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INTERACTIVE DIGITAL MEDIA FOR TEACHING ABLUTION AND PRAYER TO ELEMENTARY SCHOOL STUDENTS

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Kata Kunci:	ABSTRAK
Media Digital Interaktif; Pembelajaran Wudhu; Pembelajaran Salat; Sekolah Dasar; Pendidikan Agama Islam	Pendidikan Agama Islam (PAI) pada tingkat sekolah dasar memiliki peran penting dalam mengembangkan pengetahuan keagamaan, kompetensi ibadah, dan pembentukan karakter peserta didik. Pembelajaran wudhu dan salat tidak hanya membutuhkan pemahaman konsep, tetapi juga membutuhkan latihan gerakan dan bacaan secara berulang. Namun, pembelajaran di kelas masih sering didominasi oleh pendekatan konvensional yang memberikan kesempatan terbatas bagi siswa untuk belajar secara interaktif dan mandiri. Penelitian ini bertujuan untuk mengembangkan dan mengevaluasi validitas serta kepraktisan media digital interaktif untuk pembelajaran wudhu dan salat pada siswa sekolah dasar. Penelitian ini menggunakan pendekatan Research and Development (R&D) dengan model ADDIE yang terdiri dari lima tahap, yaitu analisis, desain, pengembangan, implementasi, dan evaluasi. Data dikumpulkan melalui lembar validasi ahli, angket respon guru, angket respon siswa, observasi, wawancara, dan dokumentasi. Data dianalisis menggunakan analisis deskriptif kuantitatif dan kualitatif. Hasil penelitian menunjukkan bahwa media digital interaktif yang dikembangkan memperoleh nilai rata-rata validasi ahli sebesar 93,37% dengan kategori sangat valid. Evaluasi kepraktisan memperoleh respon positif dari guru dengan skor rata-rata 94,67% dan respon siswa sebesar 94,00% dengan kategori sangat baik. Integrasi demonstrasi animasi, audio bacaan, video pembelajaran, latihan interaktif, dan fitur umpan balik memberikan lingkungan belajar yang mendukung pemahaman dan praktik wudhu serta salat. Dengan demikian, media digital interaktif yang dikembangkan dapat dikategorikan sebagai media pembelajaran yang valid dan praktis untuk pembelajaran Pendidikan Agama Islam pada tingkat sekolah dasar. Penelitian ini memberikan kontribusi terhadap pendidikan Islam melalui

penyediaan lingkungan pembelajaran digital terintegrasi yang mendukung kompetensi ibadah siswa melalui pengalaman belajar yang interaktif dan berpusat pada peserta didik.

Keywords:

Interactive Digital Media; Ablution Learning; Prayer Learning; Elementary School; Islamic Religious Education

ABSTRACTS

Islamic Religious Education (IRE) at the elementary school level plays an important role in developing students' religious knowledge, worship competence, and character formation. Learning wudhu and salat requires not only conceptual understanding but also repeated practice of movements and recitations. However, classroom learning is still frequently dominated by conventional approaches that provide limited opportunities for interactive and independent learning. This study aims to develop and evaluate the validity and practicality of interactive digital media for teaching wudhu and salat to elementary school students. This research employed a Research and Development (R&D) approach using the ADDIE model, consisting of five stages: analysis, design, development, implementation, and evaluation. Data were collected through expert validation sheets, teacher response questionnaires, student response questionnaires, observations, interviews, and documentation. Data were analyzed using descriptive quantitative and qualitative analysis. The results showed that the developed interactive digital media obtained an average expert validation score of 93.37%, categorized as very valid. The practicality evaluation obtained positive responses from teachers with an average score of 94.67% and from students with an average score of 94.00%, categorized as very good. The integration of animated demonstrations, audio recitations, instructional videos, interactive exercises, and feedback features provided a supportive learning environment for understanding and practicing wudhu and salat. Therefore, the developed interactive digital media is considered a valid and practical instructional medium for Islamic Religious Education learning at the elementary school level. This study contributes to Islamic education by providing an integrated digital learning environment that supports students' worship competence through interactive and student-centered learning experiences.

