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Ethical Perceptions of Madrasah Ibtidaiyah Teacher Candidates Toward the Utilization of Artificial Intelligence Technology in Academic Contexts

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Abstract: This study examines the ethical perceptions of Madrasah Ibtidaiyah teacher candidates regarding the use of AI in academic work, focusing on their views on academic integrity, attribution, and responsible AI practices. The research aligns these perceptions with ethical frameworks, including utilitarianism, deontology, virtue ethics, and Moral Foundation Theory (MFT). A mixed-methods Explanatory Sequential Design was employed, starting with a survey of 62 teacher candidates from UIN Malang, followed by qualitative interviews with 11 participants. The study found that AI was primarily used for assignments and coursework, with most candidates viewing AI use positively, provided clear ethical guidelines were in place. Ethical perceptions aligned with MFT's core moral foundations—care/harm, authority/respect, and justice/fraud—as well as with utilitarian, deontological, and virtue ethics. A significant concern was the absence of formal AI policies, causing uncertainty. This study emphasizes the importance of integrating AI ethics guidelines into teacher education programs, with a focus on responsible AI use, paraphrasing techniques, and verification of AI output. Further research is needed to assess the development and impact of AI policies in teacher education, ensuring that academic integrity is maintained.
Keywords: Academic ethics, academic integrity, artificial intelligence, ethical perception, Madrasah Ibtidaiyah teacher candidates

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A. Introduction

Academic cheating among students in higher education is on the rise. One of the causes is students' misunderstanding of success indicators. They often measure success through grades from assignments and exams (Miles, Campbell, & Ruxton, 2022). Within the context of teacher candidates, Farah's (2021) study revealed that prospective teachers still engage in academic dishonesty, such as cheating, because they believe that grades solely determine academic success. Some prospective teachers admitted to being pressured into cheating. Similarly, (Herianto, 2023) reveal that of 79 prospective teachers, the majority (68.4%) still fell within the maximum threshold for plagiarism. Those studies mean that the majority of prospective teachers still demonstrate a lack of integrity. The

emergence of academic dishonesty behavior suggests that students' academic integrity is in jeopardy.

The Network for Academic Integrity (ENAI) describes academic integrity as the commitment to ethical, professional, and consistent principles, standards, practices, and value systems that guide decision-making and actions in education, research, and scholarship (Eaton, 2024). However, the term does not have a single universally accepted definition yet. Still, values such as trust and respect are frequently associated with academic integrity. Despite ongoing debates about its definition, universities worldwide have increasingly prioritized promoting academic integrity among their students (Luck, Chugh, Turnbull, & Rytas Pember, 2022). Integrity is also closely connected to moral foundations, implying that reinforcing these foundations can strengthen individual integrity (Gheisari, Khademi Ashkexari, & Hasanzade Tavakoli, 2024).

Moral Foundations Theory (MFT) defines moral foundations as the underlying principles that guide individuals' moral judgments of observed behaviors or actions. These principles function in an automatic and emotionally driven manner. The theory identifies five central moral foundations: harm/care, fairness/cheating, ingroup/loyalty, authority/respect, and purity/sanctity (Silver, 2017). It further argues that while all individuals share these foundations, the degree of importance attached to each varies across people and cultures, which helps explain political and cultural divides (Haidt, 2013). More recent scholarship expands this framework, identifying six principal foundations: caring, justice, loyalty, authority, purity, and freedom (Telkamp & Anderson, 2022). MFT also maintains that the human mind is naturally predisposed to grasp values, norms, and behaviors that address recurring social challenges. In this view, individuals are born with a "first draft" of a moral mind, shaped by evolutionary processes to internalize these social rules (Graham et al., 2013).

In the context of AI applications, Telkamp and Anderson (2022) argue that individuals' evaluations of an organization's use of AI, its data processing practices, and the resulting AI-based decisions depend on the extent to which these align with their underlying moral foundations. Within the framework of MFT, individuals possess varied moral foundations, which account for differences in moral judgments across different levels of AI use. (Firat, 2023) highlighted the crucial role of these foundations in shaping how academics and students perceive ChatGPT. While ChatGPT provides benefits to universities, it also generates adverse consequences (Bin-Nashwan, Sadallah, & Bouteraa, 2023). For instance, ChatGPT facilitates student plagiarism in academic tasks such as essay writing (Cotton et al., 2024). Additionally, ChatGPT also affects the assessments made by lecturers on student text assignments. Lecturers' suspicions about the quality of student assignments have increased. They even degraded student assignments that were suspected of being AI Chatbot products (Farazouli, Cerratto-Pargman, Bolander-Laksov, & McGrath, 2024).

