

TECHNOLOGICAL INNOVATION IN LEARNING THE QURAN THROUGH ANDROID APPLICATIONS IN UMMI METHOD LEARNING MANAGEMENT ON THE GHOROIBUL QUR'AN MATERIAL

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Abstract

The use of application-based digital media provides a solution to the problem of limited teacher and student access to Ghoroibul Qur'an text and audio materials that have been distributed unstructured through WhatsApp and YouTube. This application is designed to be accessible offline and integrated with the Ummi curriculum, thereby increasing learning efficiency, student independence, and assisting teachers in the planning, implementation, and evaluation of learning. This study aims to identify teacher and student obstacles in the learning process and recommend an innovative model of Android application-based learning media as an alternative solution. This study uses a descriptive qualitative approach with data collection techniques through observation, interviews, and documentation. The results show that the developed application acts as an innovative media that combines text and audio materials in one platform, can be accessed without an internet connection, and is designed to meet field needs. This recommendation is considered innovative in supporting more efficient, standardized, and relevant learning management to the development of technology-based Islamic education in the digital era.

Keywords: *Technological Innovation, Learning Management, Ghoroibul Qur'an, Ummi Method, Android Application, Al-Qur'an Education.*

Abstrak

Penggunaan media digital berbasis aplikasi menjadi solusi dari permasalahan terbatasnya akses guru dan siswa terhadap materi teks dan audio Ghoroibul Qur'an yang selama ini tersebar tidak terstruktur melalui WhatsApp dan YouTube. Aplikasi ini dirancang agar bisa diakses secara offline dan terintegrasi dengan kurikulum Ummi, sehingga mampu meningkatkan efisiensi pembelajaran, kemandirian siswa, serta membantu guru dalam proses perencanaan, pelaksanaan, dan evaluasi pembelajaran. Penelitian ini bertujuan untuk mengidentifikasi kendala guru dan siswa dalam proses pembelajaran, serta merekomendasikan model inovasi media pembelajaran berbasis aplikasi Android sebagai solusi alternatif. Penelitian ini menggunakan pendekatan kualitatif deskriptif dengan teknik pengumpulan data melalui observasi, wawancara, dan dokumentasi. Hasil penelitian menunjukkan bahwa aplikasi yang dikembangkan berperan sebagai media inovatif yang menyatukan materi teks dan audio dalam satu platform, dapat diakses tanpa koneksi internet, dan dirancang sesuai kebutuhan lapangan. Rekomendasi ini dinilai inovatif dalam mendukung manajemen pembelajaran yang lebih efisien, terstandar, serta relevan dengan perkembangan pendidikan Islam berbasis teknologi di era digital.

Kata Kunci: *Inovasi Teknologi, Manajemen Pembelajaran, Ghoroibul Qur'an, Metode Ummi, Aplikasi Android, Pendidikan Al-Qur'an.*



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INTRODUCTION

In the past two decades, the world has undergone major transformations in various sectors of life due to the rapid development of digital technology, including in the realm of education. Technology is no longer seen merely as a tool, but has become an integral part of the teaching and learning process, influencing how teachers deliver material, how students access learning resources, and how educational institutions design their learning systems. 21st-century education demands an integration of academic abilities, digital age skills, and technological literacy, enabling students to adapt to rapid change.¹ In this context, the world of education is required not only to adopt technology, but also to carry out continuous innovation so that learning becomes more contextual, flexible, and responsive to the needs of today's students.

Developments in information and communication technology (ICT) have also had a significant impact on religious education, including Quranic education. On the one hand, technology presents significant opportunities to expand the reach of religious learning through digital platforms such as learning apps, interactive videos, and social media.² However, on the other hand, new challenges have emerged, such as the digital divide, a lack of technological literacy among educators, and concerns about content inconsistent with Islamic values. In facing these challenges, Islamic education is required to remain adaptive to current developments while maintaining the authenticity of sharia values. Azyumardi Azra stated that advanced Islamic education is one that integrates transcendental values with contemporary scientific and technological approaches without losing its religious substance.³ Therefore, innovation in technology-based learning is a necessity in Islamic education today, an effort to answer the needs of the times while maintaining the quality and noble values of Islamic education itself.

