

(Research) Article

# Artificial Intelligence Based Al-Qur'an Learning Media Design "Tarteel" on Fastabiqul Khoirot Material

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**Abstract.** This study discusses the design of artificial intelligence-based Al-Qur'an learning media through the Tahseen platform with a focus on the theme of Fastabiqul Khoirot. Al-Qur'an learning in the digital era faces challenges in the form of a lack of interest and involvement of students due to monotonous conventional methods. This study, through library research, aims to provide an overview of how to increase the efficiency of Al-Qur'an learning by integrating AI "Tarteel" Fastabiqul Khoirot Material in the learning process. This study considers the ethical and practical implications of the use of AI technology in religious learning and evaluates its impact on Al-Qur'an learning. In addition, this study also identifies various opportunities and challenges in the use of AI. The results of the study show that the AI "Tarteel" Fastabiqul Khoirot Material not only functions as a supplementary learning medium, but also proven effective in helping students improve their basic Quran reading skills. This success supports the use of applications as innovative learning solutions, while also confirming that technology-based learning, such as the Tarteel application, has great potential to be further developed to improve the quality of Quran education for all students. It is hoped that the results of this study can encourage wider adoption of AI technology in the education system, especially in the context of Quran learning. By strengthening the understanding of how best to utilize AI technology in Quran learning, it is hoped that a more effective and holistic approach can be developed.

**Keywords :** Al-Qur'an Learning; Artificial Intelligence; Fastabiqul Khoirot; Tahseen; Tarteel

## 1. Background

The rapid development of technology can shift student interests, motivation, and engagement. This is particularly true in Quranic learning, which is often one-way, monotonous, and leaves students less motivated to read, study, and memorize the Quran and its contents (Ikhsan, 2023). On the other hand, the development of appropriate technology opens up opportunities for more varied, engaging, and interactive learning innovations, as has been widely discussed recently. This allows technological advancements to contribute to the development and facilitation of daily activities, including learning (Afliyani et al., 2024).

Artificial Intelligence, or AI for short, has had a significant impact on human life, including positive effects on education. AI influences the academic achievement of students at various levels of education. As AI already accompanies the daily lives of students and teachers, its inclusion in learning provides a solution that simplifies learning (Ridha et al., 2024).

Learning the Quran, particularly in terms of reading (tilawah) and understanding the verses (tadabbur), requires appropriate guidance in tajwid, makhraj, and understanding the

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context of the verses (Mahfud et al., 2024). In these learning activities, learning is predominantly one-way, with intensive supervision and guidance from the teacher. Therefore, the use of existing technology can facilitate learning that is not solely teacher-centered. Thus, AI can facilitate interactive, non-teacher-centered Quran learning (Ikhsan, 2023).

## 2. Theoretical Study

### Definition and Principles of Tarteel AI-based Learning

Tarteel is an AI-based application used to assist in improving and correcting Quranic recitation (makhraj & tajwid rules). This platform allows teachers to create interactive learning activities that can be accessed online. Tarteel is also an approach to Quranic learning that utilizes artificial intelligence to assist students in implementing fastabiqul khoirot learning material in reading, memorizing, and pronouncing tajwid correctly, having similarities with the traditional sorogan method and transforming it into an AI-based adaptive-learning system (Zahrani & Muthahari, 2024).

In learning Tarteel Al-Qur'an, there are also principles in learning, including (Mahfud, 2024):

#### 1) Personalization & Adaptation of Learning

The system records errors in previously recited verses and creates personalized memorization according to the student's potential according to each student's learning style and speed.

#### 2) Time Efficiency and Motivation

In this case, the Tarteel application saves time and energy in significantly improving memorization skills and can motivate students to learn to memorize the Quran.

#### 3) Integration of Traditional Methods and Technology

In principle, the Tarteel application is a combination of classical learning methods and modern AI-based technology to create an effective hybrid learning approach or media.

#### 4) Data Analysis and Progress Reporting

Rapid technological developments have resulted in AI being able to help collect student data, student errors, feedback, and memorization rates, thus facilitating progress monitoring by students and educators.

