

Design of an Android-Based Fiqh Learning Application

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Abstract

The development of information and communication technology (ICT) has opened up new opportunities to enhance the quality of education, including Islamic religious education. This study aims to design and develop an interactive Android-based application for Fiqh learning that aligns with the curriculum and is easily accessible to students. The research employs a Research and Development (R&D) method using a prototyping model, involving both teachers and students throughout the development stages. The results show that the application received positive feedback in terms of usability, engaging interface, and relevance of the content. The implementation in an Islamic-based school environment indicated that the application successfully increased students' interest and motivation in learning while assisting teachers in delivering Fiqh material more effectively. These findings suggest that mobile applications can serve as innovative learning tools for Fiqh in the digital era.

Keywords— Android application, Fiqh learning, educational technology, prototyping, Islamic education

INTRODUCTION

The development of information and communication technology (ICT) has had a significant impact on various aspects of life, including the field of education. The integration of ICT in education enables the learning process to become more interactive and flexible, while also providing broader access to learning resources. This aligns with Rifai (2023), who stated that the use of ICT in education has rapidly developed and is utilized as a tool to enhance educational quality and expand access for the wider community.

One form of ICT utilization in education is the use of mobile devices such as smartphones. The use of smartphones in learning provides easy access to educational materials, enhances interactivity, and supports independent learning. This is reinforced by research findings indicating that smartphone use facilitates online learning for students, as it fosters independence and allows them to seek out their own learning resources.

In the context of Islamic education, particularly in the subject of fiqh (Islamic jurisprudence), the use of technology remains relatively limited. Fiqh learning in schools or madrasahs is generally still delivered through conventional methods, such as lectures and textbooks. This can result in decreased student interest and limited opportunities for interactive and in-depth understanding of fiqh material. In fact, fiqh is a crucial branch of Islamic teachings that addresses Shariah laws applicable in daily life.

Given this situation, there is a need for innovation in fiqh learning methods that can keep pace with technological advancements without diminishing the essence of Islamic content. One proposed solution is to design an Android-based fiqh learning application. Android is chosen as the platform due to its status as the most widely used operating system globally, including in Indonesia, and its ease in facilitating the development of mobile educational applications. Previous studies have shown that developing Android-based fiqh learning media can increase students' interest and motivation in learning.

This study aims to design an interactive, user-friendly Android-based fiqh learning application that aligns with the current Islamic education curriculum. It is hoped that this

application will serve as an alternative and engaging learning medium for students, while also supporting teachers in delivering material more effectively and efficiently.

RESEARCH METHODS

This research used a Research and Development (R&D) method with a Prototyping model approach. This model was chosen because it allows developers and users to interact directly during the development process, resulting in a more tailored end result that meets user needs.

Prototyping Model Stages The prototyping model consists of several interrelated stages:

1. **Requirements Gathering** Identifying user needs through interviews, observations, and literature review related to Islamic jurisprudence (Fiqh) learning and mobile learning technology.
2. **Quick Design** Creating an initial application design, including the user interface and basic system structure.
3. **Prototype Creation** Developing an initial prototype based on the design created using the Android programming language (Java/Kotlin).
4. **Prototype Evaluation** Conducting user testing of the prototype (teachers and students) to obtain feedback and suggestions for improvement.
5. **Prototype Refinement** Making improvements and refinements to the prototype based on the evaluation results until it meets user needs.
6. **Implementation and Final Testing** Implementing the developed application in the school environment and conducting final testing to ensure its quality and functionality.