Learning the Quran is a fundamental aspect of Islamic education, especially at the elementary level. Childhood is the golden age of cognitive, affective, and psychomotor development, where all forms of habituation and instillation of values are firmly embedded and have a lasting impact. Therefore, introducing and learning the Quran from an early age is not only a moral responsibility but also strategic in shaping a generation of Muslims who are literate in the Quran and possess noble morals. The skill of reading the Quran correctly and properly serves as the primary foundation before students enter more advanced stages, such as understanding its meaning and memorizing its contents.

¹ Bernie Trilling and Charles Fadel, *21st Century Skills: Learning for Life in Our Times* (John Wiley & Sons, 2009).

² Ais Isti'ana, "Integrasi Teknologi Dalam Pembelajaran Pendidikan Islam," *Indonesian Research Journal on Education* 4, no. 1 (2024): 1, <https://doi.org/10.31004/irje.v4i1.493>.

³ Azyumardi Azra, *Pendidikan Islam: Tradisi dan Modernisasi Menuju Milenium Baru* (Logos, 1999).

However, in practice, learning the Quran still faces quite complex challenges, especially in aspects related to the rules of reading the Quran with ghorib. The material of Ghoroibul Quran is part of the science of tajwid that discusses the lafadz lafadz that are not common, rarely found in the Quran, and require special attention in pronunciation and understanding. The characteristics of this reading often cause difficulties for students due to its unfamiliar and complex nature, both in terms of phonetics, letter structure, and the accompanying tajwid rules.⁴ Therefore, this material requires not only the right teaching method, but also supporting media that can help students to understand and master it gradually. In practice in the field, the learning process of Ghoroibul Qur'an still faces a number of obstacles, both at the teacher and student level. One of the main obstacles that arises is limited access to audio learning media, which is a crucial element in understanding the characteristics of ghorib lafadz-lafadz that require accurate commentary and reading tone.

For teachers, these limitations directly impact the effectiveness of lesson planning. While they are required to deliver material accurately according to the Ummi method standards, access to the necessary audio samples remains suboptimal. Distributing audio files via WhatsApp, for example, often presents technical challenges: files get lost among messages, are difficult to retrieve, and are prone to deletion or overwriting. As a result, teachers waste time re-managing the same material, and preparation becomes inefficient and not fully standardized.

On the student side, issues that arise relate to limited access and motivation for independent learning. When students need to repeat the recitation of the ghorib verses at home, they struggle to find the audio files sent by the teacher. Not all students have adequate digital devices or a stable internet connection to open links from YouTube or download audio files from WhatsApp. This not only hinders the learning process but also leads to low student confidence in reciting the ghorib verses in class. In the long term, these obstacles impact the quality of student recitation and the overall effectiveness of teachers' teaching.

These issues demonstrate a gap between learning needs and available media. Therefore, a more systematic, structured, and easily accessible solution is needed for all parties, including teachers, students, and parents. Against this backdrop, the development of an Android-based Ghoroibul Qur'an learning application, which can be recommended, is highly relevant and urgent as part of learning management innovation in the digital age.

⁴ Jalaluddin Al-Suyuthi, *Al-Itqan fi 'Ulum al-Qur'an*, Jilid 2 (Dar al-Kutub al-'Ilmiyyah, 2003).

Previous Research

In previous research, Rosadi and Mulyawan⁵ developing a multimedia-based Quran learning application that aims to facilitate Muslims in learning the science of tahsin, including the rules of tajweed reading, introduction to gharibah verses, procedures for waqf, and identification of common errors in reading the Quran. This research has similarities with the research being developed, namely both using the Android platform to improve the quality of Quran learning through a digital approach.

Research conducted by Muhammad Iqbal Hanafri, Muchamad Iqbal, and Chika Andriyani Gumay Santi⁶ produced an Android-based Quran learning application designed to help elementary school students and the general public memorize selected chapters of the Quran and understand the rules of tajweed contained therein. Similarities with this research lie in the use of the Android platform and focus on interactive Quran learning that supports independent learning.

Research conducted by Ahmad Sauqi and Himawan⁷ developed an Android-based Quran learning application that uses the Iqra method as an approach to teaching Quran reading for children aged 5–12 years. This research shares similarities with ongoing research on the use of mobile technology and interactive approaches to support independent Quran learning.

