

Development of Animated Video Learning Media to Improve Students' Understanding of Ablution Procedures

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ABSTRACT

This study aimed to develop and evaluate the effectiveness of animated video learning media to enhance students' understanding of ablution procedures. Utilizing the ADDIE development model, the research was conducted at Public Middle School Palopo with 25 seventh-grade students. Data were collected through interviews, documentation, expert validation, student questionnaires, and performance tests. The development process involved designing and validating the animated video, with a focus on its content, language, and media quality. Validation results indicated high validity scores: 96% for content, 88% for language, and 72% for media design. After revisions, the media was tested for effectiveness, revealing a significant improvement in students' comprehension, with an average performance score of 91.43%. The animated video successfully demonstrated detailed, systematic, and engaging representations of ablution practices, aligning with students' cognitive developmental stages and addressing the limitations of traditional teaching methods. This research emphasizes the possible use of multimedia learning tools to support religious education, particularly for practical topics that require visual demonstrations. Future studies are encouraged to explore broader applications and assess long-term retention of knowledge facilitated by such media.

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1. INTRODUCTION

Education is the main foundation in building the character and competence of the next generation of the nation (Rokhman et al., 2014). According to Law Number 20 of 2003 concerning the National Education System, education is a conscious and planned effort to create a learning atmosphere and learning process so that students actively develop their potential to have spiritual religious strength, self-control, personality, intelligence, noble morals, and skills needed by themselves, society, the nation, and the state. In this context, learning media has a very vital role in supporting the achievement of comprehensive educational goals (Hoerudin et al., 2023; Lubis et al., 2023).

The development of information and communication technology has brought significant changes in the world of education (Zhang et al., 2022). Irwansyah et al. (2017) stated that technology-based learning media can increase the effectiveness of learning by presenting information in a more captivating, interactive, and easy-to-understand way. The use of appropriate learning media can affect the quality of information delivery and the results of the learning process (Lange, C., & Costley, 2020).

Especially in Islamic Religious Education learning, the use of learning media is very important to help students understand worship practices that require visual demonstrations (Mayarisa, 2023). This is in line with the word of Allah in Q.S. An-Nahl/16:78: "And Allah brought you out of your mothers' wombs knowing nothing, and gave you hearing, sight, and conscience that you might be grateful".

The verse explains that Allah has given humans the ability to learn through the senses of hearing, sight, and conscience. This shows that using media that can optimize the function of the senses in the teaching and learning process is important (Liu et al., 2021).

Learning the procedures for ablution is one of the fundamental materials in Islamic Religious Education that requires practical and visual understanding (Manshur & Ramdlani, 2019). Islamic law guides the correct understanding and practice of ablution, a requirement for the validity of prayer. However, conventional learning that only relies on lecture methods is often less effective in providing a comprehensive understanding of the correct procedures for ablution (Nurjanah, 2024).

Barut Tugtekin and Dursun (2022) stated that animated videos have advantages in learning because they can display objects in detail and repeatedly, which can attract students' attention. Static media cannot optimally display movements and sequences, but animated video media allows for their visualization (Brucker et al., 2014; Yusuf et al., 2024). In addition, animated videos can provide a fun and non-monotonous learning experience so that they can increase students' learning motivation (Khairani et al., 2019; Parlindungan et al., 2020; Anwar et al., 2020).

Research conducted by Purnama (2021) shows that the use of animated video media in Islamic Religious Education learning can increase students' understanding by up to 78% compared to conventional methods. Similar results were also shown by research by Salsabila et al. (2023) and Sari et al. (2020), who found that animated video media was effective in improving students' learning outcomes in the material on worship practices.

Initial observations conducted at public middle school 2 Palopo revealed several issues with the ablution procedures. First, the lack of learning media used makes students less active in the learning process. Second, the learning method remains conventional, dominated by lectures, which makes students less interested in participating in the learning process. Third, some students still don't know how to wash properly, as seen when ablution is done before the Dzuhur prayer at school. Additionally, interviews with Islamic education teachers of class VII at public middle school 2 Palopo on March 15, 2024, revealed that the teachers had never used animated video-based learning media to teach ablution procedures. This is due to the limited

ability to develop innovative and captivating learning media. In fact, learning ablation procedures requires media that can show movements and sequences clearly and systematically.

