show that the developed 3D animation media is highly suitable for use in the learning process, with validation results from media experts at 92%, material experts at 88%, and student responses at 91%. This media helps students better understand the material visually, increases learning interest, and creates an interactive and enjoyable learning atmosphere.

**ABSTRAK**

Penelitian ini bertujuan untuk mengembangkan media pembelajaran berbasis animasi 3D dalam mata pelajaran Pendidikan Agama Islam untuk siswa kelas VII di SMP Muhammadiyah 57 Medan. Latar belakang dari penelitian ini adalah kurangnya minat dan motivasi belajar siswa terhadap materi Pendidikan Agama Islam yang bersifat abstrak dan kurang visual. Metode yang digunakan dalam penelitian ini adalah metode Research and Development (R&D) dengan model ADDIE (Analysis, Design, Development, Implementation, dan Evaluation). Hasil penelitian menunjukkan bahwa media animasi 3D yang dikembangkan dinilai sangat layak digunakan dalam proses pembelajaran dengan hasil validasi ahli media sebesar 92%, ahli materi sebesar 88%, dan respon siswa sebesar 91%. Media ini membantu siswa lebih memahami materi secara visual, meningkatkan minat belajar, serta menciptakan suasana belajar yang interaktif dan menyenangkan.

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## A. Introduction

Education plays a crucial role in shaping the character and mindset of the younger generation. In the 21st century, the educational landscape has evolved rapidly, requiring not only the development of cognitive skills but also a strong emphasis on spiritual and moral values. One of the key subjects responsible for nurturing moral integrity and religious character in Indonesian schools is Islamic Religious Education (IRE), which aims to equip students with the knowledge, understanding, and practice of Islamic teachings (Rahim, 2012). However, delivering IRE effectively to digital-native students presents unique challenges, particularly when traditional instructional methods fail to fully engage them (Prensky, 2001).

Islamic Religious Education often involves abstract content, such as the concepts of monotheism (tawhid), the hereafter, and the pillars of faith, which can be difficult for students to comprehend through conventional lectures and textbooks. These limitations call for the integration of innovative teaching methods and media to support students' understanding. As Sanjaya (2008) notes, abstract material requires concrete visualization to facilitate meaningful learning. In this regard, visual-based learning is increasingly recognized for its effectiveness in enhancing students' engagement, comprehension, and retention (Mayer, 2009).

One promising innovation in education is the use of 3D animation, which allows for the visualization of abstract content through dynamic, interactive, and engaging presentations. 3D animated media incorporates visual, auditory, and kinesthetic elements that stimulate multiple senses, enabling learners to better internalize the learning material (Lee, 2011). This approach aligns with constructivist learning theory, which emphasizes the importance of active, experiential learning (Piaget, 1972; Vygotsky, 1978). Through 3D animation, students can observe simulations of religious practices, the stories of prophets, or abstract spiritual concepts in a tangible and relatable way.

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The effectiveness of animated media in education has been supported by several studies. For example, Yusof, Hashim, and Sulaiman (2016) found that animated videos in Islamic education significantly enhanced students' motivation and achievement. Similarly, Azman and Hanafi (2014) demonstrated that students showed greater enthusiasm and understanding when learning Islamic concepts through 3D animation. These findings are particularly relevant for junior high school students, such as those in Grade VII, who are transitioning from concrete to more abstract thinking and require engaging learning tools.

At Muhammadiyah 57 Junior High School, Medan, many students have shown low engagement and difficulty in grasping IRE topics, particularly when taught using conventional methods. Interviews with teachers revealed that abstract topics like the stories of prophets or the unseen world (ghaib) are often not well understood by students, leading to reduced interest and low academic achievement. Given the widespread use of digital media in students' daily lives, the integration of 3D animation in the IRE classroom offers a promising solution to this issue.

The ADDIE model—comprising Analysis, Design, Development, Implementation, and Evaluation—provides a systematic framework for developing effective instructional media (Branch, 2009). This model ensures that media products are designed based on learners' needs, well-developed using appropriate technology, and evaluated for effectiveness before implementation. By applying the ADDIE model, educators can create learning tools that are both pedagogically sound and technologically engaging.