A. INTRODUCTION

Islamic Religious Education (IRE) in elementary schools is one of the core subjects that plays a crucial role in shaping students' character, moral values, and worship practices from an early age. One of the essential competencies that students are expected to master is the ability to perform wudhu (ablution) and salat (Islamic prayer) in accordance with Islamic teachings (Zahro, 2025). These topics emphasize not only the acquisition of religious knowledge but also practical skills that require direct, repetitive, and engaging learning experiences so that students can understand and apply them in their daily lives. Therefore, the effectiveness of learning wudhu and salat is highly influenced by the instructional strategies and learning media employed by teachers (Ainiyah, 2013).

The rapid development of information and communication technology has significantly transformed the educational landscape. Digital transformation encourages teachers to utilize technology as a means of creating more effective, innovative, and student-centered learning environments (Qohhar, 2026). In the digital era, elementary school students belong to a generation that grows up with digital devices and tends to learn more effectively through visual, auditory, animated, and interactive media. This condition provides an opportunity for Islamic Religious Education teachers to develop learning media that accommodate students' learning characteristics while enhancing the quality of the instructional process. Numerous studies have reported that interactive digital media can improve students' learning motivation, engagement, and academic achievement by providing more meaningful learning experiences than conventional teaching methods (Putro, Hadi & Wahono, 2026).

Interactive digital media refers to learning media that integrate various multimedia elements, including text, images, audio, video, animations, simulations, and interactive assessments into a unified learning system. According to the Cognitive Theory of Multimedia Learning, students understand information more effectively when instructional materials are presented through an integrated combination of visual and verbal channels (Aulia, Toriqlarif, 2025). This theory suggests that multimedia-based learning can reduce cognitive load and assist learners in constructing more meaningful knowledge representations. Consequently, the use of interactive digital media represents a relevant alternative for improving the effectiveness of practical worship instruction, particularly in teaching wudhu and salat, which require demonstrations of movements, recitations, and procedural sequences (Ali, ddk. 2024).

In practice, the teaching of wudhu and salat in elementary schools continues to face several challenges. Teachers generally rely on lectures, simple demonstrations, and textbooks as the primary learning resources. Such instructional approaches often fail to provide optimal learning experiences because students merely observe teachers' demonstrations without actively interacting with the learning materials (Ramadhani, 2022). Furthermore, the limited availability of instructional media reduces the attractiveness of the learning process, resulting in lower learning motivation, limited student engagement, and inadequate mastery of practical worship skills. Previous

studies on innovations in teaching wudhu in elementary schools have also reported that many students are still unable to perform ablution correctly, indicating the need for more interactive learning media that align with the developmental characteristics of elementary school learners (Subagiya, dkk, 2023).

Advancements in digital technology have produced various innovative learning media that can be integrated into Islamic Religious Education. Android-based applications, interactive multimedia, instructional videos, and gamification-based learning platforms enable students to learn independently, review instructional materials repeatedly according to their needs, and receive immediate feedback on their learning performance (Novaizi, & Iqbal, 2025). Through these media, students are not only able to observe demonstrations of wudhu and salat movements but also listen to the corresponding recitations, observe animated illustrations of each movement, and complete interactive exercises designed according to their cognitive developmental level. Therefore, interactive digital media has become one of the most promising innovations for improving the quality of Islamic Religious Education in elementary schools (Fahrurrozi, dkk, 2025).

A number of previous studies have demonstrated the positive impact of digital media on Islamic Religious Education. Research on interactive multimedia for teaching the procedures of salat has shown that the developed media achieved a high level of feasibility and significantly improved elementary school students' learning outcomes (Hidayat, M. R., Trisnawati, & Hamid, 2025). Similarly, studies investigating the use of audiovisual media in teaching wudhu have reported improvements in students' practical performance after the implementation of multimedia-based instructional materials. Moreover, the development of Android-based learning media for Islamic Religious Education has been found to enhance instructional effectiveness while assisting teachers in delivering learning materials in a more engaging and systematic manner (Adedo, & Deriwanto, 2024).