Allah also said in Q.S. An-Nahl/16:44: "We sent them with clear signs and scriptures. We sent you the Qur'an to elucidate and contemplate the revelations received. This verse shows the importance of delivering material in a clear and easy-to-understand way so that it can be reflected on and practiced well. In the context of learning, this indicates the need to use media that can clarify the delivery of learning materials.

Given the importance of understanding the correct ablation procedures and the problems in learning at public middle school 2 Palopo, it is necessary to develop innovative and effective learning media. We chose animated videos as a solution due to their ability to display movements in detail, systematically, and attractively. Additionally, students can use animated videos repeatedly and access them outside of formal learning hours. Based on the background of the problem, this study aims to evaluate the effectiveness of animated video learning media to enhance students' understanding of ablation procedures at Public Middle School. We expect this research to yield valid, practical, and effective learning media that enhances students' comprehension of the correct ablation procedures.

2. METHOD

This study uses the Research and Development model, which aims to develop and evaluate the effectiveness of animated video learning media to improve the way students perform ablation in grade VII of Public Middle School 2 Palopo. Research and development is a research method used to produce certain products and test the effectiveness of these products. The development model used is the ADDIE model (Analysis, Design, Development, Implementation, and Evaluation), developed by [Branch and Varank \(2009\)](#). The ADDIE model was chosen because it has systematic stages and is suitable for the development of technology-based learning media. The following is the ADDIE model presented in Figure 1.

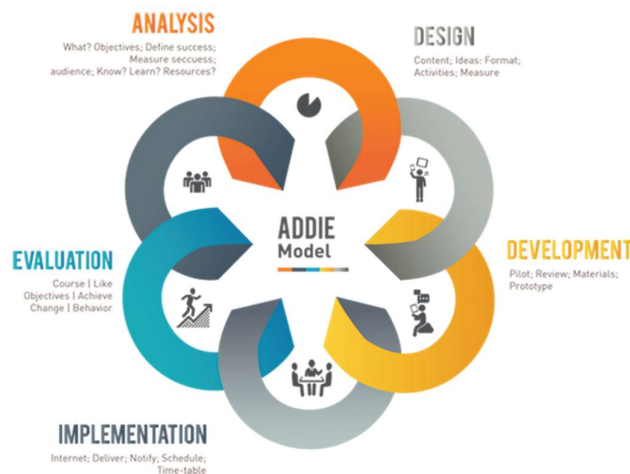


Figure 1. ADDIE Model

We conducted this research at Public Middle School 2 Palopo, located in Palopo City, during the odd semester of the 2024-2025 academic year. The subjects of the study consisted of 25 grade VII students from Public Middle School 2 Palopo, who exhibited diverse characteristics such as varying levels of academic ability, different learning interests, and distinct socio-economic backgrounds. The selection of subjects was carried out using a purposive sampling technique, based on the consideration that the class experienced problems learning how to perform ablution. The object of the study was animated video learning media developed for the material on ablution procedures in accordance with the independent curriculum in force at the school.

This study followed five steps of the ADDIE model: (1) Analysis to find out learning issues and what media is needed; (2) Design to plan the video flow, storyboards, and animation ideas; (3) Development to make the animated videos and get feedback from experts on the media, language, and content; (4) Implementation to use the media in actual lessons; and (5) Evaluation to check how effective the created media is (Branch and Varank, 2009). Data collection techniques included interviews with Islamic Religious Education teachers, documentation of learning activities, expert validation questionnaires, student response questionnaires, and tests to measure students' understanding of ablution procedures. Quantitative data from questionnaires and tests were analyzed using descriptive statistics, while qualitative data from interviews and documentation were analyzed descriptively and narratively.

3. RESULTS AND DISCUSSION

Results

This development research uses the ADDIE (Analysis, Design, Development, Implementation, Evaluation) model to produce animated videos of ablution procedures for grade VII students of public middle school 2 Palopo. At the analysis stage, it was found that students needed interesting learning media with characteristics of sound, pictures, bright colors, moving animations, and a combination of writing and background colors that were not striking. The results of the needs analysis showed that the learning process was still conventional and dependent on teachers, although the school had provided LCD and sound system facilities that were rarely used.