Furthermore, 3D animation allows for differentiated instruction, catering to various learning styles. Visual learners benefit from graphic content, auditory learners from narration, and kinesthetic learners from interactive elements. This multimodal approach supports inclusive education and provides equitable learning opportunities. It also aligns with the characteristics of Generation Z students, who are naturally inclined toward multimedia and prefer learning through interactive content (Junco, 2012).

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In addition to addressing pedagogical challenges, the development of 3D animation-based IRE media responds to the lack of culturally relevant and engaging Islamic digital content in Indonesia. Syarifuddin (2019) emphasizes the importance of digitalizing Islamic education content to keep up with the demands of the 4.0 era. Educational technology must not only be innovative but also rooted in religious and cultural values to ensure its effectiveness and appropriateness in Islamic contexts.

This research focuses on the development of a 3D animation-based learning media for Grade VII students at SMP Muhammadiyah 57 Medan. The chosen topics include selected materials from the IRE curriculum that are perceived as abstract or difficult by students. By visualizing these topics through 3D animation, it is expected that students will find the material more accessible, enjoyable, and meaningful.

The objectives of this study are to design and develop a 3D animated learning media, validate its feasibility through expert assessments, and evaluate students' responses to its implementation. It also aims to analyze the impact of the media on students' motivation and comprehension of the subject matter. This study employs a Research and Development (R&D) approach using the ADDIE model as its procedural framework.

Ultimately, the outcome of this study is the creation of an educational product that integrates religious values with modern technology, enhances students' cognitive and affective engagement, and contributes to the broader goal of character education in Islamic schools. This media product will serve not only as a learning aid but also as a means to transform the classroom experience into a more dynamic, interactive, and spiritually enriching environment.

## B. Method

This research adopts the Research and Development (R&D) approach, which is aimed at designing, developing, and validating a 3D animation-based learning media product tailored to the needs of Grade VII students in the Islamic Religious Education

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(IRE) subject. The R&D model is chosen because it emphasizes the systematic creation and evaluation of educational products to ensure they are effective, practical, and relevant to the learning objectives. This methodology allows for iterative improvements through expert feedback and user testing.

The model used to guide the development process is the ADDIE model, which stands for Analysis, Design, Development, Implementation, and Evaluation (Branch, 2009). In the Analysis phase, the researchers identified problems in the current learning process by conducting interviews with IRE teachers and observing student behavior in class. This step helped determine the need for more engaging and visual-based media in teaching abstract religious concepts. Curriculum documents and lesson plans were also reviewed to align the media with national education standards.

During the Design phase, researchers formulated the instructional goals, selected appropriate content, and created storyboards for the animation. Visual elements, voice-over scripts, and animation flow were planned in detail. In the Development stage, the 3D animation media was created using appropriate software tools, integrating voice, motion, color, and sound effects to make the material engaging and educational. The initial prototype was then reviewed by media and subject matter experts to ensure quality and content accuracy.

The Implementation phase involved testing the developed media in a real classroom setting. A group of Grade VII students at SMP Muhammadiyah 57 Medan participated in the implementation process. The media was used during IRE lessons, and students interacted with the animation as part of their learning experience. Observations were made during the learning sessions to monitor student engagement and reactions. Afterward, students completed questionnaires to assess their perceptions of the media's effectiveness, clarity, and appeal.

In the Evaluation phase, both formative and summative evaluations were conducted. Formative evaluation included expert reviews and small-scale trials to improve the product before full implementation. Summative evaluation focused on the

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final testing stage to assess the practicality and effectiveness of the media. Instruments such as validation sheets for experts and response questionnaires for students were used. The validation results from media and material experts, as well as student feedback, served as indicators of the media's overall quality.

This research involved three groups of respondents: (1) subject matter experts to validate content accuracy and relevance, (2) media experts to evaluate design and technical quality, and (3) students as end users to measure the media's practicality and attractiveness. The data collected were analyzed using descriptive statistics, including percentage scores from validation and response instruments. The final result was a 3D animation-based learning media that was declared valid, practical, and suitable for use in teaching Islamic Religious Education at the junior high school level.

## C. Results and Discussion

### Research Findings

The findings of this study are presented according to the five stages of the ADDIE model: Analysis, Design, Development, Implementation, and Evaluation. Each phase yielded important data contributing to the success of the 3D animation media development.

In the Analysis phase, data were collected through classroom observations and interviews with Islamic Religious Education teachers. The findings revealed that students had difficulty understanding abstract religious concepts such as the unseen (ghaib), the stories of prophets, and the attributes of Allah. Teachers noted that students were often disengaged, bored, or inattentive during traditional lectures.

