

DEVELOPMENT OF LEARNING MEDIA BASED ON ZARKASI APPLICATION (ZAKIR CONSULTING) ABOUT MENSTRUATION AND ISTIHADHAH

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ABSTRACT

This study aimed to develop and evaluate the feasibility, practicality, and effectiveness of the Zarkasi (Zakir Consultation) application as a digital learning medium for teaching menstruation (*haid*) and irregular bleeding (*istihadhah*) in Islamic Religious Education. The study employed a Research and Development (R&D) approach using the ADDIE model, which consists of Analysis, Design, Development, Implementation, and Evaluation stages. The research was conducted at UPT SMP Negeri 27 Medan during the 2025/2026 academic year. Data were collected through interviews, observations, documentation, questionnaires, and pretest–posttest assessments. The developed application integrates learning materials, consultation services, interactive quizzes, and evaluation features to facilitate students' understanding of fiqh concepts related to *haid* and *istihadhah*. Validation results demonstrated that the application was highly feasible, with material and media expert validation scores of 89.52% and 93.30%, respectively. Practicality assessments by teachers and students also indicated very high levels of usability, with scores of 93.89% and 93.78%. Moreover, the application significantly improved students' learning outcomes, as reflected by the increase in the average score from 59.04 (pretest) to 87.96 (posttest) and an N-Gain score of 0.711 (high category). These findings indicate that the Zarkasi application is a valid, practical, and effective digital learning medium. Its novelty lies in integrating fiqh learning, interactive self-assessment, and consultation services into a single digital platform, providing a more comprehensive and student-centered learning experience than conventional learning media for menstruation and *istihadhah*.

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INTRODUCTION

Education is a fundamental aspect of human life that plays a significant role in improving the quality of human resources and determining the direction of a nation's development. Through education, individuals not only acquire knowledge but also develop the skills, attitudes, and values necessary to face various life challenges. This is in line with Law of the Republic of Indonesia Number 20 of 2003 concerning the National Education System, which states that education aims to develop learners' potential so that they become individuals who are faithful and devoted to God Almighty, possess noble character, are knowledgeable, competent, creative, independent, and become democratic and responsible citizens.

In the current digital era, education is required to adapt to the rapid development of information and communication technology. The utilization of technology in the learning process has become an unavoidable necessity because it can enhance the effectiveness, efficiency, and flexibility of learning. Furthermore, the use of technology can create more engaging and interactive learning experiences for students (Munir, 2017). Therefore, the integration of technology into learning has become one of the essential strategies for improving the quality of education.

Critical thinking skills are among the competencies that must be developed through the educational process. Students are not merely recipients of information but also active participants in constructing knowledge. An effective learning process encourages students to analyze information, solve problems, and connect knowledge with the realities of everyday life. Thus, education not only produces intellectually capable individuals but also individuals with strong character and reflective thinking abilities (Ayunda et al., 2023).

The success of the learning process cannot be separated from the role of teachers as facilitators and guides in acquiring knowledge. Salminawati (2016) explains that the learning process requires guidance from competent educators so that students can gain a correct understanding of the knowledge being studied. Therefore, teachers are expected to be capable of selecting and developing learning media that are appropriate to students' characteristics and contemporary developments.

The advancement of digital technology has brought significant changes to the educational sector, particularly in the way students obtain information and knowledge. Today's generation is more familiar with digital devices such as smartphones, tablets, and internet-based applications than with conventional learning media (Putra et al., 2024). This condition demands innovations in learning media that can accommodate the needs and characteristics of the digital generation.

In the context of Islamic Religious Education (IRE), the utilization of digital technology has great potential to improve students' understanding of complex religious materials. One of the topics requiring in-depth understanding is menstruation (*haid*) and irregular bleeding (*istihadhah*). These topics are part of the Islamic jurisprudence (*fiqh*) of purification (*thaharah*), which is directly related to the performance of various acts of worship, such as prayer, fasting, recitation of the Qur'an, and other religious practices. Misunderstanding the laws related to *haid* and *istihadhah* may lead to inaccuracies in the performance of worship by students (Johan et al., 2024).

Based on preliminary observations conducted by the researcher from October 2024 to the present at UPT SMP Negeri 27 Medan, it was found that many female students still experience difficulties in distinguishing between menstruation (*haid*), postpartum bleeding (*nifas*), and irregular bleeding (*istihadhah*). Most students obtain information from peers or internet sources whose academic validity may not be guaranteed. This condition indicates a gap between the *fiqh* materials taught at school and students' ability to understand and implement them in their daily lives.