Research conducted by Aso Sudiarjo, Arnie Retno Mariana, and Wahyu Nurhidayat⁸ produced an Android-based learning application that contains materials on tajweed, waqf, and makharijul huruf, with the aim of making it easier for Muslims, especially children, to learn and apply the correct reading of the Qur'an according to the rules. The similarity of this research with the research being developed lies in the use of Android technology as an interactive tajweed learning medium, as well as the same goal of improving the ability to read the Qur'an properly and correctly.

Research conducted by Firman Tawakal, Deasy Wahyuni, and Aldisyah⁹ developed an Android-based Iqro' learning application that aims to help users, especially children, in learning the hijaiyah letters and their pronunciation in tartil with correct makhraj and tajwid. However, there are differences in the focus and depth of the material, the Tawakal et al. application emphasizes the initial stage of learning to read the Qur'an through the Iqro' method, while this study discusses the

⁵ D. Rosadi and A. Mulyawan, "Aplikasi Pembelajaran Al-Qur'an Dalam Kajian Ilmu Tahsin Berbasis Multimedia," *Jurnal Computech & Bisnis (e-Journal)* 15, no. 2 (2021).

⁶ M. I. Hanafri et al., "Aplikasi Pembelajaran Menghafal Surat-Surat Pilihan Al-Qur'an Untuk Sekolah Dasar Berbasis Android," *Academic Journal of Computer Science Research* 1, no. 1 (2019).

⁷ A. Sauqi and Himawan, "Aplikasi Belajar Mengaji Berbasis Android," *Jurnal Maklumatika*, 2020, 90–99.

⁸ A. Sudiarjo et al., "Aplikasi Pembelajaran Ilmu Tajwid, Waqaf Dan Makharijul Huruf Berbasis Android," *Jurnal Sisfotek Global* 5, no. 2 (2015).

⁹ F. Tawakal et al., "Aplikasi Pembelajaran Iqro' Sebagai Sarana Membaca Al-Qur'an," *Informatika* 12, no. 2 (2020), <https://doi.org/10.36723/juri.v12i2.227>.

development of a more specific application, namely Ghoroibul Qur'an learning based on the Ummi Method.

Research conducted by Alsharbi, Mubin, and Novoa¹⁰ developed a reinforcement learning-based simulator for Qur'an and Islamic education aimed at non-Arab children. This study has differences in approach and objectives. Alsharbi et al. utilized artificial intelligence in the form of reinforcement learning for non-Arab children's learning in general, while this study focuses on discussing the development of an Android application for Ghoroibul Qur'an learning using the Ummi Method approach with standard text and audio pronunciation features aimed at users who have entered the advanced stage of tajwid learning.

Research by Bashir et al.¹¹ presents a systematic review of the application of Natural Language Processing (NLP) in Qur'anic research, with a focus on developing technology to understand, analyze, and present the contents of the Qur'an through a computational approach. The similarity with this study lies in the effort to utilize technology to improve Qur'anic learning. However, the approach is different. Bashir et al. emphasized the development of NLP-based tools for linguistic studies and large-scale data processing, while this study focuses more on discussing the development of an Android-based Ghoroibul Qur'an learning application with the Ummi Method approach, which emphasizes teaching the pronunciation of gharib readings practically and interactively through standardized text and audio.

Considering these previous studies, this research is expected to contribute to the development of Islamic learning management studies and the use of digital media in Quranic education. This research can also enrich the literature on advanced learning materials such as Ghoroibul Qur'an, which has so far been rarely discussed. Meanwhile, in practice, the results of this study can serve as a reference for teachers, schools, and application developers in creating learning media that are appropriate to field needs. It is also hoped that the developed media can be adopted by other Islamic educational institutions facing similar challenges, thereby strengthening the quality of Quranic literacy for the Muslim generation in the digital era.

RESEARCH METHODS

This research uses a descriptive qualitative approach, aiming to understand and describe in-depth the phenomenon of innovation management in Quranic learning through the Android-based Ghoroibul Qur'an learning application using the Ummi method. This approach allows researchers

¹⁰ B. M. Alsharbi et al., "Quranic Education and Technology: Reinforcement Learning System for Non-Native Arabic Children," *Procedia Computer Science* 184 (2021): 306–13, <https://doi.org/10.1016/j.procs.2021.04.007>.