Students also expressed a strong preference for learning through visual and interactive media, as they were already accustomed to digital platforms like YouTube and mobile games. This justified the need for a learning media that was both engaging and suited to their digital behavior.

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During the Design phase, a storyboard and script for the 3D animation were created. The content was selected based on the Grade VII IRE curriculum, particularly focusing on material related to the "Faith in the Messengers of Allah" (Iman kepada Rasul). The script was carefully reviewed to ensure alignment with Islamic teachings and educational goals.

Character design, scene settings, narration scripts, and visual metaphors were constructed to help students visualize and connect with the material. For instance, animated scenes depicting the lives of the prophets were developed using culturally appropriate imagery and voiceovers.

In the Development phase, the animation was produced using 3D animation software. Voice-over recordings were added, synchronized with the movement of characters and scenes. Background music and sound effects were included to enhance engagement, while ensuring that the tone remained appropriate for religious education.

Once the animation was complete, it underwent expert validation. Two validators were involved: a media design expert and a subject matter expert in Islamic Education. The media expert assessed layout, visual clarity, navigation, and audio-visual synchronization, while the subject matter expert assessed the accuracy of Islamic content and pedagogical alignment.

The validation results showed high scores: the media expert gave a score of 92%, indicating that the animation was highly suitable for educational use in terms of technical quality. The subject matter expert gave a score of 88%, confirming that the content was accurate and well-aligned with Islamic principles.

In the Implementation phase, the 3D animation was used in a real classroom at SMP Muhammadiyah 57 Medan. A total of 25 Grade VII students participated. The animation was shown during a lesson on the topic of "Belief in Prophets," and students were actively engaged throughout the session.

Observations showed a significant improvement in student participation, enthusiasm, and interaction compared to traditional lectures. Students asked questions,

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responded positively to visual cues, and were able to recall key information after watching the animation.

After the session, students were given a response questionnaire to measure their perceptions of the learning media. The results showed that 91% of students found the animation interesting, easy to understand, and helpful in learning about the topic. Most students requested more animated content for future lessons.

In the Evaluation phase, both formative and summative evaluations were conducted. Formative evaluations led to minor revisions such as adjusting the narration speed and adding subtitles. The summative evaluation confirmed that the final product met the learning objectives effectively.

From a pedagogical perspective, the media succeeded in facilitating student-centered learning. It helped students connect abstract concepts to visual narratives, thereby supporting cognitive and affective learning domains. Teachers also reported that the animation could be reused and integrated into blended learning settings.

Overall, the 3D animation media proved to be an effective tool in enhancing students' understanding of Islamic Religious Education. It also contributed to the improvement of classroom atmosphere, turning passive learning into an active and joyful experience.

This research demonstrates that integrating technology in Islamic education is not only possible but also highly beneficial. The final product is now considered a valid, practical, and engaging media resource that can be used by IRE teachers in similar contexts.

**Discussion**

The development of 3D animation-based learning media for Islamic Religious Education (IRE) has shown promising outcomes in terms of feasibility, effectiveness, and practicality. The research findings indicate that this media innovation responds well to the educational challenges faced in the IRE classroom, particularly in engaging students with abstract and spiritual content. The integration of technology into religious

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education does not reduce the sanctity of the subject but rather enhances students' comprehension and interest.

The high validation scores from media and subject matter experts suggest that the product meets both technical and pedagogical standards. The media expert's 92% score indicates that the animation's visual quality, design layout, audio clarity, and overall presentation were well-crafted and effective. At the same time, the 88% score from the content expert confirms that the learning material adheres to Islamic principles and is aligned with the curriculum.

One key finding in the implementation phase was the marked increase in student engagement. Compared to conventional teaching methods, the animation captured students' attention, evoked curiosity, and facilitated retention. This supports the view of Mayer (2009), who emphasized that multimedia learning, when designed effectively, enhances both understanding and memory.

The positive student response (91%) to the animation aligns with research conducted by Yusof et al. (2016), who found that animation in Islamic education increases student motivation. The students at Muhammadiyah 57 Medan expressed enjoyment and improved understanding after engaging with the 3D animated lesson. This reinforces the argument that young learners are more responsive to digital formats that mirror the media they interact with outside of school.