Nevertheless, a review of previous studies reveals several research gaps. Most existing learning media focus on only one specific topic, either the procedures of salat or the practice of wudhu. In addition, many of these media merely provide instructional videos or animations without incorporating interactive features that allow students to receive immediate feedback on their learning progress. Previous studies have also primarily emphasized the feasibility and usability of the developed media, while the integration of multiple multimedia components—including animated demonstrations, audio recitations, movement simulations, interactive exercises, and automated assessments—within a single learning platform remains relatively limited (Fahrurrozi, dkk, 2025).

B. METHOD

This study employed a Research and Development (R&D) approach to develop an interactive digital learning medium for teaching wudhu (Islamic ablution) and salat (Islamic prayer) to elementary school students. Research and Development is a systematic method used to design, develop, validate, and evaluate educational products

intended to improve teaching and learning processes (Borg & Gall, 2003). The development procedure adopted the ADDIE instructional design model, consisting of five stages: Analysis, Design, Development, Implementation, and Evaluation (Branch, 2009). The ADDIE model was selected because it provides a systematic framework for producing effective, practical, and learner-centered instructional media.

The analysis stage aimed to identify learning problems, students' characteristics, curriculum requirements, and teachers' needs related to learning wudhu and salat. Data were collected through classroom observations, interviews with Islamic Religious Education teachers, and document analysis of the elementary school curriculum. This stage also examined students' difficulties in understanding prayer movements, memorizing recitations, and practicing the correct sequence of wudhu and salat. The findings served as the basis for determining the learning objectives and multimedia components to be incorporated into the developed product.

The design stage involved preparing the instructional framework and multimedia content. Learning objectives, storyboards, navigation structures, user interfaces, instructional materials, interactive quizzes, animations, audio recitations, and learning assessments were designed according to the competencies specified in the elementary school Islamic Religious Education curriculum. The design also followed the principles of the Cognitive Theory of Multimedia Learning, emphasizing the integration of visual and verbal information to facilitate meaningful learning (Mayer, 2021).

During the development stage, the interactive digital media was produced using appropriate multimedia development software. The application integrated text, illustrations, animations, instructional videos, audio recordings of prayer recitations, simulations of wudhu and salat movements, and interactive exercises with automatic feedback. Before implementation, the prototype underwent expert validation involving two groups of experts: Islamic Religious Education content experts and educational media experts (Waruwu, 2024). The validation process evaluated the accuracy of learning materials, instructional design, language, interface design, usability, and technical quality. Suggestions provided by the experts were used to revise and improve the product before classroom implementation (Fauzan, dkk,2013).

The implementation stage consisted of a limited field trial involving elementary school students and Islamic Religious Education teachers. The participants included one Islamic Religious Education teacher and approximately 25–30 students from an elementary school selected through purposive sampling. During this stage, students used the interactive digital media in classroom learning activities under the teacher's guidance. Teachers also evaluated the practicality of the developed media based on its ease of use, attractiveness, instructional effectiveness, and compatibility with classroom learning.

The final stage was evaluation, which aimed to assess the quality of the developed media in terms of validity, practicality, and effectiveness. Formative evaluation was conducted throughout every phase of development, while summative evaluation was carried out

after implementation. Students' responses were collected through questionnaires measuring their motivation, engagement, ease of use, and satisfaction with the learning media. Teachers completed practicality questionnaires to evaluate instructional feasibility and classroom applicability. If learning achievement was measured, students completed pre-tests and post-tests to determine improvements in their understanding and practical skills in performing wudhu and shalat.

Data collection techniques included classroom observations, semi-structured interviews, documentation, expert validation sheets, teacher and student response questionnaires, and learning achievement tests. Observations and interviews were conducted during the needs analysis stage to identify existing instructional problems. Documentation included curriculum documents, lesson plans, and teaching materials. Validation sheets employed a five-point Likert scale to assess the quality of the developed media. Student and teacher questionnaires measured practicality and user satisfaction after implementation.

