

CHARACTER EDUCATION BUILDS AI ETHICS, DIGITAL INDEPENDENCE IN VOCATIONAL STUDENTS

Radif Khotamir Rusli^{1*}, Zahra Khusnul Lathifah¹, Warizal¹

¹ Universitas Djuanda, Indonesia

*Corresponding Email: radif.kr@unida.ac.id

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ABSTRACT

This study investigates how character education influences the development of digital independence and ethical awareness among students at SMK Amaliah as they engage with AI-powered learning environments. As reliance on AI tools like ChatGPT increases, concerns about academic integrity, critical thinking, and ethics have arisen. The research aims to create strategies for blending character education into vocational training, helping students use AI responsibly, maintain academic honesty, and build independent problem-solving skills. Employing a mixed-method approach, the study combines surveys of 200 students with qualitative analysis of character education initiatives within Islamic education. The quantitative data sheds light on students' AI usage habits and their ethical understanding, while the qualitative aspect evaluates how character education programs influence responsible digital behavior. Findings reveal that although 75% of students use AI tools for academic tasks, only 40% have a clear grasp of plagiarism and ethical AI use. Character education plays a key role in fostering honesty, responsibility, and autonomous learning, reducing automation bias and uncritical AI reliance. This is because students involved in structured ethical discussions and guided AI use develop greater awareness of digital ethics and critical thinking. Additionally, character education encourages accountability and self-regulation by integrating moral reasoning with technological skills, ensuring students do not depend solely on AI-generated content without personal intellectual engagement. The study highlights the importance of embedding AI ethics into vocational curricula and training teachers to strengthen digital literacy and ethical decision-making. Its findings support educational practices that prepare students to handle AI responsibly and uphold academic integrity.

Keywords: Academic Integrity, AI Ethics, Critical Thinking, Digital Independence, Vocational High School

INTRODUCTION

The rapid advancement of Artificial Intelligence (AI) has transformed various sectors, including education. Vocational high school students, particularly those in technology-related fields, are increasingly exposed to AI tools and platforms. Recent studies highlight the dual impact of AI on education: while it offers opportunities for enhanced learning and efficiency, it also raises concerns about academic integrity, plagiarism, and the erosion of critical thinking skills (Gerlich, 2025; Zhai et al., 2024; Al-Zahrani, 2024). Other studies have revealed that vocational students frequently utilize AI tools, such as ChatGPT and other generative AI platforms, to complete assignments and projects (Arjona-Giner et al., 2023; Forman et al., 2023; Von Garrel & Mayer, 2023; Shu, 2024). These tools are seen as efficient solutions for generating content, solving problems, and even automating repetitive tasks (Zhai et al., 2024). However, this reliance often leads to a lack of critical engagement with the material, as students tend to accept AI-generated outputs without verification or deeper analysis (Wood & Moss, 2024).

The over-reliance on AI has been linked to a decline in critical thinking and analytical reasoning among vocational students. Studies indicate that students increasingly favour quick, AI-generated solutions over slower, more deliberate problem-solving methods (Zhai et al.,

2024). This shift undermines their ability to develop independent thinking and evaluate the validity of information, which are crucial skills in vocational education (Yan & Liu, 2024).

Moreover, ethical issues, such as plagiarism and academic dishonesty, pose significant challenges associated with the use of AI. Many students are unaware of the ethical implications of submitting AI-generated content as their own work (Gustilo & Lapinid, 2024). This lack of awareness is compounded by the difficulty in detecting AI-generated content, which can lead to unintentional academic misconduct (Nguyen, 2024).

Vocational students sometimes tend not to fully understand the limitations of artificial intelligence (AI)-based tools. They tend to assume that AI results are always correct. On the contrary, the content can be inaccurate, biased, or misleading (Ali et al., 2021). Lack of critical thinking skills and digital literacy makes it difficult for students to assess the reliability of the information they use. As a result, they are likely to accept and repeat errors without realizing it, which can reduce the quality of their learning and the originality of their work. Therefore, a critical understanding of AI needs to be instilled so that the technology can be used reflectively, not simply as a tool for instant answers.