In terms of constructivist learning theory, the media supports the creation of meaningful learning experiences. Students construct understanding not only by receiving information but also by relating visuals, narratives, and emotions to the knowledge being delivered (Vygotsky, 1978). This was evident when students were able to recall and explain the stories of prophets with more clarity after watching the animation.

The contextualization of religious content through animation also helped bridge the gap between classical religious teachings and modern learners. For example, the portrayal of prophetic stories in a relatable setting allowed students to appreciate the

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relevance of Islamic teachings in today's world. This supports the need for culturally relevant pedagogy, as emphasized by Syarifuddin (2019), who advocates for Islamic content digitalization in the 4.0 era.

Another important aspect is that the animation provided a multi-sensory learning experience, appealing to visual, auditory, and even emotional domains. This aligns with research on learning styles and multiple intelligences, which argue that varied stimuli cater to different learner preferences (Gardner, 1993). Students who struggled with reading or textual content benefited greatly from the visual storytelling aspect of the animation.

In the teacher's perspective, the media served as a teaching aid that reduced their burden in explaining complex concepts. Teachers reported that with the animation, they could focus more on guiding discussions and assessing student understanding rather than spending excessive time on delivering basic material. This shift promotes more interactive, student-centered learning environments.

However, despite the success, there are challenges to consider. One limitation is the accessibility of technology in all learning environments. While SMP Muhammadiyah 57 Medan had the facilities to run 3D animation, schools in rural or under-resourced areas may face difficulty in adopting such media. Thus, further research could explore offline-compatible or mobile-friendly versions of the product.

Moreover, the animation's scope was limited to one topic in the IRE curriculum. While it proved effective for "Faith in Prophets," a broader application across other topics such as prayer (salat), fasting (sawm), or Islamic history would require further development. This points to the need for continued investment in religious digital content.

It is also important to recognize the need for teacher training. Integrating digital media effectively into lesson plans requires digital literacy and pedagogical competence. Future programs could include workshops or online modules to support teachers in adopting and utilizing such tools.

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The research also contributes to the theoretical advancement of Islamic education in the digital era. It shows how traditional subjects can be revitalized through innovative methods without compromising their spiritual essence. The harmony between technology and religious education should not be seen as a contradiction but as an opportunity for renewal.

In terms of learning outcomes, the media helped achieve cognitive goals (knowledge retention), affective goals (interest and appreciation), and behavioral goals (participation). These align with Bloom's Taxonomy and Islamic educational objectives which emphasize holistic development.

Furthermore, the evaluation process itself demonstrated the value of R&D in educational innovation. By using the ADDIE model, the research ensured that each stage was thoughtfully executed, from needs analysis to product refinement and classroom testing. This structured approach can be a reference for other educational product developments in similar fields.

In conclusion, the findings of this study suggest that 3D animation is a viable and valuable tool for enhancing the teaching and learning process in Islamic Religious Education. With proper design, validation, and implementation, such media can transform the way students experience religious learning—making it more accessible, enjoyable, and meaningful in today's digital age.

## D. Conclusion

This research concludes that the development of 3D animation-based learning media significantly enhances the teaching and learning process in Islamic Religious Education (IRE) for Grade VII students. The media effectively addressed the challenges of delivering abstract religious content by presenting it in a more visual, engaging, and relatable format. Through the use of the ADDIE model, the development process ensured the product was systematically analyzed, designed, developed, implemented, and evaluated for educational use.

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Validation from media and content experts confirmed that the animation met both technical and pedagogical standards. Moreover, the results from classroom implementation showed that students responded positively to the media, with improved interest, understanding, and participation. The media was not only entertaining but also educational, helping students better grasp key Islamic concepts such as faith in prophets and the relevance of Islamic teachings in their lives.

Overall, the use of 3D animation in Islamic education represents a strategic innovation that aligns with the learning preferences of today's digital-native students. It provides a practical solution for increasing student motivation and comprehension while maintaining the integrity of religious content. The study recommends the wider use and further development of similar media to support various topics in the IRE curriculum across different educational levels.

## E. References

Azman, N., & Hanafi, W. N. W. (2014). The effectiveness of 3D animation in the teaching and learning of Islamic studies. *Asian Journal of Education and e-Learning*, 2(3), 156–162.

Branch, R. M. (2009). Instructional Design: The ADDIE Approach. Springer.