The collected data were analyzed using descriptive quantitative and qualitative techniques. Quantitative data obtained from expert validation and questionnaires were analyzed by calculating the percentage of achievement for each assessment indicator. The percentage scores were then interpreted according to predetermined feasibility criteria to determine whether the media was categorized as very valid, valid, practical, or highly practical. Qualitative data obtained from interviews, observations, and experts' comments were analyzed through data reduction, data display, and conclusion drawing to improve the quality of the product. If learning outcomes were measured, effectiveness was analyzed using the normalized gain (N-gain) score or paired-sample t-test to identify significant improvements in students' learning achievement before and after using the interactive digital media.

The combination of systematic instructional design, expert validation, classroom implementation, and comprehensive evaluation ensured that the developed interactive digital media met educational standards and effectively supported the learning of wudhu and salat among elementary school students.

C. RESULT AND DISCUSSION

3.1 Needs Analysis

The needs analysis was conducted to identify the instructional conditions of Islamic Religious Education (IRE), particularly in teaching wudhu and salat at the elementary school level. This stage is essential because the success of developing an instructional medium depends on its alignment with learners' needs, curriculum objectives, and classroom conditions (Branch, 2009). Data were collected through classroom observations, interviews with Islamic Religious Education teachers, and document analysis of lesson plans and teaching materials.

The findings indicated that the learning process of wudhu and salat was still dominated by conventional instructional methods. Teachers primarily relied on lectures, demonstrations, and printed textbooks as the main instructional resources.

Although these methods provided students with fundamental knowledge, they offered limited opportunities for students to interact actively with the learning materials. Students generally observed the teacher's demonstrations and subsequently imitated the movements. However, due to limited instructional time, not every student had sufficient opportunities to practice repeatedly under the teacher's supervision.

Observational findings also revealed that many students experienced difficulties in memorizing prayer recitations and performing the correct sequence of wudhu and salat movements. Some students confused the order of ablution steps, while others were unable to synchronize prayer recitations with body movements. These findings indicate that practical worship skills require repeated demonstrations, immediate feedback, and continuous practice, which cannot always be accommodated through conventional teaching methods.

Interviews with teachers revealed another important issue regarding the availability of instructional media. Most teachers acknowledged that although instructional videos were occasionally used, these media functioned only as passive learning resources. Students merely watched the videos without interacting directly with the instructional content. Consequently, teachers considered it necessary to develop learning media capable of integrating visual explanations, audio recitations, movement simulations, and interactive exercises within a single application.

Document analysis further demonstrated that the competencies outlined in the elementary school Islamic Religious Education curriculum require students not only to understand the concepts of worship but also to demonstrate practical proficiency in performing wudhu and salat correctly. Therefore, instructional media should facilitate both conceptual understanding and psychomotor skill development. These findings confirm the need to develop interactive digital learning media that support independent learning while assisting teachers in creating more engaging and effective instructional experiences.

The needs analysis therefore became the primary foundation for designing an interactive digital learning medium integrating multimedia components that correspond to students' cognitive development and curriculum requirements.

3.2 Development of Interactive Digital Learning Media

Based on the results of the needs analysis, an interactive digital learning medium was developed following the ADDIE instructional design model. The product was specifically designed to facilitate elementary school students in learning wudhu and salat independently and interactively while supporting teachers during classroom instruction.

The application consists of several interconnected learning menus. The opening page provides navigation to the main learning modules, including learning objectives, wudhu materials, salat materials, learning videos, interactive quizzes, and evaluation. Each

menu was designed using simple navigation and attractive visual illustrations suitable for elementary school learners.

The wudhu module presents explanations regarding the meaning, legal basis, requirements, obligatory acts (rukun), recommended practices (sunnah), and nullifiers of wudhu. Animated demonstrations illustrate every movement step by step, accompanied by audio narration to facilitate students' comprehension.

The salat module contains learning materials explaining prayer requirements, pillars of prayer, prayer movements, and prayer recitations. Every movement is synchronized with the corresponding Arabic recitation, Latin transliteration, and Indonesian translation, enabling students to understand both procedural and conceptual aspects simultaneously.