### Characteristics of AI-Quran Learning

Learning the Qur'an has different characteristics from other subjects. According to Ihsyan & Abrianto, (2024), learning the Qur'an does not only focus on the cognitive aspect, but also involves the affective and psychomotor aspects. The cognitive aspect includes understanding the meaning and interpretation of verses, the affective aspect relates to the internalization of values, and the psychomotor aspect includes reading skills with correct tajweed. Saputri et al., (2024) added that learning the Qur'an requires a comprehensive approach that not only emphasizes memorization, but also the understanding and application of values in everyday life. Kapp et al., (2014) revealed that gamification can be an effective approach in learning that requires active student involvement and internalization of values.

### Obstacles and Challenges in Learning the Qur'an

In learning the Qur'an, many obstacles and challenges are encountered, both internal and external. According to Ihsyan & Abrianto, (2024), internal challenges include: 1) difficulty reading and understanding Arabic texts, 2) lack of motivation, and 3) difficulty remembering verses. While external challenges, namely: 1) limited learning time, 2) limited interactive media, and 3) lack of environmental support. Aminaty & Jasiah, (2025) added that the lack of student activity and involvement is a major obstacle in learning the Qur'an. Alshammari, (2020) identified challenges encountered in implementing gamification in learning, namely: 1) limited access to technology, 2) difficulty designing gamification elements that are appropriate to the content, and 3) lack of teacher understanding of the concept of gamification.

### Artificial Intelligence Theory

Artificial intelligence, or AI, is a collection of principles, concepts, and approaches that underlie the ability of chips, machines, or computers to mimic human intelligence. In the 1950s, Alan Turing considered whether machines could think. This question has been developed over the past few decades through the research and collective efforts of many scientists and engineers. From 2007 to the present, AI has become more

accessible, leading to increased adoption, innovation, and advancements in machine learning.

This intelligence aims to create systems that can think, learn, make decisions, and solve problems like humans. AI can assist humans in carrying out daily tasks. Future AI is envisioned as an AI system with autonomous self-control, natural human-like self-awareness, and the ability to learn new skills.

Artificial intelligence theory refers to the study of the principles and methods underlying the development of AI systems, encompassing areas such as machine perception, learning, reasoning, and decision-making. AI's core capabilities include:

- 1) Learning: AI learns patterns from the data displayed to get the desired results.
- 2) Reasoning: AI is tasked with drawing logical conclusions from the information provided.
- 3) Language Understanding (Natural Language Processing): Understanding and producing human language
- 4) Computer Vision: Recognizing images and videos
- 5) Decision Making: AI can choose the best action based on data or situations.

### 3. Research Methods

This study, through library research, aims to provide an overview of how to improve the efficiency of Quran learning by integrating AI "Tarteel" Fastabiqul Khoirot Material in the learning process. This study discusses the design of artificial intelligence-based Quran learning media through the Tahseen platform with a focus on the theme of Fastabiqul Khoirot. In addition, this study considers the ethical and practical implications of the use of AI technology in religious learning and evaluates its impact on Quran learning. In addition, this study also identifies various opportunities and challenges in the use of AI.

### 4. Results And Discussion

#### Analysis of Al-Qur'an Learning Material: Fastabiqul Khoirot

##### *The concept of designing learning media with the theme Fastabiqul Khoirot*

The concept of designing learning media with the theme Fastabiqul Khoirot is based on three verses of the Qur'an, namely:

- 1) QS. Al-Maidah verse 48  
Learning objectives:
  - a) Understanding the diversity of ways to achieve goodness in Islam.
  - b) Identifying various forms of goodness for positive competition.
  - c) Internalize the spirit of competition in goodness.
- 2) QS. Al-Baqarah verse 195  
Learning objectives:
  - a) Analyzing various forms of alms and charity.
  - b) Identifying behavior that is harmful to oneself and others.
  - c) Demonstrate good behavior in collaborative learning.
- 3) QS. Al-A'raf verse 56  
Learning objectives:
  - a) Identify the forms of damage that should be avoided.
  - b) Develop an optimistic but vigilant attitude.
  - c) Connecting the concept of doing good with environmental protection.