In the context of elementary education, prior studies on teachers' perceptions of AI usage have largely concentrated on its role in teaching and learning, particularly in fostering students' creativity and problem-solving abilities (Han, Kim, & Kwon, 2020;

Ryu & Han, 2018). (Yusuf, 2025) argues that integrating AI into elementary classrooms offers considerable potential to enhance learning quality through tools such as Augmented Reality (AR), Virtual Reality (VR), and adaptive learning platforms. However, the realization of this potential is constrained by systemic barriers, including technological disparities, high implementation costs, inadequate infrastructure, and limited teacher preparedness. (Castro, Díaz, Aguilera, Prat, & Chávez-Herting, 2025) examined the perceptions of rural elementary school teachers, finding that they regard AI integration as a valuable means of personalizing instruction, reducing workload, and supporting teaching in multi-grade settings, rather than viewing it as a threat to their profession. Similarly, (Maigina & Wuryandani, 2024) emphasize elementary school teachers' perceptions of their readiness to adopt AI in teaching and learning.

Literature reviews have shown that the literature focusing on elementary school teacher candidates' ethical perceptions of AI remains limited. Meanwhile, understanding how teacher candidates' underlying ethical systems approach AI is important for teacher education. It can serve as a strong foundation for integrating AI into the teaching and learning process in elementary schools. For teacher candidates, ethical perception is a crucial competency that must be developed, as it will prevent them from violating ethics when they enter the workforce (Istiariani & Arifah, 2020). In the context of elementary education, moral teaching presents its own challenges, such as difficulty in selecting the proper method and inadequate parental responses (Chowdhury, Yesmin, & Obaydullah, 2019).

This study seeks to examine the ethical perceptions of elementary school teacher candidates concerning the use of AI. It asks in what contexts they regard the use of AI as a violation of academic ethics and to what extent its application is considered acceptable in academic work. To address these questions, the authors employed the Moral Foundation Theory framework (Graham et al., 2013) in combination with three major ethical theories—deontology, utilitarianism, and virtue ethics (Kühler, Wint, Hillerbrand, & Gimenez-Carbo, 2024)—to analyze the ethical perceptions of prospective elementary school teachers regarding AI.

B. Method

This study employed an Explanatory Sequential Design (see Figure 1). The purpose of using this design is to provide a more in-depth explanation of the quantitative findings regarding prospective teachers' perceptions of AI (Creswell, 2019). The initial phase involved the collection of quantitative data, focusing on two primary areas: (1) student utilization of Artificial Intelligence (AI) in academic contexts, and (2) students' moral judgments regarding AI integration in academic tasks. Following the analysis of the quantitative data, qualitative data were subsequently gathered to provide a more profound understanding of the initial findings. This qualitative dataset was used to elucidate and contextualize the quantitative findings obtained in the preceding phase.

Phase	Procedure	Outcome
Quantitative Data Collection	Conducting a survey on AI usage profiles among teacher candidates Conducting a survey on teacher candidates' ethical perceptions of AI usage in academic work	Numeric data
Quantitative Data Analysis	Analyzing the percentage of AI use by teacher candidates Analyzing the percentage of teacher candidates' ethical perceptions of AI use	Patterns and trends in AI use by teacher candidates Teacher candidates' ethical perceptions of AI use
Qualitative Data Collection	Selecting teacher candidates for an interview Developing an interview protocol Conducting the interview Recording and summarizing responses	11 participants for the interview Interview transcription and notes
Qualitative Data Analysis	Preparing interview transcripts for analysis Coding and thematic analysis	Conceptual model of emergent themes
Integration of Quantitative and Qualitative Findings	Integrating and explaining the quantitative and qualitative findings	Discussion Implications for practices Future research

Figure 1. Sequential Explanatory Design

This research was conducted at the Faculty of Tarbiyah and Teacher Training within Maulana Malik Ibrahim Malang State Islamic University, specifically within the Islamic Elementary School Teacher Education Study Program. The selection of this particular location aligns with the research topic, which aims to investigate the ethical perceptions of elementary school teacher candidates regarding the use of Artificial Intelligence (AI) in academic work.

This research involved Madrasah Ibtidaiyah teacher candidates enrolled in the Islamic elementary school teacher education study program at Maulana Malik Ibrahim Malang State Islamic University. For the quantitative phase, a purposive sampling technique was employed. The criteria for sample determination included: (1) completion

of the Research Methods course, and (2) demonstrated experience in writing scientific papers, specifically in the form of academic papers and research proposals. The students meeting these criteria comprised the cohorts of 2020 (n = 155), 2021 (n = 157), and 2022 (n = 155). Thus, the population in this study was 467 students. Of that number, 62 students agreed to participate in the study. This research was conducted after obtaining informed consent from all participants, in full compliance with the principles of research ethics and data confidentiality protection.