Further observations revealed that learning applications currently available on digital platforms remain very limited in providing comprehensive discussions of *haid* and *istihadhah*. Most applications only provide information about the menstrual cycle from a health perspective without integrating *fiqh* aspects related to worship practices. Moreover, no application has been found that specifically provides materials on *haid* and *istihadhah* equipped with consultation services, interactive quizzes, and practical guidance regarding acts of worship that must be made up (*qadha*) and those that do not require *qadha*. In fact, such features are highly necessary to help students understand the material more deeply and contextually.

This condition demonstrates the need for innovative, interactive, easily accessible learning media that align with the characteristics of the digital generation. To address this need, this study developed an application-based learning medium called Zarkasi (Zakir Konsultasi). This application was designed as a learning medium containing materials on *haid* and *istihadhah*, consultation services, interactive quizzes, and various supporting features that can help students understand fiqh concepts more easily and attractively.

The development of the Zarkasi application is not only focused on technical aspects and visual appearance but also emphasizes content validity through evaluation by material experts and media experts. Therefore, the developed application is expected to achieve a high level of validity, practicality, and effectiveness so that it can be utilized as a learning medium that supports the teaching and learning process of Islamic Religious Education in schools.

The rapid advancement of digital technology has transformed learning practices across educational settings, including Islamic Religious Education (IRE). The integration of digital media into learning has become increasingly important because it enables students to access learning resources more flexibly, interactively, and independently while supporting teachers in delivering more engaging instruction (Munir, 2017). Since today's students are highly familiar with smartphones and digital applications, technology-based learning media are expected to improve both learning motivation and conceptual understanding (Putra et al., 2024).

One of the topics in Islamic Religious Education that requires comprehensive understanding is menstruation (*haid*) and irregular bleeding (*istihadhah*). These concepts constitute essential components of *fiqh al-thaharah* because they directly influence the validity of various acts of worship, including prayer, fasting, Qur'an recitation, and other religious obligations. Misunderstanding these concepts may result in incorrect religious practices among students (Johan et al., 2024). Therefore, effective learning media are needed to facilitate students in understanding these concepts accurately and contextually.

Preliminary observations conducted at UPT SMP Negeri 27 Medan from October 2024 to the present revealed that many female students experience difficulties distinguishing between *haid*, *nifas*, and *istihadhah*. Most students rely on information obtained from peers or internet sources whose reliability and conformity with Islamic jurisprudence cannot always be guaranteed. This situation indicates a gap between the fiqh concepts taught in classrooms and students' practical understanding of the material in their daily religious lives.

Several previous studies have demonstrated that digital learning media can improve students' motivation and learning outcomes in Islamic Religious Education. However, existing applications generally focus on health-related information concerning the menstrual cycle or provide basic fiqh materials without integrating comprehensive learning features. Most available applications do not combine structured learning materials, consultation services, interactive quizzes, and practical guidance regarding worship obligations related to *haid* and *istihadhah*. Consequently, students still face difficulties obtaining reliable, integrated, and contextually relevant learning resources.

This gap highlights the need for an innovative digital learning medium specifically designed to support the learning of *haid* and *istihadhah*. To address this issue, this study developed the Zarkasi (Zakir Consultation) application, which integrates fiqh learning materials, consultation services, interactive quizzes, evaluation features, and practical guidance within a single digital platform. Unlike existing learning media, Zarkasi provides students with opportunities not only to access learning materials but also to verify their understanding through self-assessment and consult questions related to menstrual jurisprudence in a more structured and interactive manner.

The application was developed using the ADDIE model and evaluated in terms of its validity, practicality, and effectiveness through expert validation, teacher and student assessments, and learning outcome tests. The novelty of this study lies in the development of a comprehensive digital learning application that combines fiqh content, consultation services, and interactive learning features specifically for *haid* and *istihadhah*, an area that remains underexplored in previous studies. Therefore, this research is expected to contribute to the development of innovative digital learning media for Islamic Religious Education while providing an effective solution to improve students' understanding of menstruation-related fiqh concepts.

This research is important due to the increasing need for digital learning resources that are accessible, accurate, and in line with technological advancements. In addition, this study is expected to contribute to the development of

digital-based learning media in Islamic Religious Education, particularly concerning the topic of haid and istihadhah, which has remained relatively limited. Therefore, this study is entitled “The Development of Zarkasi (Zakir Consultation) Application-Based Learning Media on Haid and Istihadhah at UPT SMP Negeri 27 Medan.”

METHODS

The research method used in this study is Research and Development (R&D). This method is used to produce a product while testing the feasibility, practicality, and effectiveness of the product developed (Sugiyono, 2022). The product produced in this study is in the form of learning media based on the Zarkasi application (Zakir Consultation) which is used to help students understand menstrual and istihadhah materials. The development model used is the ADDIE (Analysis, Design, Development, Implementation, Evaluation) model which consists of five stages, namely analysis, design, development, implementation, and evaluation. The ADDIE model was chosen because it has a systematic, structured procedure, and allows for continuous product improvement based on the results of evaluation at each stage of development (Destiniar et al., 2021). By using this model, the Zarkasi application is expected to meet the aspects of validity, practicality, and effectiveness so that it is suitable for use as a learning medium for Islamic Religious Education.