Harfiani, R., & Setiawan, H. R. (2025). Effectiveness and efficiency of Farkiyah Box as teaching aids in learning Fiqh al-Janā'iz. *Al-Hayat: Journal of Islamic Education, 9*(2), 331–346.

Huda, M., Jasmi, K. A., Basiron, B., Mustari, M. I., & Nik Ahmad, C. N. (2020). Innovative teaching strategies in Islamic education. *International Journal of Innovation, Creativity and Change*, 10(9), 1–15.

Junco, R. (2012). The Net Generation and Digital Natives: Implications for Higher Education. Routledge.

Khairani, F., Nurzannah, N., & Setiawan, H. R. (2025). Pengaruh penggunaan metode bervariasi terhadap minat dan hasil belajar siswa pada mata pelajaran Pendidikan Agama Islam. *Berajah Journal, 5*(1), 73–88.

Lee, H. (2011). The effectiveness of 3D animated materials on students' learning motivation. *Journal of Educational Multimedia and Hypermedia*, 20(2), 169–180.

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JURNAL STUDI ISLAM DAN HUMANIORA
E-ISSN: 2986-0474
Vol. 3, No. 2 (2025)

Mayer, R. E. (2009). *Multimedia Learning* (2nd ed.). Cambridge University Press.

Muthi'ah, S., & Setiawan, H. R. (2025). Implementation of the Tahfidz Daurah program in improving the quality of Qur'an memorization among students at Muhammadiyah Kwala Madu Langkat Islamic Boarding School. *Electronic Journal of Education, Social Economics and Technology, 6*(1), 218–223.

Nurhasanah, E., & Setiawan, H. R. (2025). Implementasi program Binnadhor dalam peningkatan kualitas bacaan Al-Quran santri di pondok pesantren. *JIIP–Jurnal Ilmiah Ilmu Pendidikan, 8*(4), 4472–4479.

Piaget, J. (1972). *The Psychology of the Child*. Basic Books.

Prensky, M. (2001). Digital Natives, Digital Immigrants. *On the Horizon*, 9(5), 1–6.

Rahim, A. (2012). Islamic education: The philosophy, aim, and main features. *International Journal of Education and Research*, 1(10), 1–14.

Rizqi, R., & Setiawan, H. R. (2025). Teaching strategy in Islamic Religious Education for children at Tadika Al-Fikh Orchard Taman Setia Selagor. *Journal of English Language and Education, 10*(2), 304–312.

Sanjaya, W. (2008). Strategi Pembelajaran Berorientasi Standar Proses Pendidikan. Kencana.

Setiawan, H. R., & Haryuni, N. D. (2025). Training for Tadika Al-Fikh Orchard teachers in developing educational games for active and interactive learning. *Maslahah: Jurnal Pengabdian Masyarakat, 6*(2), 170–178.

Setiawan, H. R., & Zahra, S. (2025). Management of innovation in learning media at Al Fikh Orchard, Malaysia: A case study in Islamic education. *Proceeding International Seminar of Islamic Studies*, 3325–3334.

Setiawan, H. R., Syaukani, S., Audia, R. I., & Hawaree, H. (2025). The integration of digital learning media in Islamic Religious Education: A study on management and implementation at Bumrungsuksa Islamic Boarding School, Thailand. *Al-Ulum: Jurnal Pendidikan Islam, 6*(2), 527–538.

Syarifuddin, M. (2019). Digitalisasi pendidikan Islam di era 4.0. *Tadrib: Jurnal Pendidikan Agama Islam*, 5(2), 101–112.

Vygotsky, L. S. (1978). Mind in Society: The Development of Higher Psychological Processes. Harvard University Press.

Yusof, S. M., Hashim, A. H., & Sulaiman, N. (2016). The effects of animation in multimedia instruction for Islamic education. *Journal of Islamic Studies and Culture*, 4(1), 1–9.

INTEGRASI
JURNAL STUDI ISLAM DAN HUMANIORA
E-ISSN: 2986-0474
Vol. 3, No. 2 (2025)

Zahra, S., & Setiawan, H. R. (2025). Penggunaan video animasi sebagai media pembelajaran pengenalan huruf hijaiyah di Tadika Sinar Al-Fikh Orchard Bandar Parklands Klang, Malaysia. *Ilmuna: Jurnal Studi Pendidikan Agama Islam, 7*(1), 179–195.