Subsequently, for the qualitative phase, participants for interviews were selected based on the outcomes of the quantitative data analysis. Interviewees were chosen according to the following criteria: (1) demonstrated use of AI in academic coursework, (2) comprehension of AI functionalities, (3) frequency of AI utilization, and (4) stated purpose for employing Generative AI (GenAI). Based on these criteria, a total of 11 students participated in the interviews.

Table 1. Research Instrument Grids

Instrument	Purpose	Target Data	Examples of Questions
Questionnaire	Collecting preliminary data concerning students' AI usage profiles and their perceptions	AI usage profiles and perceptions	What type of AI do you frequently use to complete college assignments? Do you think the use of AI violates academic ethics?
Interview guidelines	Explaining the quantitative findings in greater depth, particularly regarding students' ethical perceptions of AI use	Ethical perceptions of AI use	How much do you know about the code of ethics or academic ethics? What would you do if you found out that your friend was using AI to do their college assignments even though the lecturer prohibited it?

Data collection was executed in two distinct stages: quantitative and qualitative. Quantitative data were gathered through the distribution of online questionnaires developed using Google Forms. The questionnaire consists of 18 items on demographic data, basic knowledge of AI, use of AI, perceptions of AI, and AI code of ethics. Questionnaire dissemination was facilitated via the WhatsApp application. The questionnaire was validated by experts and declared feasible for use. Conversely, qualitative data were collected through semi-structured interviews. These interviews aimed to explore the quantitative findings in greater depth, particularly regarding students' ethical perceptions of AI use. The interview guidelines were developed in consideration of the MFT, as contextualized by Telkamp and Anderson (2022) within their framework (Table 1).

Similarly, the data analysis proceeded through quantitative and qualitative stages. Quantitative involved profiling AI usage percentages and conducting comparative analyses across demographic groups (gender and academic year). Qualitative adhered to a six-phase process: data preparation, coding, thematic development, data presentation, interpretation, and validation findings (Creswell, 2019).

C. Results and Discussion

Results

AI Utilization Profile

Based on data obtained from the questionnaire, the goals of the Islamic elementary school teacher education study program at Maulana Malik Ibrahim Malang State Islamic University, using AI technology, are diverse. As seen in Figure 2, the majority of respondents' goal in using AI is to complete their coursework (53.2%). In second place, there is a goal to answer presentation questions (21%).

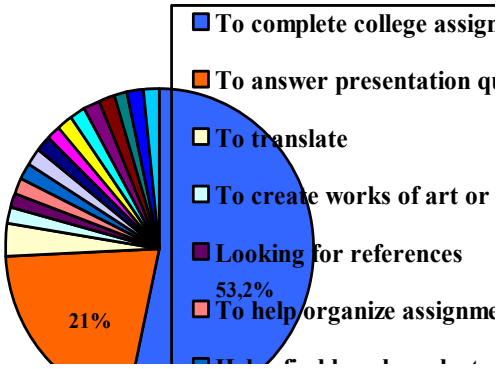

Figure 2. Purpose of AI Utilization

These quantitative findings are further corroborated by the qualitative data derived from interviews with selected participants. As articulated by Participant R1, AI technology significantly facilitated the completion of academic assignments due to its ability to provide more comprehensive explanations than instructors typically offer in a classroom setting. According to R1, not all learning materials were explained well by the lecturer. ChatGPT helped by providing more detailed explanations.

Regarding the type of AI used, the majority of respondents admitted to using ChatGPT, Perplexity AI, and Quillbot. ChatGPT was used as a reference to answer questions from lecturers. As stated by one of the respondents (R3), she often used AI to complete assignments, and sometimes she used ChatGPT to answer lecturers' questions, but only as a reference for answering questions, not as a benchmark for answers.

Still related to the use of AI, based on Figure 3 most respondents (48.4%) always paraphrased tasks sourced from AI. In the second place, some respondents (22.6%) often paraphrased tasks sourced from GenAI. Meanwhile, in the third place, 19.4% of the respondents rarely paraphrased tasks sourced from AI.