Curriculum analysis revealed that the school had used the Independent Curriculum, especially in grade VII, with learning objectives that focused on mastering correct ablution practices through videos, discussions, critical thinking, and implementation planning. Meanwhile, analysis of student characteristics showed that 21 grade VII students with an average age of 12–13 were at the concrete operational stage, where they paid less attention to teachers when teaching because they only used textbooks.

We carried out the design stage by designing animated videos using the Canva application, which involved selecting a background, designing animated images, and arranging the material flow. At the development stage, an animated video was produced consisting of an opening section, core material (intention of ablution, steps of ablution,

and prayer after ablution), and closing. This video then went through a validation process from three expert validators.

Three competent expert validators have validated the animated video learning media. The results of the validation by material experts showed a percentage of 96% with the category "very valid." The material expert validator provided a high assessment of the media's suitability for learning materials, the clarity of the material explanation, and the support that the media offers for those learning materials.

The media expert validation obtained a percentage of 72% with the category "valid." The assessment includes the quality of the narrative, background music, audio effects, opening video, background color, lighting, video images, color settings, animation transitions, and closing video. At the same time, the language experts gave a score of 88% and labeled it as "very valid," which looked at how well language rules were followed, the use of specific terms, the variety of language, how clear the communication was, the correctness of word choice, how well the message was conveyed, the simplicity of sentences, spelling correctness, and the consistent use of terms.

Table 1. Recapitulation of Animation Video Media Validation Results

Validators	Percentage	Category
Materials Expert	96%	Very Valid
Media Expert	72%	Valid
Linguist	88%	Very Valid

Based on the validator's suggestions, revisions were made to several aspects, including replacing the word "welcome" with "assalamualaikum warahmatullahi wabarakatuh," moving the profile to the end, slowing down the ablution animation movement, improving the writing of the word "shalat," and improving punctuation and the use of capital letters.

We conducted the effectiveness test on 21 grade VII students from public middle school 2 Palopo, assessing their ablution practices. The results showed that all students scored above the minimum completeness criteria with an average percentage of 91.43%. The assessment was based on seven aspects: intention, gargling, washing the face, washing hands to the elbows, washing ears, washing feet, and prayer after ablution. The following is presented: the effectiveness test of animated video media in Table 2.

Table 2. Results of the Effectiveness Test of Animated Video Media

Assessment Aspects	Average Score	Percentage
Intention	4,0	80%
Gargle	4,4	88%
Washing face	4,4	88%
Washing hands	4,4	88%
Washing ears	4,4	88%

Assessment Aspects	Average Score	Percentage
Washing feet	4,4	88%
Prayer after ablution	4,6	92%
Overall Average	4,57	91,43%

These results indicate that animated video learning media is effective for teaching ablution procedures, as it achieves a percentage above 80%.

Discussion

Analysis of Student Needs and Characteristics

The results of the needs analysis in this study are in line with the multimedia learning theory proposed by Mayer (2024), which emphasizes that learning will be more effective when integrating visual and audio elements simultaneously. Students' needs for media with sound, images, and animation reflect the characteristics of the digital generation, who are more responsive to multimedia stimuli (Clark & Mayer, 2010). This finding is also consistent with research by Wijaya et al. (2023) and Melati et al. (2023), which shows that junior high school students have a high preference for technology-based interactive learning media.

The characteristics of students who are at the concrete operational stage are in accordance with Piaget's cognitive development theory, which states that students aged 12–13 need concrete experiences to understand abstract concepts (Hanfstingl et al., 2019). This supports the use of animated videos that can provide concrete visual representations of ablution practices. Recent research by Sartika et al. (2020) also confirmed that junior high school students find it easier to understand religious material through visual-audio media than conventional methods.

Validity of Animation Video Learning Media

The results of the validation of animated video learning media showed a good level of validity with an overall average of 85.3%. According to Susanti et al. (2020), learning media is said to be valid if it obtains a minimum percentage of 70%, so the results of this study have met the validity criteria. The high validation score of the material expert (96%) indicates that the animated video content is in accordance with the curriculum and learning objectives, in line with the principles of instructional design proposed by Gagne et al. (2005).

The validation of the media expert who obtained a score of 72% showed that the technical aspects of the video still need improvement, especially in the quality of audio effects, opening videos, and video images. This is in line with the research of Firdaus et al. (2023), which emphasizes the importance of technical quality in digital learning media to increase student engagement. Meanwhile, the validation of the language expert with a score of 88% shows that the use of language in the video is communicative and in accordance with the level of understanding of junior high school students.