Prototyping Model Diagram

The following diagram illustrates the stages of the prototyping model:

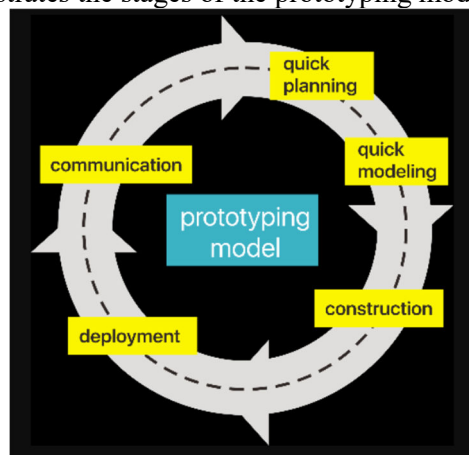


Figure 1. Prototype Model

This prototyping model allows for application development that is more responsive to user needs by directly involving them in the development process. Thus, the Android-based fiqh learning application being developed is expected to increase the effectiveness and efficiency of the learning process.

RESULTS AND DISCUSSION

Needs Assessment Results

The initial phase involved distributing questionnaires and conducting interviews with teachers and students at an Islamic school. The needs assessment results indicated that 85% of students owned Android smartphones, but there were no interactive fiqh learning media apps. Teachers also expressed difficulty conveying complex material visually and practically.

Key needs identified:

- Fiqh materials aligned with the curriculum.
- Interactive practice questions.
- Illustrations of fiqh law in the form of images or short videos.
- An attractive and user-friendly interface.

Prototype Design and Creation

- Based on these requirements, an application interface was designed consisting of:
- Main page (containing material, quizzes, and help menus),
- Material menu (containing sub-chapters such as purification, prayer, zakat, fasting, and muamalah),
- Practice menu with multiple-choice questions and answer feedback.

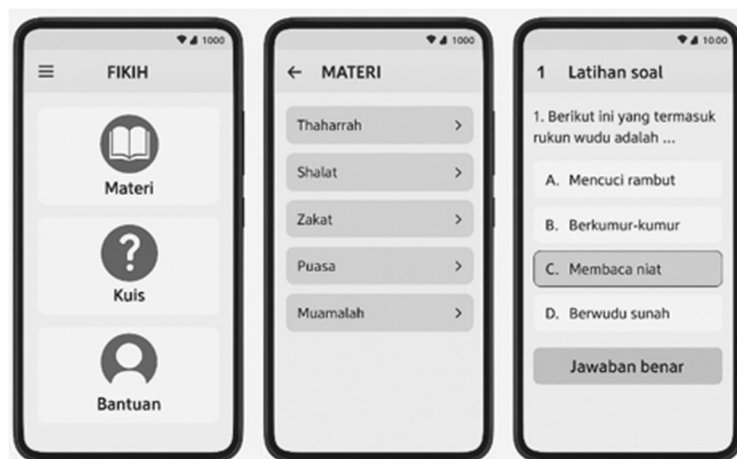


Figure 1. Prototype Design

Prototype Evaluation

- Initial trials were conducted with 10 students and 2 teachers. The evaluation results showed that:
- 90% of students found the application engaging and easy to use.
- Teachers suggested adding an explanatory video feature.

Implementation

The implementation phase is the process of applying the application development results to a real-world user environment, in this case, an Islamic-based school. The refined fiqh learning application is then installed on students' and teachers' Android devices for use in direct teaching and learning activities. Implementation is carried out with guidance to ensure users understand the function of each available feature. This phase also includes observations of user response, application effectiveness, and any technical issues encountered during use. These implementation results serve as the basis for further evaluation to continuously improve the application's quality. With the implementation of this application, it is hoped that the fiqh

learning process will become more engaging and interactive, and will enhance students' understanding of Islamic material in a practical way.



Figure 4. Main Menu Display



Figure 6. Instructions Page



Figure 7. Introduction Page



Figure 8. KD and Indicator Page



Gambar 9. Halaman Materi



Gambar 10. Halaman Video



Gambar 11. Halaman Soal Latihan

To determine the effectiveness and response to the use of an Android-based fiqh learning application, several key aspects were evaluated from the perspectives of students and teachers. The results of this implementation are presented in Table 1 below.