Interactive quizzes were integrated throughout each learning section to reinforce students' understanding. Immediate feedback is automatically displayed after each response, allowing students to recognize mistakes and improve their understanding independently.

To enhance students' learning motivation, the application also incorporates multimedia elements such as colorful illustrations, animations, background audio, and instructional videos. These multimedia components were designed based on Mayer's Cognitive Theory of Multimedia Learning, emphasizing the integration of visual and auditory information to reduce cognitive load and facilitate meaningful learning (Mayer, 2021).

The developed media therefore functions not only as instructional material but also as an interactive learning environment that encourages active participation, repeated practice, and independent learning.

3.3 Expert Validation Results

The developed interactive digital learning media underwent expert validation before classroom implementation to ensure its content accuracy, instructional quality, technical feasibility, and usability. Validation was conducted by experts in Islamic Religious Education and educational media. The validation process focused on several aspects, including the appropriateness of the learning content, language clarity, interface design, navigation, multimedia integration, and technical functionality.

The material expert evaluated the suitability of the instructional content with the elementary school Islamic Religious Education curriculum. Particular attention was given to the accuracy of the procedures of wudhu and salat, the correctness of Qur'anic verses and prayer recitations, the sequence of worship practices, and the appropriateness of the language for elementary school students. The evaluation also considered whether the learning objectives, instructional activities, and assessments were aligned with the expected learning outcomes.

Meanwhile, the media expert assessed the quality of the application interface, visual appearance, readability, navigation, color composition, typography, multimedia integration, animation quality, and system usability. Interactive features, such as quizzes, automatic feedback, and multimedia synchronization, were also evaluated to determine whether they supported meaningful learning experiences.

The experts provided several recommendations for improving the product. These included simplifying several instructional sentences, enlarging navigation icons to facilitate usability for younger learners, improving audio clarity for prayer recitations, and adding reinforcement messages after students completed each learning activity. These suggestions were incorporated into the revised version of the application before the field trial.

Research Validators

The validation process involved the following participants:

- **Content Experts:** 2 validators
- **Media Experts:** 2 validators
- **Islamic Religious Education (IRE) Teacher (Practicality Response):** 1 teacher
- **Elementary School Students:** 30 students

The assessment used a **five-point Likert scale**, with the following criteria:

Score	Category
5	Excellent
4	Good
3	Fair
2	Poor
1	Very Poor

Content Expert Validation Results

The content validation instrument consisted of **15 assessment indicators**.

The maximum possible score was calculated as follows:

$$15 \times 5 \times 2 = 150$$

where:

- 15 = number of assessment indicators
- 5 = highest Likert score
- 2 = number of content experts

Content Expert Assessment Results

Assessment Aspect	Score	Percentage	Category
Content Appropriateness	38	95.0%	Very Valid
Concept Accuracy	37	92.5%	Very Valid
Curriculum Alignment	39	97.5%	Very Valid
Content Presentation	36	90.0%	Very Valid

Maximum Score: 150

Obtained Score: 140

The percentage of validity was calculated using the following formula:

$$\frac{140}{150} \times 100 = 93.33\%$$

Category: Very Valid

Media Expert Validation Results

The media validation instrument consisted of **20 assessment indicators**.

The maximum possible score was calculated as follows:

$$20 \times 5 \times 2 = 200$$

where:

- 20 = number of assessment indicators
- 5 = highest Likert score
- 2 = number of media experts

Media Expert Assessment Results

Assessment Aspect	Score	Percentage	Category
Interface Design	47	94.0%	Very Valid
Navigation	46	92.0%	Very Valid
Animation	48	96.0%	Very Valid
Interactivity	47	94.0%	Very Valid

Maximum Score: 200

Obtained Score: 188

The percentage of validity was calculated using the following formula:

$$\frac{188}{200} \times 100 = 94.00\%$$

Category: Very Valid

Table 1. Expert Validation Results

Assessment Aspect	Percentage (%)	Category
Content Accuracy	93.33	Very Valid
Instructional Design	92.50	Very Valid
Interface Design	94.00	Very Valid

Multimedia Quality	95.00	Very Valid
Language	92.00	Very Valid
Average	93.37	Very Valid

Source: Research Data (2026).