##### *Type of Al-Qur'an Material with the Theme: Fastabiqul Khoirot*

The types of Al-Qur'an learning materials can be classified into: 1) reading and tajweed materials, 2) memorization materials, 3) interpretation and understanding materials, and 4) application of Al-Qur'an values (Ihsyan & Abrianto, 2024). Febriyani & Vebrianto, (2025) explained that Wordwall can be adapted for various types of materials using various templates, including: 1) sound games for reading and tajweed, 2) memory games for memorization, 3) quizzes and matching games for interpretation, and 4) scenario games for application of values. Saputri et al., (2024) added that the Quiz Box Wordwall is very effective for the material of Faith in the Books of Allah, allowing students to answer questions about the Al-Qur'an in an interesting and interactive format.

##### **Analysis of the Advantages of Tarteel Learning Media**

The integration of Artificial Intelligence (AI) into Quran learning presents a positive opportunity and impacts on improving the efficiency of Quran learning. However, its use also presents several obstacles and challenges. AI models have been developed to recognize Quran recitation and identify Quranic verses in Arabic textual content with high accuracy (Harere & Jallad, 2023). Furthermore, AI has been used to predict students' Quran memorization performance, assist teachers in selecting appropriate memorization methods, and aid in Quran recitation learning through error detection (Touati-Hamad & Laouar, 2022).

The Tarteel Learning Media demonstrates how technology can contribute to increasing the efficiency and effectiveness of Quranic reading and writing learning in schools. With advanced features, this application provides guidance on Quranic pronunciation that is in accordance with the makhorijul huruf through detailed voice guidance, ensuring users learn correctly and precisely. In addition, Tarteel offers interactive exercises designed to help students improve their Quranic recitation, thus supporting deeper understanding. Therefore, this media is an innovative solution to strengthen the deepening of Islamic religion through quality Quranic learning in various groups. Research on the use of Tarteel learning media as a learning medium to reduce students' difficulties in reading the Quran is an important matter for further study (Hamdani & By Arifin, 2025).

The research results of Anisa Mulia et al. serve as a reference source for developing new strategies for learning the Quran using the digital application Tarteel. This application is inspired by the concept of at-tartil in the Quran.

The rules of reading the Qur'an require reading slowly while paying attention to the pronunciation of the letters. The name Tarteel was chosen to combine the concept of at-tartil with the artificial intelligence technology used in this application, so that this application can help users read the Qur'an better and more efficiently (Ahmad, 2020). By utilizing educational technology (Amalia & Arifin, 2023), which is increasingly rapid, researchers see new opportunities in providing students with a more comprehensive and interesting learning experience. The integration of traditional learning strategies with the advanced features offered by the Tarteel application can help enrich the learning experience. Al-Qur'an, so that there is an increase in students' interest and understanding of the Al-Qur'an.

Based on this presentation, it is clear that the Tarteel application not only serves as a supplementary learning medium but has also proven effective in helping students improve their basic Quranic reading skills. This success supports the application's use as an innovative learning solution and confirms that technology-based learning, such as the Tarteel application, has significant potential for continued development to improve the quality of Quranic education for all students.

#### **Analysis of Tarteel Learning Media Deficiencies**

Although there are many opportunities to integrate AI in Quranic learning, there are also several challenges that must be faced, starting from the availability of resources, of course not all madrasas or schools have adequate access to the technology and training needed to implement AI in learning. In addition, although there are challenges that must be faced, such as the digital divide and the quality of interaction, with the right approach, this platform can be an effective tool in supporting religious education in the digital era. As technology develops, it is important for educational institutions to continue to adapt and utilize the potential offered by artificial intelligence in the learning process. Furthermore, teacher readiness needs to be trained to use AI technology effectively in their teaching. Adequate training is crucial to ensure the successful integration of AI in accordance with Ethics and Values. The use of AI in the context of religious learning must consider the ethical and moral values contained in the Quran (Nopiyanti, 2025).

## **5. Conclusion And Suggestions**

### **Conclusion**

The research results show that the AI-based "Tarteel" Fastabiqul Khoirot material not only serves as a supplementary learning medium but is also proven effective in helping students improve their basic Quranic reading skills. This success supports the application's use as an innovative learning solution and confirms that technology-based learning, such

as the Tarteel application, has great potential for continued development to improve the quality of Quranic education for all students.

### Suggestion

It is hoped that the results of this research will encourage wider adoption of AI technology in the education system, particularly in the context of Quranic learning. By strengthening understanding of how best to utilize AI technology in Quranic learning, it is hoped that a more effective and holistic approach can be developed.

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