This research was carried out at UPT SMP Negeri 27 Medan. The selection of the research location was based on the results of initial observations which showed that there is still a low understanding of students about menstrual and istihadhah materials and the lack of application-based learning media that specifically discusses the material. In addition, this school has never been a research location with a focus on the development of application-based learning media on menstrual and istihadhah materials. The research was carried out in the odd semester of the 2025/2026 Academic Year, which is from November 2025 to January 2026.

The research and development procedure in this study refers to the ADDIE model. The first stage is analysis which aims to identify learning needs, student characteristics, and problems that occur in learning menstrual and istihadhah materials. The analysis was carried out through observation, interviews, and documentation studies of Islamic Religious Education teachers and students. The results of initial observations carried out since October 2024 show that there are still many students who have difficulty distinguishing between menstruation, puerperium, and istihadhah and understand the legal implications for the implementation of worship. In addition, there has been no digital learning media that specifically discusses the material comprehensively. Based on the results of the analysis, the researcher considers it necessary to develop application-based learning media that is easily accessible and in accordance with the characteristics of students in the digital era.

The second stage is design which is carried out by compiling the initial design of the Zarkasi application. Activities at this stage include the preparation of learning objectives, determination of materials, preparation of application flows (user flow), creation of sitemaps, design of interface (wireframe), preparation of storyboards, and preparation of research instruments. In addition, the researcher also designed various features that will be contained in the application, such as learning materials, consultations, interactive quizzes, and learning evaluations. The result of this stage is in the form of an application design or blueprint that serves as a guideline in the product development process.

The third stage is development. At this stage, the design that has been made is realized into a real product in the form of the Zarkasi application. The activities carried out include the creation of applications, the preparation of menstrual and istihadhah materials, the integration of supporting features, and the preparation of application use manuals. After the product is completed, validation is carried out by material experts and media experts to assess the quality of the content, appearance, language, and function of the application. Input and suggestions from validators are used as a basis for revisions so that products that are suitable for use in learning are obtained.

The fourth stage is implementation. At this stage, the Zarkasi application that has been declared suitable for testing for UPT students of SMP Negeri 27 Medan. The trial was carried out in Islamic Religious Education learning activities on menstrual and istihadhah materials. During the implementation process, students use the application as a learning medium, while the researcher observes the activities and responses of students during the use of the

application. In addition, students are given a pretest before using the application and a posttest after using the application to find out how to improve their understanding of the material being studied.

The last stage is evaluation. Evaluation is carried out on an ongoing basis during the development process and after product implementation. Formative evaluation is carried out at each stage of development to find out the shortcomings of the product so that it can be revised on an ongoing basis. Meanwhile, a summative evaluation was carried out after the product trial to determine the level of validity, practicality, and effectiveness of the Zarkasi application. The results of the evaluation are used as a basis for product improvement so that quality learning media is obtained and in accordance with user needs.

Data collection in this study was carried out through interviews, observations, documentation, questionnaires, and tests. Interviews were conducted with Islamic Religious Education teachers and students to obtain information about learning needs, difficulties experienced by students, and responses to the developed applications. Observations were carried out to observe students' activities while using the Zarkasi application in the learning process. Documentation is used to collect various supporting data in the form of photos of research activities, expert validation results, and other documents related to the research. The questionnaire is used to obtain data on the validity and practicality of the application based on expert assessments and user responses. The test is used to measure the effectiveness of the application through the implementation of the pretest and posttest given to students.

The research instruments used include interview guidelines, observation sheets, material expert validation sheets, media expert validation sheets, student response questionnaires, teacher response questionnaires, and pretest and posttest questions. Validation instruments are used to determine the feasibility level of the application based on expert assessments, while response questionnaires are used to determine the level of practicality of the application based on user experience. All instruments use the Likert scale with a score range of 1 to 5, namely a score of 5 for the very good category, a score of 4 for the good category, a score of 3 for the fairly good category, a score of 2 for the poor category, and a score of 1 for the very poor category.

The data obtained in this study were analyzed using quantitative and qualitative descriptive analysis techniques. The data from the expert validation results was analyzed using the validity percentage formula by comparing the total empirical score obtained with the total expected maximum score, then multiplied by 100 percent. Practicality data was obtained from the results of student and teacher response questionnaires which were analyzed using percentage techniques. The effectiveness of the application is measured based on the improvement of student learning outcomes through the comparison of pretest and posttest scores using N-Gain analysis. The results of the analysis were then interpreted based on the criteria that had been set, namely the percentage of 86%–100% in the category of very feasible, 76%–85% in the category of feasible, 56%–75% in the category of quite feasible, and ≤55% in the category of less feasible. Thus, the Zarkasi application is declared suitable for use if it obtains a percentage of at least 76% or is in the feasible category. In addition, the results of qualitative data analysis obtained through interviews and observations are used to strengthen the interpretation of quantitative data so that it can provide a more comprehensive picture of the quality and usefulness of the Zarkasi application as a learning medium for menstruation and istihadhah.

