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# Artificial Intelligence Utilization in Islamic Religious Education Learning: Challenges to Cognitive Competence and Academic Integrity

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## ABSTRACT

This study aims to explore the utilization of Artificial Intelligence in Islamic Religious Education learning and examine its challenges to students' cognitive competence and academic integrity practices. This study employed a qualitative approach with an instrumental case study design. Data were collected through classroom observations, interviews, and documentation analysis involving teachers and students. The data were analyzed using the interactive model of Miles, Huberman, and Saldaña, including data condensation, data display, and conclusion drawing. Data validity was strengthened through triangulation techniques. The findings show that Artificial Intelligence provides positive contributions to learning activities by helping students access information quickly, understand learning materials, and search for religious references more efficiently. However, excessive dependence on AI-generated answers reduced some students' engagement in independent thinking processes, particularly in understanding, analyzing, and critically evaluating learning materials. Several students also demonstrated challenges related to academic integrity through copy-paste practices and excessive dependence on AI-generated content in assignments and examinations. Factors influencing students' dependence on AI include technological convenience, academic workload, instant access to answers, and limited teacher supervision during learning activities. The utilization of Artificial Intelligence in Islamic Religious Education learning requires proper guidance, ethical literacy, and active teacher supervision to ensure that AI functions as a learning support tool rather than as a substitute for students' independent thinking processes.

**Keywords:** Artificial Intelligence, Cognitive Competence, Academic Integrity.

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## INTRODUCTION

Islamic religious education has a fundamental role in shaping students' character, morality, spirituality, and understanding of Islamic teachings. In the context of the Society 5.0 era, the integration of digital technology, particularly Artificial Intelligence (AI), has significantly transformed the educational landscape (Pratiwi & Yunus, 2024). AI offers various opportunities in education through its ability to process information, generate text, and assist learning activities efficiently (Chaerany, 2024). In learning practices, AI can support students in accessing learning resources, understanding materials, and completing academic tasks more effectively.

The development of generative AI technologies such as ChatGPT has significantly transformed the way students obtain, process, and utilize information in learning activities. Generative AI refers to artificial intelligence systems capable of producing texts, summaries, explanations, and responses automatically based on user prompts. According to Li et al., (2024), generative AI technologies have increasingly become part of educational practices because they provide fast access to information, adaptive explanations, and interactive learning assistance for students. Similarly, Kaswan et al., (2024), explain that AI-based platforms are able to support students' learning activities through instant feedback, automated content generation, and personalized learning experiences.

In educational contexts, cognitive competence is an important aspect that refers to students' abilities to remember, understand, analyze, and evaluate information during the learning process. These competencies are essential in Islamic Religious Education learning because students are expected not only to memorize religious materials, but also to critically understand and interpret Islamic teachings contextually. However, the increasing use of AI in academic activities also raises concerns regarding students' independent learning engagement and critical thinking processes. Several studies indicate that excessive reliance on AI may reduce students' opportunities to engage in deep reading, reasoning, problem-solving, and independent analysis (Harianto et al., 2025).

In addition to cognitive competence, academic integrity practices also become an important concern in AI-assisted learning. Academic integrity refers to ethical values in academic activities, including honesty, responsibility, originality, and fairness in completing learning tasks. The ability of AI to generate ready-to-use texts potentially encourages practices such as copy-paste behavior and uncritical use of machine-generated answers. As a result, students may become less involved in the reflective and analytical processes that are central to meaningful learning experiences.

Several studies have shown that excessive dependence on AI may influence students' learning behavior, particularly in terms of critical thinking and independent cognitive engagement (Arsyad & Fitroh, 2025). In Islamic Religious Education learning, students are required to compare sources, understand the context of religious texts, and evaluate the validity of information critically (M. Mijwil et al., 2023). When students rely excessively on AI-generated answers without verification or reflection, they may lose opportunities to develop problem-solving skills, analytical thinking, and the ability to formulate logical religious arguments (Irawati & Hadi, 2025).

Previous studies have widely discussed AI utilization in general educational contexts; however, discussions regarding its challenges to cognitive competence and academic integrity in Islamic Religious Education learning remain limited. Therefore, this study seeks to explore how AI is utilized in Islamic Religious Education learning and examine its challenges related to students' cognitive competence and academic integrity practices.