Table 1. Results of the Implementation of the Android-Based Fiqh Learning Application

No	Rated aspect	Student Response (%)	Teacher Response (%)	Information
1	Ease of use of the application	90%	100%	The majority of users find the app easy to use.
2	Attractive and interactive display	85%	90%	The design is considered attractive by users
3	Suitability of material with curriculum	88%	95%	The material is considered relevant to the standards of fiqh learning.
4	Clarity of questions and feedback	80%	85%	Some questions need to have their text simplified.
5	The need for multimedia features	70%	100%	It is recommended to add a video explaining the material.
6	Increasing students' interest in learning	92%	90%	The application is considered capable of increasing students' motivation in learning.

Based on the results in Table 1, it can be concluded that the Android-based fiqh learning application received a positive response from users, both students and teachers. Several suggestions, such as the addition of multimedia features, can serve as a basis for further development to improve the quality of learning.

CONCLUSION

This study concludes that the utilization of information and communication technology (ICT), particularly through Android-based mobile devices, holds significant potential in improving the quality of fiqh learning in Islamic-based schools. The fiqh learning application developed using a Research and Development (R&D) approach with a prototyping model has been successfully designed to meet the needs of both teachers and students. This application contains fiqh materials aligned with the curriculum, is equipped with interactive practice questions, features an attractive user interface, and is easily accessible via smartphones. Evaluation results show that the majority of users gave positive responses regarding ease of use, visual design, and content relevance. Furthermore, the application has been proven to increase students' interest and motivation in learning. Its implementation in school environments also indicates that the application can support the teaching and learning process more effectively and efficiently. Therefore, the development of an Android-based fiqh learning application can serve as an innovative solution for delivering Islamic education that is interactive, practical, and in line with technological advancements.

SUGGESTION

Based on the research and implementation of the Android-based fiqh learning application, it is recommended that the application be developed further, taking user feedback into account, particularly in terms of adding multimedia features such as explanatory videos that can enrich student understanding. Furthermore, it is important for developers to continually refine the interface design to make it more responsive and user-friendly, particularly for questions with lengthy text. For continued use, schools and teachers are expected to utilize this application as a supplementary learning medium integrated with classroom teaching and learning activities. Future research can also expand the scope of the study by involving more schools and students from diverse backgrounds to measure the application's effectiveness more broadly and in-depth.

BIBLIOGRAPHY

- Rifai, M. (2023). *Pemanfaatan TIK dalam Dunia Pendidikan*. Jakarta: Pustaka Edukasi.
- Setiawan, A., & Lestari, D. (2022). Penggunaan Smartphone dalam Proses Pembelajaran Online. *Jurnal Pendidikan Digital*, 10(2), 112–120.
- Sutrisno, H. (2021). *Media Pembelajaran Interaktif untuk Pendidikan Agama Islam*. Bandung: Literasi Nusantara.
- Wijaya, R. (2020). Model Pengembangan Prototyping dalam Aplikasi Edukasi. *Jurnal Teknologi Pendidikan*, 8(1), 45–52.
- Zulfa, N. (2021). Aplikasi Android sebagai Media Alternatif Pembelajaran Fikih. *Jurnal Inovasi Pendidikan Islam*, 6(3), 88–97.
- Hamzah, B. (2020). *Strategi Inovatif dalam Pengembangan Media Pembelajaran*. Yogyakarta: Deepublish.
- Munir. (2017). *Pembelajaran Digital: Pengembangan Kurikulum Berbasis Teknologi Informasi dan Komunikasi*. Bandung: Alfabeta.
-

Fatimah, S. (2022). Pemanfaatan Aplikasi Mobile dalam Pembelajaran Agama Islam di Sekolah Menengah. *Jurnal Teknologi dan Pendidikan Islam*, 4(2), 101–110.

Arsyad, A. (2019). *Media Pembelajaran*. Jakarta: RajaGrafindo Persada.

Nugroho, Y. (2021). Pengembangan Aplikasi Mobile untuk Pendidikan Dasar. *Jurnal Informatika dan Pembelajaran*, 9(1), 55–64.