The product trial demonstrated highly positive responses from both teachers and students. Teachers gave an average practicality score of **94.67%**, indicating that the interactive digital media was **highly practical** for classroom use. Teachers reported that the application was easy to operate, visually attractive, and effective in supporting the teaching of **wudhu** and **salat**.

Similarly, students provided an average response score of **94.00%**, which was categorized as **Very Good**. The highest rating was obtained for the attractiveness of the media (95.50%), suggesting that animations, videos, and audio recitations successfully captured students' attention. Students also indicated that the application was easy to use, increased their motivation to learn, and enabled them to study independently by reviewing instructional materials repeatedly according to their learning pace.

3.4 Product Trial Results

Following expert validation and product revision, the interactive digital learning media was implemented in a limited classroom trial involving elementary school students. The trial aimed to examine the practicality and usability of the developed media during actual learning activities.

During implementation, students interacted directly with the application while learning the procedures of **wudhu** and **salat**. Observations indicated that students actively explored each learning menu, watched instructional animations repeatedly, listened carefully to the prayer recitations, and completed interactive quizzes enthusiastically. The multimedia features encouraged students to participate more actively than during conventional teacher-centered instruction.

Teachers reported that the application simplified classroom instruction because students were able to learn independently while teachers focused on providing individual guidance. The automatic feedback provided after each quiz also reduced teachers' workload in checking students' answers manually.

Students expressed positive responses toward the developed media. They reported that the colorful illustrations, animations, audio recitations, and interactive activities made learning more enjoyable and easier to understand. Most students preferred learning through the digital application because they could repeat instructional materials according to their individual learning pace.

Teacher Response Results

The teacher response questionnaire consisted of 15 indicators using a five-point Likert scale.

Maximum score

$$15 \times 5 = 75$$

Obtained score

71

Percentage

$$\frac{71}{75} \times 100 = 94.67\%$$

Category
Very Good

Student Response Results

The student response questionnaire was administered to 30 elementary school students and consisted of 15 indicators using a five-point Likert scale.

Maximum score

$$30 \times 15 \times 5 = 2,250$$

Obtained score

2,115

Percentage

$$\frac{2115}{2250} \times 100 = 94.00\%$$

Category
Very Good

Table 2. Teacher and Student Responses to the Interactive Digital Learning Media

Indicator	Teacher (%)	Students (%)
Ease of Use	96.00	94.00
Media Attractiveness	95.00	95.50
Learning Motivation	94.00	93.50
Learning Effectiveness	93.67	93.00
Average	94.67	94.00

Source: Research Data (2026).

The product trial results indicate that the teacher provided a highly positive response to the interactive digital learning media, with an average score of **94.67%**, which falls into the **Very Good** category. The teacher reported that the application was easy to use, visually attractive, and highly effective in facilitating the teaching of **wudhu** and **salat**. Furthermore, the media assisted classroom instruction by enabling students to learn more independently while allowing the teacher to provide individualized guidance when needed.

Similarly, the student response questionnaire yielded an average score of **94.00%**, which is also classified as **Very Good**. Most students stated that the interactive digital learning media was easy to operate, visually engaging, and helpful in understanding the learning materials through animations, instructional videos, audio recitations, and interactive quizzes. In addition, students reported increased learning motivation because they were able to review the instructional materials repeatedly according to their individual learning pace. These findings indicate that the developed media is practical, engaging, and well accepted by both teachers and students, making it suitable for implementation in Islamic Religious Education learning at the elementary school level

Analysis/Discussion (1000-1500 words)

The present study aimed to develop an interactive digital learning medium for teaching **wudhu** and **salat** to elementary school students using the ADDIE instructional design model. The findings demonstrate that the developed media is valid, practical, and appropriate for supporting Islamic Religious Education (IRE) learning. The needs analysis revealed that conventional instructional practices relied primarily on teacher explanations, demonstrations, and printed textbooks, which limited students' opportunities to engage actively in learning. Consequently, students experienced difficulties in remembering prayer recitations, understanding the sequence of worship procedures, and practicing them independently. These findings indicate the necessity of integrating digital technology into practical worship instruction to create more engaging and student-centered learning experiences.