¹¹ M. H. Bashir et al., "Arabic Natural Language Processing for Qur'anic Research: A Systematic Review," *Artificial Intelligence Review* 56, no. 7 (2023): 6801–54, <https://doi.org/10.1007/s10462-022-10313-2>.

to explore the experiences, perceptions, and interactions of educational stakeholders. According to Moleong,¹² Descriptive qualitative research is research that aims to understand the phenomena experienced by the research subjects in a comprehensive manner, which produces descriptive data in the form of written or spoken words.

Furthermore, a descriptive qualitative approach allows researchers to identify factors influencing the success or obstacles in implementing the learning application. By understanding the context and dynamics occurring in the field, researchers can provide more precise and relevant recommendations for future application development and improvement. This aligns with the goal of qualitative research to generate a deep and contextual understanding of the phenomenon under study.¹³

Thus, a descriptive qualitative approach provides an appropriate framework for exploring and comprehensively understanding the management of Qur'an learning innovation through the Android-based Ghoroibul Qur'an application using the Ummi method. This approach allows researchers to explore the experiences, perceptions, and interactions of educational actors in their natural contexts, thereby generating meaningful and beneficial findings for the development of Islamic education in the digital era.

RESULTS AND DISCUSSION

Interpretation of Teacher and Student Constraints

Based on the results of interviews and observations conducted at MI Integral Al-Ukhuwwah, it was found that the Ghoroibul Qur'an learning process using the Ummi Method still faces several significant obstacles from both teachers and students. The obstacles experienced by teachers primarily lie in the planning and preparation stages of learning. Ghoroibul Qur'an material, which requires an accurate understanding of commentary and recitation tones, requires clear and easily accessible reference sources. However, in practice, teachers only rely on audio files shared through WhatsApp groups, which are often difficult to find again because they are piled up with other messages or even deleted. As a result, teachers must spend more time searching for the required files, which certainly disrupts time efficiency and concentration in designing optimal learning. Limited easily accessible reference sources can negatively impact the quality of teacher

¹² Lexy J. Moleong, *Metodologi Penelitian Kualitatif* (Remaja Rosdakarya, 2010).

¹³ R. Anisya Dwi Septiani et al., "Implementasi Program Literasi Membaca 15 Menit Sebelum Belajar Sebagai Upaya Dalam Meningkatkan Minat Membaca," *Jurnal Perseda : Jurnal Pendidikan Guru Sekolah Dasar* 5, no. 2 (2022): 130–37, <https://doi.org/10.37150/perseda.v5i2.1708>.

learning preparation. This is supported by research showing that a lack of adequate learning resources can hinder teachers' ability to design optimal learning.¹⁴

Interviews with Quran teachers revealed challenges in two areas: first, readiness to deliver the material (especially memorizing the commentary notes), and second, access to audio files as supporting media. This suggests that teachers' skills in delivering Ghorib still require systematic and ongoing learning media support.

The main technical obstacle was the lack of a centralized digital media storage system, making it difficult to access Ghorib's commentary files. This aligns with previous findings from the coordinator, who also experienced difficulty retrieving audio files. From a learning management perspective, this reflects the weak integration of technology within the media management system and impacts teachers' effectiveness in preparing and implementing lessons.

On the other hand, students also experience difficulties in reviewing material at home. Although classroom learning has been conducted, reinforcement of reading outside of class hours is essential to improve fluency and comprehension. However, limited access to audio learning media is a major obstacle. Some students lack adequate digital devices or a stable internet connection to access materials sent via WhatsApp. Even if materials are successfully downloaded, not all students are able to use them independently without visual aids or interactive instructions. This directly impacts student motivation and the quality of pronunciation of ghorib readings, the primary learning objective. The availability of adequate learning resources, including internet access and digital devices, also contributes significantly to student learning outcomes. Research shows that students with access to comprehensive learning resources tend to demonstrate better academic achievement.¹⁵

From an innovation perspective, students' need for audio-based media is very real. The presence of an Android app containing audio pronunciations of the ghorib (non-native Arabic pronunciation) could be a systemic and sustainable solution. This way, students would no longer have to search for content haphazardly or rely on family assistance. Instead, they could repeat pronunciation independently with audio guidance that meets Ummi's reading standards.