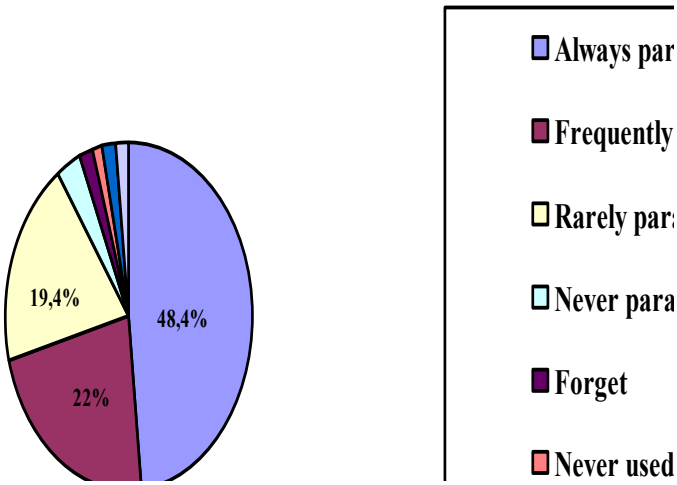

Figure 3. Paraphrasing the results of using AI

Overall, the mixed-methods approach in this study provides a comprehensive understanding of teacher candidates' utilization of AI. Quantitatively, the survey indicates that teacher candidates used AI to complete coursework and answer questions when presenting their work. Our interviews expanded on these findings. Respondents used AI to complete coursework and answer questions because there was some important information that the lecturer did not adequately explain. Therefore, AI provided more detailed information than the lecturer. However, respondents did not entirely rely on the answers provided by AI. They still paraphrased and verified the output from AI. Figure 4 summarizes the findings on AI usage profiles among teacher candidates.

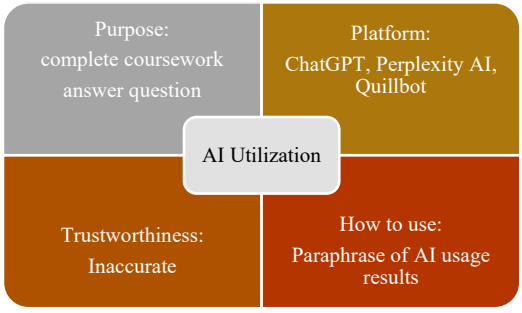

Figure 4. AI Utilization Profile

Ethical Perception of AI

In the context of academic ethics, as shown in Figure 5, most respondents (54.8%) believe that AI technology does not violate academic ethics. In second place, respondents argued that AI technology violates academic ethics (27.4%). In third place, respondents argued that AI technology violates academic ethics (11.3%).

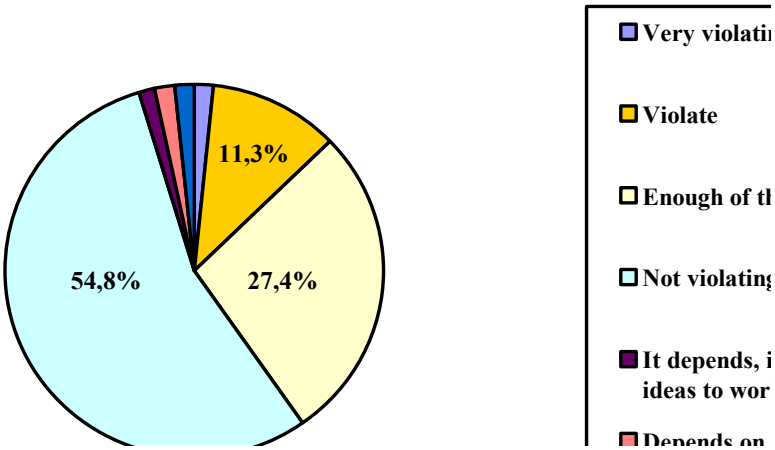

Figure 5. Ethical Perceptions

One of the most dominant themes that emerge from the interviews is "compliance with rules." This theme highlights references to the existence or absence of formal regulations regarding the use of AI in faculties and universities. Respondents often referred to "academic rules," "prohibitions," "written regulations," or "codes of ethics" to justify their views. As stated by R6 and R11, the use of AI is not a violation of academic ethics, because on campus, there is no prohibition on the use of AI, and anyone can also access AI.

Similarly, the interview results also found that all respondents considered using AI to be in line with academic ethics. However, according to them, two conditions for the use of AI can be considered to avoid violating academic ethics. One of them is that the use of AI is 'not excessive', which means that if AI is used only as necessary according to needs, it is considered not to violate academic ethics.