## METHOD

This study employed a qualitative approach with a descriptive qualitative design. This approach was chosen because the researcher aimed to obtain an in-depth and holistic understanding of the phenomenon of Artificial Intelligence (AI) utilization in Islamic Religious Education learning, particularly regarding students' cognitive competence and academic integrity practices. Rather than examining causal relationships or statistical correlations, this study focused on exploring students' experiences, learning behaviors, and perceptions related to AI utilization within educational contexts. This research refers to Creswell and Poth in Qualitative Inquiry and Research Design: Choosing Among Five Approaches, who explain that qualitative research is an investigative process used to understand social phenomena through detailed views of participants and naturalistic inquiry. This study used a case study design, specifically an instrumental case study. This type of research was selected because the researcher intended to gain a deeper understanding of how AI utilization is experienced and interpreted within real learning situations, especially in relation to cognitive engagement and academic integrity practices in Islamic Religious Education learning.

To obtain accurate, in-depth, and objective data, the researcher used three complementary data collection techniques through triangulation: observation, interviews, and documentation. Observations were conducted to identify students' learning behaviors and patterns of AI utilization during learning activities. Semi-structured interviews were carried out with students and teachers to explore their perceptions, experiences, and responses regarding the use of AI in learning. Documentation techniques were used to examine students' assignments, assessment results, and other academic documents related to AI-assisted learning activities. Data collection was conducted naturally within the school environment to ensure that the findings reflected authentic educational practices.

This study applied triangulation techniques to enhance the credibility and validity of the findings. Miles, Huberman, and Saldaña in Qualitative Data Analysis: A Methods Sourcebook explain that triangulation is used to strengthen the trustworthiness of research findings through the use of multiple data sources, methods, and perspectives (Miles et al., 2014). In addition, (Denzin & Lincoln, 2011) state that triangulation is not merely aimed at seeking a single objective truth, but rather at developing a deeper and more comprehensive understanding of the phenomenon being studied.

The data analysis process in this study followed the interactive model proposed by (Miles et al., 2014), which consists of three stages: data condensation, data display, and conclusion drawing/verification. In the data condensation stage, the researcher selected, simplified, and categorized data obtained from observations, interviews, and documentation related to AI utilization, cognitive competence, and academic integrity practices. The second stage, data display, involved organizing the findings systematically in the form of descriptive narratives and thematic categories to facilitate interpretation. The final stage consisted of drawing conclusions and continuously verifying the consistency of findings across different data sources throughout the research process.

## RESULT AND DISCUSSION

### Artificial Intelligence Utilization in Islamic Religious Education Learning

Artificial Intelligence (AI) has become increasingly integrated into students' learning activities in Islamic Religious Education learning. Based on observations and interviews, students use AI for various academic purposes, such as searching for learning materials,

summarizing lessons, completing assignments, translating texts, finding Qur'anic verses and Hadith references, and obtaining explanations about topics they find difficult to understand. Most students considered AI to be a practical and efficient tool because it allows them to access information quickly and complete academic tasks more easily. This finding supports the study conducted by Li et al., (2024), which explains that generative AI technologies are increasingly used in educational settings because they provide adaptive explanations, instant responses, and interactive learning assistance. Similarly, Kaswan et al., (2024) state that AI-based technologies contribute to educational efficiency by supporting personalized learning experiences and accelerating students' access to information.

During interviews, several students explained that AI helped them better understand learning materials that were previously difficult to comprehend. Some students admitted that they used AI to simplify complex explanations into more understandable language. Others used AI to search for supporting references related to Islamic teachings, such as interpretations of Qur'anic verses, Hadith explanations, and examples of religious practices in everyday life. In addition, teachers also acknowledged that AI can positively support learning activities if it is used properly. According to several teachers, AI can encourage students to learn more independently because students can explore learning materials outside the classroom more easily. Teachers observed that students who used AI critically tended to become more active in searching for references and asking questions during discussions. These findings are consistent with Akram et al., (2025) concept of AI as learning scaffolding, where technology functions as a support system that helps students overcome learning difficulties and expand their understanding. In this context, AI does not necessarily replace the role of students in learning, but can function as an additional tool that supports learning effectiveness when accompanied by critical thinking and proper guidance.

**Figure 1. Researchers as PPL Teachers Direct Students to Utilize AI Wisely**

However, the findings also reveal that the increasing use of AI has changed students' learning habits. Some students became accustomed to obtaining answers instantly rather than engaging in deeper learning processes. Instead of reading textbooks, analyzing references, or discussing materials independently, several students tended to rely directly on AI-generated answers. This indicates that although AI offers educational benefits, its utilization also creates challenges related to students' learning engagement and cognitive development.