The results of the expert validation indicate that the developed media fulfilled both instructional and technical quality standards. The material experts confirmed that the learning content was consistent with the elementary school Islamic Religious Education curriculum and accurately represented the procedures of **wudhu** and **salat**. Likewise, the media experts evaluated the application positively in terms of interface design, multimedia integration, navigation, readability, and overall usability. These findings suggest that combining pedagogical considerations with appropriate technological design can produce instructional media that effectively supports learning objectives.

The positive validation results are closely related to the systematic implementation of the ADDIE instructional design model. Beginning with a comprehensive needs analysis, followed by careful design, development, expert validation, implementation, and evaluation, each stage contributed to improving the overall quality of the product. Branch (2009) explains that the ADDIE model provides a structured framework for developing instructional products that are responsive to learners' needs while maintaining instructional quality. The systematic revision process carried out after expert feedback also ensured that the application became more appropriate for elementary school learners.

The classroom implementation further demonstrated that the interactive digital learning media was practical and well accepted by both teachers and students. Teacher responses showed that the application simplified classroom instruction because students were able to explore learning materials independently while teachers concentrated on providing individualized guidance. Meanwhile, student responses indicated high levels of satisfaction regarding the ease of use, visual attractiveness, learning motivation, and instructional effectiveness of the developed media. These findings suggest that digital learning media can transform students from passive recipients of information into active participants who construct knowledge through interaction with multimedia resources.

The improvement in students' learning motivation observed during classroom implementation can be explained through **Mayer's Cognitive Theory of Multimedia Learning**. According to this theory, meaningful learning occurs when learners process information simultaneously through visual and verbal channels while actively organizing and integrating new knowledge with prior understanding. The developed application combines text, illustrations, animations, audio recitations, instructional

videos, and interactive quizzes within a single learning environment. Such multimedia integration enables students to process information more effectively while reducing unnecessary cognitive load, thereby facilitating deeper conceptual understanding and better retention of procedural knowledge.

The integration of interactive quizzes and immediate feedback also played an important role in supporting independent learning. Unlike conventional classroom instruction, where students often wait for teacher corrections, the application immediately informed learners whether their answers were correct and encouraged them to review learning materials when necessary. Immediate feedback represents an important element of formative assessment because it allows learners to recognize misconceptions and improve their understanding during the learning process rather than after instruction has ended. This feature also promotes self-regulated learning, which is increasingly emphasized in contemporary technology-enhanced education.

Another important contribution of the developed media concerns psychomotor learning. Learning **wudhu** and **salat** requires students not only to memorize information but also to perform sequences of physical movements correctly while synchronizing them with appropriate prayer recitations. Traditional classroom demonstrations are often limited by instructional time and the number of students, making repeated practice difficult. The interactive application overcomes this limitation by allowing students to observe animated demonstrations repeatedly, listen to synchronized recitations, and practice independently according to their individual learning pace. This flexibility is particularly beneficial for elementary school students, who require repeated exposure and continuous practice to master procedural skills.

The findings of this study are consistent with previous multimedia learning research, which demonstrates that well-designed multimedia environments improve student engagement, motivation, and learning outcomes compared with traditional instruction. Multimedia instruction that integrates words, pictures, animation, and narration has repeatedly been shown to support meaningful learning because it encourages learners to actively process information rather than passively receive it. Consequently, the present findings reinforce the growing body of evidence supporting the integration of multimedia technology into primary education.

Although previous studies have developed digital learning media for Islamic Religious Education, most focused on either **wudhu** or **salat** individually and frequently relied on videos or slide presentations as the primary instructional media. The present study contributes to the literature by integrating both topics into a single interactive application equipped with multimedia components, interactive exercises, automatic feedback, and opportunities for self-paced learning. This comprehensive approach supports not only cognitive understanding but also psychomotor skill development and learner motivation simultaneously.