The second theme that emerges is "the consequences and benefits of using AI." Respondents evaluated the use of AI based on the results or benefits they obtained. For example, they argued that the use of AI could help them complete their college assignments better. As stated by respondent R8, AI was not necessarily bad for academic pursuits, as he believed it could be used to find inspiration or innovation. R9 agreed, stating that AI technology was very helpful in completing assignments. Based on his experience, R9 frequently utilized AI applications such as Quillbot and ChatGPT, among others. By using several AI tools, R9 claimed to have obtained relevant and reliable sources of scientific literature.

In line with the data above Figure 6, most respondents (53.2%) believed that using AI technology in coursework does not constitute plagiarism. Secondly, respondents argued that using AI technology in coursework falls under the category of plagiarism (35.5%), as shown in Figure 4. Additionally, most respondents believed that using ideas from AI without providing sources constitutes a form of plagiarism (66.1%). In the second place, respondents argued that using ideas from AI without providing sources is not considered plagiarism (30.6%).

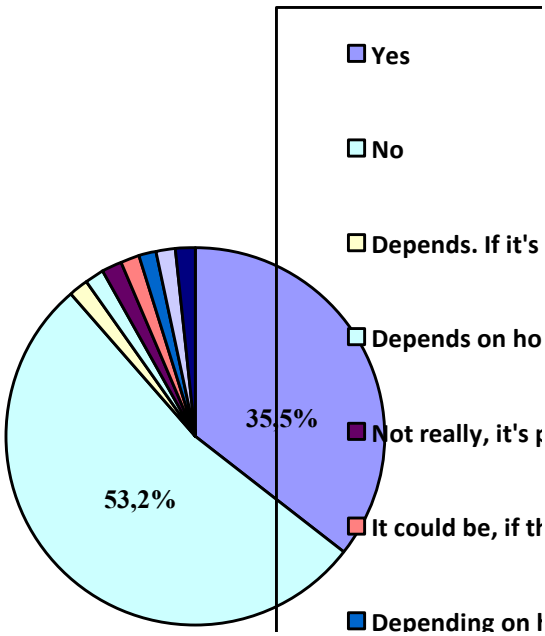

Figure 6. AI Plagiarism Perception

The third theme that emerges is "responsible use." Respondents not only emphasized the importance of clear guidelines and regulations in the use of AI, but also that academic practices through AI should be carried out with a sense of responsibility. When asked about lecturers and students using AI, almost all respondents expressed a favorable opinion. However, note that AI must be within reasonable limits and not used for negative purposes. In addition, the results of AI are used only as a reference, and further research should be conducted to consult more authoritative reference sources. As stated by the R9 respondent, the use of AI was not prohibited, but it required clear sources with existing evidence. Students should not directly copy and paste; instead, they should consult other relevant literature as references.

Regarding policies or regulations on the use of AI in universities (see Figure 7), most respondents (77.4%) argued that there is no policy regulating the use of AI in the faculty environment. In second place, respondents argued that a policy regulates the use of AI in the faculty environment (14.5%).

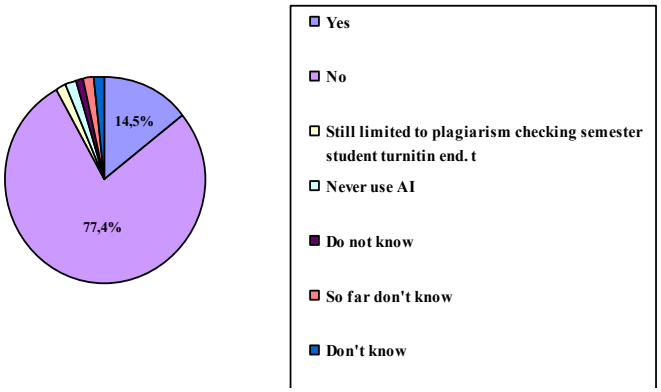

Figure 7. AI Utilization Policy

In the context of academic codes of conduct on AI, the theme that emerges is "regulatory ambiguity and gap". When asked about the code of ethics for using AI, most students responded that they were unaware of the code of ethics for using AI in academic performance. However, some also knew the limits of the rules that must be followed without direct guidance and direction. Some students also noted that many were not equipped with seminars or socialization related to the code of ethics for the use of AI. As stated by R9, in fact, the academic code of ethics at the Faculty of Tarbiyah and Teacher Training within Maulana Malik Ibrahim Malang State Islamic University was adequate in other aspects, but this was not the case for AI. A code of ethics for the use of AI was still missing.

Although formal regulations regarding the use of AI in faculties and study programs do not yet exist, some lecturers have taken the initiative to make their own regulations for learning. As stated by respondent R1, some lecturers were very supportive of students using AI technology. Furthermore, respondent R4 suggested that lecturers should provide explanations about the use of AI, students should ensure that AI is used to assist learning, and devices should be regulated and monitored.