**Challenges to Students' Cognitive Competence**

The findings of this study reveal several challenges related to students' cognitive competence in Islamic Religious Education learning. Based on classroom observations and interviews with teachers, some students who frequently relied on AI-generated answers experienced difficulties in understanding, explaining, and analyzing learning materials independently. One of the most visible challenges appeared in students' ability to remember

and explain religious materials. Teachers explained that some students were able to submit assignments with relatively high scores, yet experienced confusion when asked to explain the content orally during classroom discussions. Several students also struggled to recall Qur'anic verses, prayer recitations, or concepts that they had previously written in assignments. This condition can be associated with the concept of cognitive offloading proposed by Risko & Gilbert (2016), which refers to the tendency of individuals to transfer cognitive tasks such as remembering and processing information to technological tools. When students continuously rely on AI-generated answers, they may gradually reduce their active involvement in memorizing, understanding, and processing information independently.

The findings also indicate that excessive dependence on AI may influence students' critical thinking abilities. During observations, several students appeared to accept AI-generated information directly without evaluating its accuracy, relevance, or contextual suitability. In some cases, students copied answers generated by AI without attempting to analyze the meaning or verify the correctness of the information. This finding is relevant to George et al., (2024) argument that excessive dependence on digital technology can weaken deep cognitive engagement and reflective thinking. Carr explains that the habit of receiving instant information may gradually reduce individuals' ability to engage in sustained concentration, deep reading, and analytical reasoning.

In Islamic Religious Education learning, critical thinking is particularly important because students are expected not only to memorize religious teachings but also to understand their context, compare sources critically, and formulate religious arguments logically. Therefore, when students become overly dependent on AI-generated answers, they may lose opportunities to practice analytical thinking and independent reasoning. Despite these challenges, the findings also reveal positive cognitive experiences among students who used AI responsibly. Several students stated that AI helped them understand complex materials more easily and supported them in finding additional references for learning. Students who used AI as a complementary learning tool rather than as a direct answer provider tended to remain actively involved in the learning process.

This finding indicates that the challenges to cognitive competence do not emerge solely because of AI itself, but rather because of patterns of excessive and uncritical dependence on technology. Therefore, the role of teachers is important in guiding students to use AI as a learning aid while still encouraging independent thinking and reflective learning practices.

**Challenges to Academic Integrity Practices**

Another important finding in this study relates to challenges to academic integrity practices in AI-assisted learning. Based on interviews, observations, and documentation analysis, several students admitted that they frequently copied AI-generated answers directly to complete assignments more quickly. Some students only made minor modifications before submitting the assignments as their own work. Teachers also reported finding similarities in students' writing styles, answer structures, and sentence patterns, which indicated strong dependence on AI-generated content. In several cases, teachers observed that students submitted assignments with good language structure and complex explanations, yet struggled to explain the content when questioned directly. Documentation analysis also showed that several students' examination answers contained a very high percentage of AI-generated content. This finding indicates that AI utilization in learning activities may reduce students' originality and independent engagement in completing academic tasks.

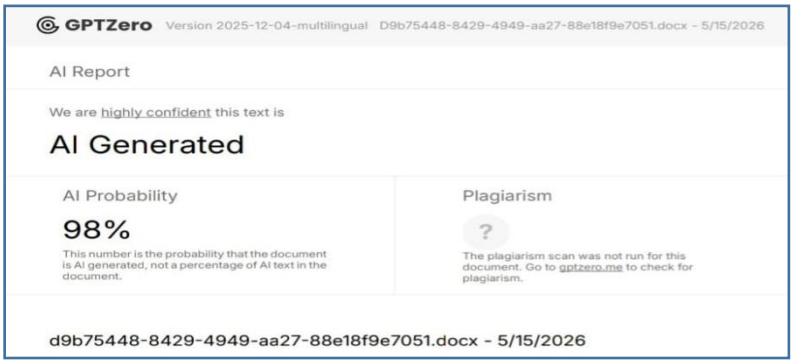


**Figure 2. AI Check Results Student Exam Results Exceed 90%**

This condition raises concerns regarding honesty, originality, and responsibility in academic activities. In Islamic Religious Education learning, values such as ṣidq (honesty) and amanah (responsibility) are essential components of character formation. However, some students appeared to perceive AI merely as a practical technological tool without fully considering the ethical implications of using machine-generated answers without meaningful personal contribution. These findings can be explained through Bandura's theory of moral disengagement, which states that individuals may justify questionable actions by reconstructing them as acceptable behavior in certain situations. In this study, several students viewed the use of AI-generated answers as a normal adaptation to technological development rather than as a form of academic dishonesty. Similarly, the findings are also related to the Neutralization Theory proposed by (Sykes & Matza, 1957). Several students attempted to justify their actions by arguing that they had edited the AI-generated answers slightly, leading them to believe that the work could still be considered original. This reflects how technological developments may gradually influence students' perceptions regarding academic honesty and ethical responsibility.