The findings of teacher and student obstacles in Ghoroibul Qur'an learning at MI Integral Al-Ukhuwwah can be analyzed using the learning management theory approach proposed by education experts. According to Syaiful Sagala,¹⁶ Learning management encompasses systematic

¹⁴ Nuriya Rahma and Muhammad Khoirul Ritonga, "Analisis Kesulitan Guru dalam Kegiatan Belajar Mengajar Siswa MTs Hafizul Ikhwan pada Era New Normal," *Jurnal PIPSI (Jurnal Pendidikan IPS Indonesia)* 7, no. 2 (2022): 123–33, <https://doi.org/10.26737/jpipsi.v7i2.3094>.

¹⁵ Mursida Mursida, "Pengaruh Kualitas Pengajaran, Fasilitas Belajar, Dan Sumber Belajar Terhadap Prestasi Belajar Siswa," *CENDEKIA: Jurnal Ilmu Pengetahuan* 5, no. 2 (2025): 2, <https://doi.org/10.51878/cendekia.v5i2.4727>.

¹⁶ Syaiful Sagala, *Konsep dan Makna Pembelajaran* (Alfabeta, 2010).

planning, implementation, and evaluation to achieve educational goals. In this context, the disorganized distribution of learning materials, such as scattered audio files on WhatsApp, represents weak management in the planning and provision of learning resources.

This weakness impacts the lesson planning stage, as teachers must waste time searching for materials that should be readily available and structured. This indicates that the managerial process is not running optimally, and teachers struggle to access and manage technical yet crucial teaching materials, particularly for ghorib materials, which are specific in pronunciation and tone.

Furthermore, from the perspective of the learning innovation theory put forward by Fullan¹⁷ An innovation is considered effective if it improves the efficiency, quality, and relevance of the teaching and learning process. In this case, distributing materials via WhatsApp, an informal medium, did not meet these criteria. Instead, the unstable distribution system created new obstacles for teachers and students and reduced the effectiveness of material delivery.

Recommendations for Innovative Media Development

With various considerations and research, one of the most suitable media for this audio problem is an application, which can contain text and audio materials, and access is also easy because the application is specifically for ghorib learning, and the media from the application can be accessed offline without the internet because it is installed on the user's smartphone.

The limited use of WhatsApp groups and YouTube for distributing audio materials highlights the gap between student needs and the availability of learning resources. A small amount of research indicates that both students and teachers need platforms that can be accessed anytime, without relying on an internet connection.

Quickly accessible learning media is crucial, especially to support students in reviewing material independently at home. Reliance on media that require a stable internet connection, like YouTube, has proven to be a barrier, especially considering that not all students have adequate network access. Therefore, innovative solutions are needed that can reach all students equitably without relying on external technical factors.

In this context, developing a dedicated application for learning the Quran becomes highly relevant. An app specifically designed for this purpose will make it easier for students to access learning texts and audio offline. Not only is this practical, but it also reduces the burden on teachers from manually distributing materials, as all content can be accessed independently by students through a single platform.

With the application, learning Ghoroibul Qur'an will be more structured, focused, and able to increase student learning independence. This will certainly support the main goal of MI Integral

¹⁷ Michael Fullan, *The New Meaning of Educational Change* (Teachers College Press, 2001).

Al-Ukhuwwah in forming a Qur'anic generation that is not only able to read tartil, but also understand and appreciate the reading of the Qur'an better.

One of the main reasons for choosing an application as an innovative solution is its ability to load various types of material on one platform. Through the application, the Ghoroibul Qur'an reading text material can be paired directly with the audio reading, so students can learn to read while listening to the correct examples at the same time. This integration is certainly much more effective than using separate media between text in books and audio from WhatsApp files.

Furthermore, the app's accessibility is far superior to other platforms. With an app dedicated solely to learning the Quran, students no longer need to search for materials by typing keywords like on YouTube. All materials are systematically available within the app, simplifying navigation and accelerating the learning process. This provides a more convenient and efficient learning experience.