Based on the themes that emerge from the qualitative analysis, the ethical perceptions of elementary school teacher candidates in this study can be categorized into three main perspectives: deontology, utilitarianism, and virtue ethics. As shown in Figure 8, the theme of "compliance with rules" aligns with the theory of deontological ethics, where the morality of an action is judged based on its adherence to rules. In the context of MFT, this is directly related to the foundation of authority/respect, which emphasizes respect for hierarchy, tradition, and compliance with rules set by authority.

The theme of "the consequences and benefits of using AI" reflects utilitarianism, where the morality of an action is judged based on its usefulness. In MFT, this is highly relevant to the foundation of Care/Harm, which focuses on protecting individuals from harm and promoting well-being. The perception that AI can "find inspiration or innovation" indicates a focus on improving the quality or ease of learning.

The theme of "responsible use" reflects the ethics of virtue because it focuses on individual character and virtue. The prohibition of "copy and paste" and the encouragement to "read other literature" reflect values such as honesty, perseverance, and intellectual integrity. In MFT, this can be linked to the foundations of Justice/Fraud (avoiding academic fraud) and Sanctity/Degradation, which reflect efforts to maintain the purity or integrity of the learning process and scientific results.

The theme of "regulatory ambiguity and gap" also reflects deontology because it is closely related to authority. This gap highlights the challenge of applying deontological principles when clear rules from authority figures (MFT: authority/respect) are unavailable or insufficient. Support from lecturers also shows how authority figures can influence norms and practices that develop in academic environments, filling the void left by formal regulations.

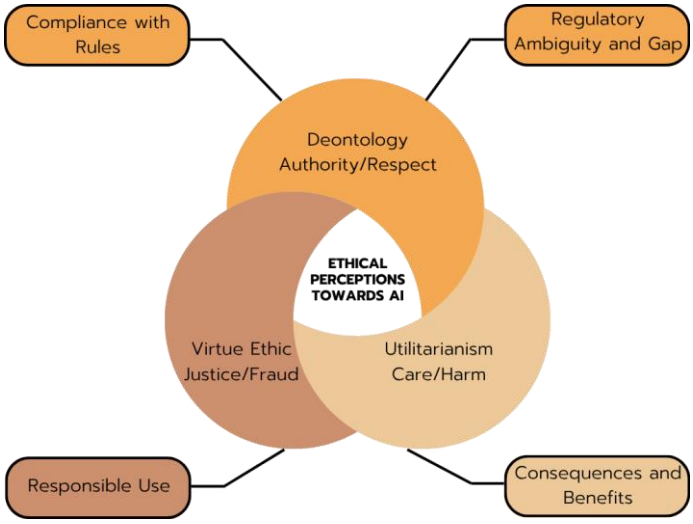

Figure 8. Ethical Perceptions of AI by Teacher Candidates

Discussion

AI Utilization Profile

The findings indicate that while the overall utilization of AI tools by teacher candidates in their general learning activities remains relatively nascent, their application demonstrates a notable concentration within academic tasks, specifically for assignments and final projects. Teacher candidates used AI to complete coursework and answer questions when presenting their work. The interviews expanded on these findings. Respondents used AI to complete coursework and answer questions because there was some important information that the lecturer did not adequately explain. AI provides more detailed information than the lecturer. However, respondents did not entirely rely on the answers provided by AI. They still paraphrased and verified the output from AI.

The study also illuminates the primary motivations behind the utilization of AI. Teacher candidates predominantly leveraged AI to enhance the efficiency of compiling assignments and final projects, particularly in sourcing references and generating initial ideas. Concurrently, AI was also utilized to simplify and clarify abstract or complex concepts, indicating its perceived utility as a cognitive aid. This pattern of use suggests that teacher candidates viewed AI primarily as a utilitarian tool for enhancing productivity and supporting comprehension in their academic endeavors.

The findings provide empirical evidence regarding prospective teachers' perceptions of Artificial Intelligence (AI) integration in educational settings, particularly in relation to academic assignments such as coursework and final projects. Earlier research has shown that AI applications, including ChatGPT, are considered useful by both students and educators for enriching the learning process; however, concerns persist regarding their ethical implications. For example, (Sullivan, Kelly, & McLaughlan, 2023) reported that although students recognized the advantages of using such technologies, they also acknowledged the need for careful and responsible use. Consistently, (Chan & Hu, 2023) emphasized that AI can support personalized learning opportunities;

nevertheless, students remain cautious about the ethical challenges associated with its use, including issues of accuracy and the preservation of academic integrity.