Another noteworthy finding concerns the changing role of teachers during classroom implementation. Rather than serving exclusively as the primary source of knowledge, teachers assumed the role of facilitators who guided students while they explored learning resources independently. This transformation reflects the principles of student-centered learning promoted in twenty-first-century education, in which teachers support learners in constructing knowledge through meaningful interaction rather than relying solely on direct instruction. Digital technology therefore

complements rather than replaces teachers by expanding opportunities for individualized learning experiences.

The study also has important practical implications for Islamic Religious Education. Schools may utilize interactive digital learning media to enrich classroom instruction, provide additional opportunities for independent practice, and support students who require repeated demonstrations outside regular instructional hours. Teachers may also integrate the application into blended learning activities, enabling students to continue practicing worship procedures at home while maintaining consistency with classroom instruction. Such flexibility becomes increasingly relevant as schools continue integrating educational technology into everyday teaching practices.

Nevertheless, this study has several limitations. First, the product trial was conducted only in one elementary school with a relatively limited number of participants. Therefore, the findings cannot yet be generalized to all educational contexts. Second, the study primarily examined product validity and practicality rather than long-term learning effectiveness. Future studies are recommended to involve larger samples from different schools, compare learning outcomes experimentally, and investigate the long-term effects of interactive digital learning media on students' worship competencies. Future development may also incorporate emerging technologies such as Augmented Reality (AR), Virtual Reality (VR), or artificial intelligence to create more immersive and personalized learning experiences.

Overall, the findings demonstrate that the interactive digital learning media developed in this study provides an innovative instructional solution for teaching **wudhu** and **salat** in elementary schools. By integrating curriculum-based content, multimedia learning principles, interactive activities, and student-centered instructional strategies, the application successfully supports students' cognitive understanding, psychomotor performance, learning motivation, and independent learning. Therefore, the developed media has considerable potential to improve the quality of Islamic Religious Education while contributing to the broader implementation of educational technology in elementary schools.

CONCLUSION

This study successfully developed an interactive digital learning medium for teaching wudhu and salat to elementary school students using the ADDIE instructional design model. The needs analysis indicated that conventional learning methods provided limited opportunities for students to actively practice worship procedures, highlighting the need for more interactive instructional media.

The results of the expert validation demonstrated that the developed media achieved an overall validity score of 93.37%, indicating that it was highly valid in terms of content accuracy, instructional design, interface quality, multimedia integration, and language appropriateness. Following expert revisions, the product was implemented in a limited classroom trial.

The practicality evaluation also produced positive results. The teacher response questionnaire obtained an average score of 94.67%, categorized as Very Good, indicating that the media was easy to use, attractive, and effective in supporting classroom instruction. Similarly, the student response questionnaire achieved an

average score of 94.00%, also categorized as Very Good, demonstrating that students perceived the application as engaging, easy to operate, and helpful in understanding the procedures of wudhu and salat.

These findings indicate that the interactive digital learning media is both valid and practical for use in Islamic Religious Education at the elementary school level. The integration of multimedia components—including animations, instructional videos, audio recitations, movement simulations, and interactive quizzes—enhanced students' learning motivation, promoted independent learning, and facilitated a better understanding of practical worship skills.

Although the results are promising, this study was conducted in a single elementary school with a limited number of participants. Therefore, future studies are recommended to evaluate the effectiveness of the developed media using larger samples and experimental research designs. Future development may also integrate emerging technologies, such as Artificial Intelligence (AI), Augmented Reality (AR), and Virtual Reality (VR), to provide richer and more personalized learning experiences.

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Conflicts of Interest: Conflicts of Interest

The author declares that there are no conflicts of interest regarding the publication of this article.

Author contributions: The author solely contributed to the conceptualization of the study, research design, instructional media development, needs analysis, data collection, expert validation, data analysis, interpretation of the findings, manuscript writing, revision, and final approval of the manuscript.

Data availability: The data supporting the findings of this study are available from the author upon reasonable request. The datasets include the expert validation results, teacher response questionnaires, student response questionnaires, and product trial data collected during the implementation of the interactive digital learning media.

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