The app also gives teachers and madrasah administrators greater control in ensuring the quality of the material students learn. Because all content can be curated and developed internally, there's no risk of students accessing irrelevant content or content that doesn't align with madrasah learning standards. This is certainly different from open platforms like YouTube, which are vulnerable to interference from external content.

Furthermore, the app offers opportunities for continuous development. New materials can be updated regularly, additional features such as practice questions or memorization tests can be added, and student progress reports can be integrated into the system. This way, the app is not only a passive learning tool but also an effective monitoring and evaluation tool for Ghoroibul Qur'an learning at MI Integral Al-Ukhuwwah.

One of the main advantages of using the Ghoroibul Qur'an app as a learning tool is its ability to be used offline. Once the app is installed on the user's smartphone, all materials, both text and audio, can be accessed without an internet connection. This is especially helpful for students with limited internet access at home, as they can still review and understand the material whenever they want without relying on a network.

Furthermore, the app offers much easier navigation than platforms like YouTube. There's no need for manual searches or keyword typing; all materials are neatly organized by category or chapter. This saves students time and energy, and minimizes the risk of errors in selecting materials that best suit their learning needs.

Another advantage of the app is its ability to organize material by grade level or difficulty level. This categorization system allows students from grades 1 to 6 to easily find material appropriate for their respective levels. This also helps teachers provide more structured and specific assignments or independent study directions to each group of students.

Furthermore, the app can be equipped with audio speed adjustment, auto-repeat, or even interactive exercises, making the learning experience more engaging. This flexibility allows students to tailor their learning methods to their individual needs, whether they prefer listening repeatedly, slowing down the recitation to understand the ghorib tones, or practicing the recitation immediately after listening to the examples.

Based on the analysis conducted, it can be concluded that the Ghoroibul Qur'an learning application is the most appropriate and effective solution to overcome obstacles in the student learning process at MI Integral Al-Ukhuwwah. With the advantages of offline accessibility, integration of text and audio materials, and more practical navigation, the application is able to meet the needs of students and teachers better than other media such as WhatsApp or YouTube. This application offers a more stable, secure, and focused platform to support continuous Quran learning.

Using the app also offers benefits in terms of student learning independence. Students are no longer dependent on teachers for additional materials, as all learning resources are available in one easy-to-use system. This strongly supports the principle of lifelong learning, where students can develop better independent learning habits from an early age.

Considering all aspects of ease of use, accessibility, completeness of content, and potential for development, the Ghoroibul Qur'an learning application is highly recommended as a long-term solution at MI Integral Al-Ukhuwwah. Implementing this application will not only address existing obstacles but will also improve the overall quality of learning, in line with the madrasah's vision of developing a generation of high-achieving and noble Quranic learners.

Design and Features of the Ghoroibul Qur'an Learning Application



The welcome screen displays to greet users who open this application, here a button is provided for users to go directly to the material.



The main display of the application contains support buttons for users such as explaining the Ummi and Ghorib methods, guides, check for updates, and others.



The material page displays text material as well as audio which can be accessed by pressing the play button.



One of the buttons, specifically on Isymam's material, will direct users directly to the video material on YouTube.

Ghorobul Qur'an Application Specifications

As the culmination of the research process and a concrete manifestation of the recommended solution, an innovative digital learning medium has been successfully developed

under the name of the Ghoroibul Qur'an Application. This application was born as a direct response to various factual obstacles encountered in the field, particularly related to teachers' difficulties in accessing teaching materials and students' limitations in independent learning at MI Integral Al-Ukhuwwah. Thus, the specifications of this application are not only designed based on technical considerations, but are also firmly rooted in the needs analysis outlined in the previous chapters. The goal is to create an integrated, easily accessible, and effective digital learning ecosystem for Ghoroibul Qur'an materials within the Ummi Method framework.

The design and development of this application was carried out entirely by the researcher, Muhammad Ryan Maulana, S.Pd., who holds the role of Lead Developer. In his capacity as Lead Developer, the researcher manages all technical stages, starting from conceptualizing the idea, designing the interface (UI) and user experience (UX) design, coding, to testing the application's functionality. The development was also supported by Ustadz M. Nor Zain, S.Pd.I as the Regional Coordinator of Ummi HSU and also supported by Ustadz Pahrudi as Manager of Area 2 Ummi (Kalimantan).