Our findings suggest that teacher candidates share a similar utilitarian view of AI, primarily utilizing it as a tool to enhance productivity and simplify academic tasks. It is consistent with (Dimitrijević & Devedžić, 2021), who discuss how AI is often employed for specific, well-defined tasks within educational settings, such as information retrieval and idea generation. These tasks are generally seen as instrumental to achieving academic objectives. However, the participants in this study also expressed concerns about the broader implications of AI, similar to the views raised by (Farazouli et al., 2024), who suggested that instructors are becoming increasingly critical of AI-generated work, indicating a growing skepticism toward the potential for academic over-reliance on technology.

Ethical Perceptions of AI Utilization

The ethical perceptions of elementary school teacher candidates in this study are categorized into three ethical frameworks: deontology, utilitarianism, and virtue ethics. The theme of "compliance with rules" aligns with deontological ethics, which judges actions based on adherence to rules, reflecting the importance of authority and tradition in MFT. The theme of "the consequences and benefits of using AI" reflects utilitarianism, emphasizing the usefulness of actions to promote well-being, in line with MFT's Care/Harm foundation. The theme of "responsible use" aligns with virtue ethics, focusing on individual character and values like honesty and intellectual integrity, which are connected to the MFT foundations of Justice/Fraud and Sanctity/Degradation. The theme of "regulatory ambiguity and gap" also ties to deontology, highlighting challenges in applying rules when authority is unclear, with support from lecturers serving as an informal authority to fill the regulatory gap.

The use of AI in higher education raises significant ethical challenges. While this technology offers numerous benefits in terms of efficiency and accessibility, there are significant concerns about its impact on academic ethical values, particularly regarding plagiarism and the authenticity of academic work (Cotton et al., 2024). In the AI era, the definition of plagiarism should be expanded to include the use of AI technology, particularly when ideas generated by AI are not correctly attributed. Teacher candidates in this study believed that the outcomes of AI utilization were the key factor in its ethical perception.

As a group, these prospective educators possess a well-developed ability to discern the moral implications of AI integration. This finding is consistent with the literature, which emphasizes the importance of robust moral reasoning skills in navigating complex modern challenges (Farah, 2021). It underscores that ethical judgment is a critical foundation for forming nuanced ethical perceptions towards emerging technologies, such as AI high level of ethical judgment likely enables teacher candidates to move beyond simplistic views of AI, allowing them to appreciate its benefits while simultaneously recognizing and articulating its potential pitfalls. It contributes to their overall positive perception, not as blind acceptance, but as an informed ethical stance.

This study suggests that teacher candidates' ethical perceptions of AI utilization align with the principles of utilitarian, deontological, and virtue ethics. These three ethical frameworks can coexist because they address different, yet complementary, aspects of ethical decision-making. Utilitarian ethics focuses on the consequences of an action, specifically the benefits of AI use, such as enhanced efficiency and productivity in academic work. Teacher candidates in this study emphasized the practical benefits that AI offers, aligning with utilitarian principles that prioritize actions based on their outcomes (Graham et al., 2013). Deontological ethics also plays a significant role in perceptions of AI ethics. This ethics focuses on adherence to rules and duties without considering the consequences. Teacher candidates suggested that AI use cannot be considered unethical unless explicitly prohibited by policy. This viewpoint aligns with the work of (Haidt, 2013), who discusses how adherence to rules and respect for authority are central to moral decision-making, especially within institutions.

The role of virtue ethics, which emphasizes individual character and the cultivation of virtues such as honesty, integrity, and responsibility, was also evident. Teacher candidates demonstrated a strong commitment to these values by emphasizing the need for "responsible use" of AI. It aligns with (Miles et al., 2022), who noted that academic honesty and integrity are essential components of ethical behavior, especially in higher education, where character and personal responsibility are crucial in maintaining the authenticity of academic work. These values are also reflected in the MFT foundations of Justice/Fraud and Sanctity/Degradation, where the focus is on virtues that protect the integrity of the academic process.

Moreover, the absence of clear AI policies poses significant ethical challenges. Without formal guidelines, there is an increased risk of misuse by students and lecturers, undermining academic integrity (Miron et al., 2021). (Davis (2022) emphasize that institutions must create transparent and comprehensive regulations to ensure academic integrity and provide clear guidelines on how AI technology should be used responsibly. As AI's role in higher education expands, the need for clear policies is becoming more urgent (Luo, 2024). Thus, effective regulations can help both educators and students use AI responsibly without compromising academic values, further supporting the utility of clear ethical frameworks.