RESULTS AND DISCUSSION

This research produced a learning media based on the Zarkasi application (Zakir Consultation) on menstrual and istihadhah materials developed using the ADDIE (Analysis, Design, Development, Implementation, Evaluation) model. At the analysis stage, it was found that students still had difficulties in understanding the concepts of menstruation and istihadhah and the lack of digital learning media that discussed the material comprehensively. Therefore, the Zarkasi application was developed which contains learning materials, consultation features, and interactive quizzes to help students understand the material more easily and independently. The use of the ADDIE model in this study is in line with Branch's opinion that the ADDIE model is able to produce learning products that are systematic, effective, and in accordance with the needs of students.

The results of the feasibility test show that the Zarkasi application is in the very feasible category. The validation of material experts obtained an average percentage of 89.52%, while the validation of media experts after

revision reached 93.3%. In addition, the assessment of Islamic Religious Education teachers obtained a percentage of 93.89%, and the assessment of students reached 93.78%. These results show that the app has good material quality, an attractive appearance, an easy-to-understand language, and is easy to use in learning. These findings are in line with the research of Yuliana et al. (2022) who stated that learning media that meet the aspects of material suitability, readability, ease of use, and visual appeal will have a high level of feasibility to be applied in the learning process.

From the practical aspect, the Zarkasi application is considered very practical by teachers and students. The teacher stated that the application facilitates the delivery of material and increases student involvement in learning. Meanwhile, students found the application attractive, easy to operate, and help understand the material through consultation features and interactive quizzes. These results support Alberth's (2025) research which states that digital learning media can increase learning flexibility, facilitate access to materials, and create a more interactive and enjoyable learning experience for students.

The effectiveness of the application was measured through the One Group Pretest-Posttest design with N-Gain analysis. The results showed that the average pretest score of 59.04 students increased to 87.96 in the posttest, with a difference of 28.92 points. The N-Gain analysis yielded an average score of 0.711 or 71.1%, which is in the high and effective category. These results show that the use of the Zarkasi application is able to significantly increase students' understanding. These findings are in line with the research of Destiniar et al. (2021) which concluded that application-based learning media can significantly improve learning outcomes and student activeness. In addition, research by Pangesti et al. (2025) also shows that interactive learning media based on digital technology is able to increase learning motivation, student involvement, and achieve more optimal learning outcomes.

Based on all the results of the research, it can be concluded that the Zarkasi application (Zakir Consultation) is a very feasible, practical, and effective learning medium to be used in menstrual and istihadhah materials. The success of this application shows that the use of digital technology in Islamic Religious Education learning can be an innovative solution to improve the quality of learning and help students understand conceptual and applicative material in more depth.

CONCLUSION

Based on the results of research and development of learning media based on the Zarkasi application (Zakir Konsultasi) about menstruation and istihadhah at UPT SMP Negeri 27 Medan, it can be concluded that the Zarkasi application was successfully developed using the ADDIE model which includes the analysis, design, development, implementation, and evaluation stages. The development process is carried out systematically by considering the needs of students for menstrual and istihadhah materials, so as to produce learning media that is interactive, easy to use, and in accordance with the characteristics of students in the digital era.

The results of the feasibility test show that the Zarkasi application is in the very feasible category based on the assessment of material experts, media experts, Islamic Religious Education teachers, and students. The material presented is considered in accordance with the concept of fiqh, while the appearance, language, and application features are considered attractive, easy to understand, and support the learning process. This shows that the Zarkasi application meets the standards as a valid learning medium and can be used as a companion to Islamic Religious Education.

In addition, the Zarkasi app is proven to have an excellent level of practicality. Students can access the material flexibly through their digital devices, while teachers get the convenience of delivering material in a more interesting and varied way. The presence of material features, interactive quizzes, and consultations is able to increase student involvement and create a more active and fun learning atmosphere.

Based on the results of the effectiveness test, the Zarkasi application has also proven effective in improving students' understanding of menstrual and istihadhah materials. The increase in the average score from pretest to posttest and the acquisition of an N-Gain score of 0.711 (71.1%) which is in the high category shows that the use of applications has a positive influence on student learning outcomes. Thus, the learning media based on the Zarkasi

application (Zakir Consultation) is declared feasible, practical, and effective to be used as a companion media for learning Islamic Religious Education on menstrual and istihadhah materials.

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