The main philosophy behind this app's development is transforming the distribution of materials into a structured digital curriculum platform. Unlike previous methods that relied on sending random files via WhatsApp, this app presents Ghoroibul Qur'an material systematically and sequentially according to the Ummi Method syllabus. Each lesson, phrase, and commentary are organized into logical units, allowing users to navigate the content easily. This neat structure directly supports better learning management, where teachers can plan lessons with reliable resources, and students can follow a clear and progressive learning path.

One of the most fundamental and crucial features of this application is the availability of high-quality, standardized audio recordings of ghorib recitations. Recognizing that accurate pronunciation and tone are at the heart of ghorib learning, all audio recordings are recorded directly by Ust. Muhammad Nor Zain, S.Pd.I, the Regional Coordinator of Ummi in Hulu Sungai Utara Regency. The involvement of a certified expert ensures that every audio example students hear has the validity and scientific authority that aligns with the Ummi Method's sanad. This effectively eliminates the problems of inconsistency and doubt that previously arose from unverified audio sources.

More than just an audio presenter, this app integrates two learning components (text and audio) into one cohesive screen. For each ghorib phrase, students not only see the text but also read commentary and instructions on how to read it correctly. Directly below the explanation is a play button to listen to the audio pronunciation. This approach is designed to strengthen cognitive processes, allowing students to connect the visual form of the text with the auditory example simultaneously, thus accelerating comprehension.

The most vital technical specification and the primary solution to students' challenges is the application's ability to function fully offline. All core assets, including all text and audio files, have been compressed and embedded directly into the application installation package. Therefore, once the application is downloaded and installed, students no longer need an internet connection to access learning materials. This technical decision directly addresses the digital divide, ensuring that all students, regardless of their home internet connection, have an equal opportunity to review lessons consistently.

In terms of user experience, the app's interface is designed with a minimalist, intuitive, and child-centric approach. The color palette, typography, and icons are chosen to create a calm and focused learning environment, in line with the etiquette of studying the Quran. Navigation is kept very simple, allowing students to access the desired lesson with just a few taps of their finger without navigating complicated menus. Furthermore, the app is free from distracting elements such as ads, social notifications, or complex login prompts, ensuring that time spent in the app is used purely for learning purposes.

CONCLUSION

The research results show that the implementation of Ghoroibul Qur'an learning in this madrasah has been systematically and structured, encompassing the opening, memorization, delivery, tadarus (recitation), and closing stages. However, in practice, teachers and students still face significant obstacles, particularly in terms of access to and distribution of audio learning media, which is crucial for ghorib material.

Teachers struggle to plan and deliver material effectively because audio files of commentary and ghorib readings are often scattered across WhatsApp groups and difficult to access. Meanwhile, students lack consistent independent learning resources at home due to limited devices, internet connections, and integrated learning media. This situation impacts student effectiveness, motivation, and learning outcomes, particularly in terms of reading accuracy and independence in reviewing lessons.

As a solution, Android app-based learning media is recommended because it integrates text and audio into a single, easy-to-use platform that can be accessed offline. These apps not only facilitate teacher distribution of materials but also enable students to learn independently at any time without relying on an unstable internet connection or communication media. These apps also address the need for a more efficient, organized, and sustainable learning system.

These findings reinforce several theories that have been explored in research. First, according to Ginting et al.,¹⁸ Audio-visual media has been proven to improve students' muraja'ah skills and reading accuracy. Second, as Isti'ana stated,¹⁹ The use of Android applications creates a personalized, flexible, and enjoyable learning experience. Third, from a managerial perspective, these findings actualize the views of Hamdi, Yuliansyah, & Madihah,²⁰ that good learning management is characterized by efficiency in managing media, time, and learning interactions.

Thus, innovative learning media in the form of an Android application for Ghoroibul Qur'an material is a strategic and effective step in improving the quality of Qur'an learning at the elementary madrasah level. This solution addresses real challenges in the field and paves the way for a digital transformation of Islamic education that is contextual, standardized, and maintains Islamic values.

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