The importance of policies regulating AI usage is reinforced by (Perkins & Roe, 2024), who argue that educational institutions must design policies that govern the ethical use of AI in academic assignments. These policies should encompass both technical aspects, such as the use of AI applications, and address ethical concerns to prevent academic misconduct. Furthermore, policies should leverage AI's potential to enhance learning by supporting critical thinking and creativity, as emphasized by (Alexander, Savvidou, & Alexander, 2023). This broader perspective on AI's role in education aligns with the views of (Telkamp & Anderson, 2022), who highlight the importance of incorporating moral foundations that reflect both the consequences and duties associated with technological integration.

(Cotton et al., 2024) also argue that AI regulations in education should evolve dynamically, incorporating both technical and ethical guidelines that are regularly updated to match technological advancements. These scholars emphasize that AI should not only be a tool for technical purposes but also serve to cultivate virtues and support cognitive and moral development in students, which is essential in a rapidly changing technological landscape.

Higher education institutions need to recognize that AI regulation encompasses not only the prevention of abuse but also the positive utilization of technology (Davis, 2022). The policies implemented must include guidelines on how to utilize AI to enhance the quality of education, such as assisting lecturers in compiling learning materials, providing faster feedback to students, and streamlining administrative processes (Farrokhnia, Banihashem, Noroozi, & Wals, 2024). AI can be a very valuable tool in education if used correctly, but without proper regulation, this technology can also pose significant risks. Additionally, the prevention of academic cheating using AI must be done persuasively to foster academic integrity among students (Kumar, Verma, & Aggarwal, 2023).

The current study offers valuable insights into the ethical perceptions of future educators regarding the use of AI. It contributes to the growing discourse surrounding the integration of AI into educational contexts, particularly in relation to the ethical implications of its use. The combination of utilitarian, deontological, and virtue ethics offers a comprehensive approach to understanding how teacher candidates balance the benefits of AI with the need for responsible and ethical practices. The findings underscore the importance of developing robust, clear, and dynamic ethical guidelines and policies that ensure AI is used in a way that upholds academic integrity, fosters critical thinking, and promotes personal responsibility.

Although the findings provide deeper insights into ethical perceptions of AI, this study has several limitations. First, the number of samples in the quantitative stage is too small, namely 62 out of 467 individuals (13.27%), rendering the data unrepresentative of the population. This occurs because the questionnaires were distributed online, making it difficult for researchers to monitor participation and ensure completion. Future research should increase the sample size to enhance the representativeness of the results. Second, the research sample was drawn from only one location, which limited the diversity of the data. Subsequent studies should involve multiple universities as research sites to obtain more comprehensive findings. Third, the interviews were conducted online because the study took place during the semester break. This condition may have prevented the interview data from being sufficiently in-depth, as the interaction was less intensive. Future studies should conduct offline interviews and employ in-depth techniques to collect more comprehensive data. Fourth, the use of surveys only captured respondents' perceptions regarding the use of AI. Future research could adopt an experimental design at the quantitative stage to generate more robust findings.

D. Conclusion

This study examines the ethical perceptions of Madrasah Ibtidaiyah teacher candidates regarding the use of Artificial Intelligence (AI) in academic contexts, with a particular focus on issues of academic integrity and attribution. By applying Moral Foundation Theory (MFT) in conjunction with ethical frameworks such as utilitarianism, deontology, and virtue ethics, the research aims to understand how these candidates assess AI's ethical implications in education.

Given these findings, teacher education programs must play a proactive role in preparing educators to navigate the ethical complexities of AI. To strengthen the integration of AI in academic contexts, teacher education programs should consider implementing specific ethical guidelines to ensure responsible use of AI. For example, programs could include an AI ethics module that directly addresses the following topics: ethical engineering of AI prompts, techniques for paraphrasing AI-generated content, verification of AI output, limitations on AI use in academic writing, transparency in the use of AI, and the necessity of human involvement at the beginning and end of work involving AI. Furthermore, offering real-world examples of ethical AI use from leading universities could provide a practical framework for teacher candidates to apply these principles in their own practice.

The limitations of this study include the small number of respondents, as the questionnaires were distributed online and data were collected from only one location. In addition, the interviews were conducted online during the mid-semester break, which created less-than-ideal conditions. Moreover, the survey design captures only respondents' perceptions. Future research should increase the sample size to improve representativeness, involve multiple universities as research sites to generate more comprehensive data, conduct interviews offline, and employ in-depth interview techniques. Finally, the use of an experimental design in the quantitative stage should be considered to produce more robust findings.

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