Similar research by Fitriani & Wulandari (2024) on the development of animated videos for Islamic education learning in junior high schools also showed consistent validation results, with a score of 94% for material experts, 78% for media experts, and 86% for language experts. The similarity of these results indicates that the development of animated video media for Islamic education subjects has followed excellent standards in terms of content, technical, and language validity.

Effectiveness of Animated Video Media in Learning

The results of the effectiveness test with a percentage of 91.43% indicate that animated video media is very effective in improving students' ablution practice skills. According to Looi et al. (2014), learning is said to be effective if it reaches a minimum percentage of 80%, so the results of this study are included in the very effective category. This high effectiveness can be explained through the Dual Coding Theory proposed by Paivio, where information presented in visual and verbal forms simultaneously will be easier for students to process and remember (Cuevas & Dawson, 2018).

The effectiveness of animated videos is also supported by Vygotsky's constructivist learning theory, where visual media can function as scaffolding that helps students build their understanding gradually (Smit et al., 2013; Smagorinsky, 2018). In the context of ablution learning, animated videos provide concrete models that can be imitated by students, thus facilitating the process of internalizing ablution movements and sequences.

Comparative research by Indah et al. (2024) shows that learning using animated videos is 35% more effective than conventional methods in Islamic Religious Education subjects. Likewise, a meta-analysis study by Rahman & Khoirudin (2023) on 25 studies on the effectiveness of digital learning media in religious education showed an effect size of 0.87 (large category), which confirms the findings of this study. The high score on the aspect of prayer after ablution (92%) indicates that students find it easier to memorize and understand prayers in audio-visual form. This result is in accordance with educational neuroscience research, which shows that the areas of the brain responsible for verbal and visual memory work synergistically when receiving multimedia stimuli (Schweppe & Rummer, 2014).

Theoretical and Practical Implications

The results of this study provide theoretical contributions to the development of Islamic Religious Education learning media at the junior high school level. The successful implementation of the ADDIE model in developing animated videos shows that this model is effective for technology-based learning media. Practically, this study provides an alternative learning medium that can be used by Islamic Religious Education teachers to improve the quality of learning material on worship practices.

This study also confirms the relevance of the Technology Acceptance Model (TAM) theory in the context of education, where ease of use and perceived benefits are key factors in the adoption of educational technology (Granić & Marangunić, 2019; Scherer

et al., 2019). The animated videos developed meet both of these aspects with a simple yet informative interface.

4. CONCLUSION

The research and discussions show that creating animated videos for teaching ablution procedures using the ADDIE model has successfully produced valid and effective learning materials for seventh-grade students at Public Middle School 2 Palopo. The validation process conducted by three expert validators demonstrated a good level of validity, achieving an overall average score of 85.3%. Among these, the material experts provided the highest score of 96% (very valid), followed by language experts with 88% (very valid) and media experts with 72% (valid). This learning media meets the needs of students for engaging instruction, featuring sound, images, bright colors, and moving animations that align with the concrete operational cognitive development stage of students aged 12 to 13 years. The animated video media's effectiveness test yielded very satisfactory results, scoring 91.43% in the very effective category. All students managed to attain scores above the minimum completion criteria, with the best mastery of the prayer aspect after ablution (92%) and other aspects ranging from 80 to 88%. This success confirms the theory of multimedia learning, which emphasizes that the integration of visual and audio elements can increase the effectiveness of learning. Animated video media has been proven to function as scaffolding that helps students gradually build understanding through concrete visual representations of ablution practices while utilizing the synergy of brain areas responsible for verbal and visual memory.

Further research is recommended to conduct effective tests with larger and more diverse samples covering several schools to increase the external validity of the research results. Long-term follow-up evaluations (several weeks or months) are needed to measure learning retention and the long-term effectiveness of animated video media. Future research should also integrate cost-effectiveness analysis to assess the efficiency of resource use, as well as explore other variables such as student learning motivation, individual learning styles, and teaching technology skills that can affect the effectiveness of digital learning media. In addition, the development of similar learning media can be expanded to other worship practice materials such as prayer, hajj, and umrah by utilizing more sophisticated technology such as virtual reality or augmented reality to provide a more immersive learning experience.

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