The findings also show that some students had difficulty distinguishing between using AI as a learning support tool and using AI as a substitute for personal effort. In several interviews, students admitted that they did not fully understand the ethical boundaries regarding AI utilization in academic activities. This indicates the importance of strengthening ethical literacy and academic integrity awareness in technology-assisted learning environments. Nevertheless, the study also found that not all students used AI irresponsibly. Some students used AI ethically by utilizing it to search for references, clarify explanations, or assist understanding while still rewriting answers in their own language and conducting additional verification. This suggests that academic integrity challenges are closely related to students' awareness, learning habits, and ethical understanding rather than to the existence of AI technology alone.

**Factors Influencing Students' Dependence on Artificial Intelligence**

The findings of this study identified several factors influencing students' dependence on AI in learning activities. One major factor was the practicality and speed offered by AI platforms. Students explained that AI applications are easy to access through smartphones and capable of generating answers instantly with minimal effort. This convenience made AI highly attractive for completing assignments and searching for information quickly. This finding aligns with Zipf (2016), which explains that individuals naturally tend to choose easier and faster methods to complete tasks. In educational settings, students may prefer AI-generated answers because they require less cognitive effort compared to conducting deeper analysis independently. Another factor contributing to students' dependence on AI was

academic workload. Several students admitted that they used AI because they felt overwhelmed by the number of assignments that needed to be completed within limited time. Under these conditions, AI became a practical shortcut that helped students complete tasks more efficiently.

The findings also show that limited teacher supervision during certain learning sessions influenced students' AI utilization behavior. During observations, some classroom situations allowed students to access AI-generated answers freely without sufficient monitoring or guidance from teachers. This created opportunities for students to use AI excessively without engaging critically with learning materials. Teachers' presence in the classroom was found to play an important role in guiding students to use AI responsibly and preventing unethical academic behavior during learning activities.

**Figure 3. Teachers Play an Important Role in Supervising Students to Avoid Cheating**

In addition, the attractiveness of AI itself also contributed to students' dependence. Students described AI as a technology that provides fast, simple, and instant solutions. The ability of AI to produce answers immediately after users enter prompts created a strong sense of convenience for students. This condition is also related to the concept of instant gratification proposed in the Hook Model by Eyal (2014), where technologies that provide quick and satisfying responses can encourage repetitive usage behavior. As students repeatedly experience the convenience of obtaining instant answers from AI, they may gradually become more dependent on technology in academic activities.

Overall, the findings demonstrate that students' dependence on AI is influenced by both internal and external factors, including learning habits, technological convenience, academic workload, and limited supervision. Therefore, addressing excessive AI dependence requires not only technological regulation but also educational strategies that strengthen critical thinking, ethical awareness, and independent learning practices in Islamic Religious Education learning.

## CONCLUSION

Artificial Intelligence has become an important part of students' learning activities in Islamic Religious Education learning. AI provides various educational benefits, such as helping students access learning resources quickly, understand difficult materials, search for religious references, and support independent learning activities. Students who use AI critically and responsibly tend to gain positive learning support through easier access to information and additional explanations related to learning materials.

However, the use of AI also creates various challenges to students' cognitive competence and academic integrity practices. Excessive dependence on AI-generated answers causes some students to become less involved in independent thinking processes, particularly

in understanding, analyzing, and critically evaluating learning materials. Several students experienced difficulties explaining learning materials independently despite obtaining good assignment scores. In terms of academic integrity, some students frequently copied AI-generated answers directly with only slight modifications, creating concerns regarding honesty, originality, and responsibility in academic activities. This condition indicates that some students still have difficulty distinguishing between the ethical use of AI as a learning support tool and the inappropriate use of AI as a substitute for personal effort.

Factors influencing students' dependence on AI include technological convenience, instant access to answers, academic workload, and limited teacher supervision during learning activities. Therefore, the utilization of Artificial Intelligence in Islamic Religious Education learning requires proper guidance, ethical literacy, and active teacher supervision so that AI supports rather than replaces students' cognitive engagement and independent learning processes. Strengthening critical thinking skills, academic integrity awareness, and responsible technology use is important to optimize the positive potential of AI in educational environments.

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