According to Borenstein & Howard (2021), the importance of integrating ethical education into vocational curricula is emphasized to address these challenges. By teaching students about the ethical implications of AI, including issues such as data privacy, algorithmic bias, and transparency, educators can help students use AI tools responsibly and ethically (Zhao et al., 2024). The use of AI tools often encourages cognitive shortcuts, where students rely on pre-formulated answers instead of engaging in deeper learning. This phenomenon, known as automation bias, can stifle creativity and innovation, as students may become less motivated to identify alternative solutions or think critically about problems (Ward et al., 2024).

Furthermore, the widespread use of AI tools has raised concerns about academic integrity in vocational education. Studies highlight the need for institutions to implement policies and tools to detect AI-generated content and ensure that students are held accountable for their work. However, this also requires balancing enforcement with education to foster a culture of integrity (Wood & Scott, 2024). In underprivileged contexts, vocational students face additional challenges in accessing and understanding AI tools. Limited digital literacy and infrastructure gaps exacerbate the digital divide, making it difficult for these students to use AI effectively and ethically. To address these barriers, targeted interventions are necessary, such as community-based technology hubs and partnerships with local stakeholders (Zhao et al., 2024).

Educators play a crucial role in guiding students on the responsible use of AI. Studies suggest that teachers require training to effectively integrate AI tools into their teaching methods and help students develop the essential skills to evaluate AI-generated content critically. This includes fostering a mindset of scepticism and encouraging students to question the reliability of AI outputs (Ying et al., 2025; Treve, 2024). Researchers encourage further studies to investigate the long-term effects of AI use in vocational education. Particularly, policymakers are urged to develop clear guidelines and ethical frameworks for the integration of AI, ensuring that students are equipped with the skills and knowledge to navigate the complexities of AI-driven learning environments. This includes promoting AI literacy and fostering a culture of ethical awareness among students and educators alike (Yan & Liu, 2024).

Despite the growing integration of AI in education, a significant gap remains in research addressing how character education can equip students with the moral and ethical foundations necessary to navigate the AI era responsibly. This study aims to analyze the role of character education, particularly through Islamic education, in fostering digital independence and ethical awareness among vocational high school students. The research question is formulated as follows: How does character education at SMK Amaliah influence students' readiness to use AI platforms ethically and independently?

This research is crucial in shaping the future of education by bridging the gap between character education and digital literacy. As Artificial Intelligence (AI) continues to reshape industries and daily life, students must not only develop technical competencies but also cultivate ethical awareness (Burga & Damopolii, 2022), critical thinking (Yasin & Khasbulloh, 2022), and responsible digital citizenship (Nugraha et al., 2024). By integrating character education (Syarnubi et al., 2021) with digital literacy, this study ensures that students are not just proficient in using AI-driven technologies but are also equipped with the moral and intellectual frameworks necessary to navigate the ethical dilemmas and societal implications that accompany technological advancements. This approach cultivates well-rounded individuals who can engage with AI responsibly, making informed decisions that positively contribute to society.

Finally, the impact of this research extends beyond individual student development, influencing the broader educational landscape and workforce preparedness. By embedding character education within digital literacy curricula, schools can cultivate a generation of future leaders who are both technologically adept and ethically grounded (Xu et al., 2025). This holistic approach enhances not only students' adaptability to an AI-driven world but also the resilience of educational systems in fostering socially responsible innovation. In the long term, this research can inform policy decisions, curriculum development, and teacher training programs, ensuring that education remains relevant and responsive to the evolving demands of the digital era.

METHOD

This study employs a mixed-methods design to holistically investigate how character education influences the ethical and independent use of AI by vocational students. The design integrates quantitative surveys and qualitative analyses, ensuring triangulation of data and a robust understanding of the interplay between moral values and technology adoption.

The quantitative phase involves surveying 200 students from grades XI and XII at the Vocational High School of SMK Amaliah, selected via stratified random sampling from a population of 890. The stratification ensures proportional representation of both grades. The sample size for each stratum is calculated using the formula:

$$n_h = \left(\frac{N_h}{N} \right) \times n \quad (1)$$

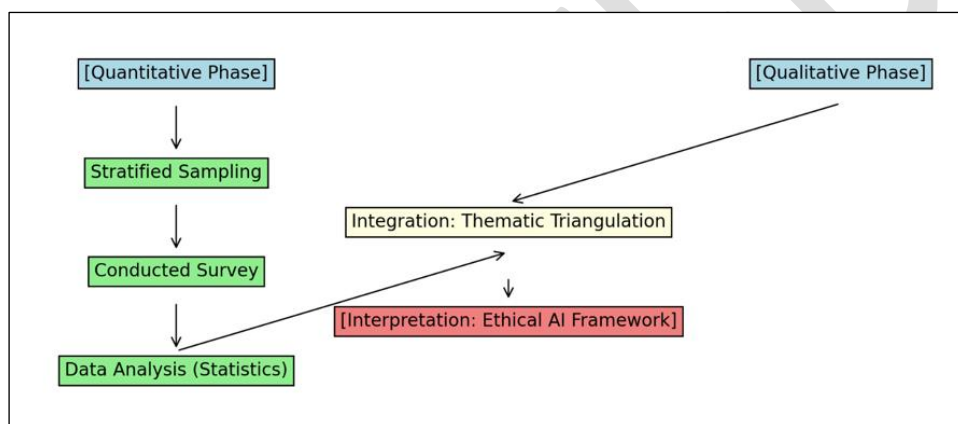
Where n_h = sample size for stratum h , N_h = population of stratum h , N = total population (890 students), and n = total sample (200), which grade XI has 450 students and grade XII has 440, the sample distribution would be $n_{XI} = 450/890 \times 200 \approx 101$ and $n_{XII} \approx 99$.

The survey measures three variables: (1) perceptions of AI platforms (i.e., ChatGPT, Google Bard or Gemini, Socratic by Google, Quillionz, Wolfram Alpha, Adobe Firefly, Canva AI Magic Design, Runway ML, DeepL, Murf AI, GitHub Copilot, AWS Educate AI, Machine Learning, AutoCAD AI, Siemens NX AI, IBM Watson AI), (2) authentication practices (i.e., cross-checking AI outputs, Explainability and Interpretability Testing, using techniques like SHAP or LIME, Bias and Fairness Audits, Adversarial Testing, Human-in-the-Loop Validation, Data Provenance Verification, Model Performance Benchmarking, Ethical and Regulatory Compliance Checks, Continuous Learning and Model Updating, Anomaly Detection Systems, and others), and (3) strategies to reduce plagiarism (i.e., citation tools, Plagiarism Detection Software like Turnitin, Grammarly, or Copyscape; Paraphrasing and Summarization Techniques, Clear Academic Integrity Policies, or others). Data is analyzed using descriptive statistics and inferential tests. Since the data are on a Likert scale (ordinal), non-parametric tests,

such as the Kruskal-Wallis test, might be appropriate for comparing groups. However, the data is treated as interval, so it uses Spearman Correlation (ρ), Kruskal-Wallis Test (H), and Mean Comparison (Strict vs. Lenient Policies) by ANOVA.

Additionally, the qualitative phase examines the characteristics of SMK Amaliah's education initiatives, particularly in Islamic education. Then, the data is collected via: (1) Teacher interviews: Semi-structured discussions on curriculum design and moral pedagogy. (2) Observations: Classroom activities, co-curricular programs, and extracurricular projects. (3) Policy analysis: Review of school documents emphasizing values like honesty (*amanah*) and responsibility (*taklif*). Thematic analysis is applied to identify patterns, such as how Islamic principles are embedded in AI-related assignments.

The mixed-methods approach combines the strengths of both paradigms. Both quantitative data reveal trends (e.g., 60% of students cross-check AI outputs), and qualitative insights explain why these trends exist (e.g., school policies that promote critical thinking). At the same time, convergence occurs during data interpretation, where qualitative narratives provide context for statistical results.



Source: data processed by researcher

Figure 1. Mixed-Methods Design Flowchart

As portrayed in Figure 1, this study utilizes a mixed-methods approach, integrating both quantitative and qualitative phases to develop an Ethical-AI Framework. In the quantitative phase, the study begins with stratified sampling, ensuring a diverse and representative selection of participants. A survey is then administered to collect numerical data, which is subsequently analyzed using statistical methods to identify patterns and trends. The qualitative phase is interwoven through an integration process called thematic triangulation, where qualitative insights are used to complement and validate the statistical findings. This involves revisiting the data and incorporating thematic analysis to deepen the interpretation. The integration process strengthens the study by cross-verifying quantitative results with qualitative perspectives, enhancing reliability and contextual understanding. Finally, the combined insights from both phases contribute to the interpretation stage, where an Ethical-AI Framework is developed, ensuring that AI systems align with ethical standards and societal needs.

The validity of findings is strengthened through:

$$\text{Validity} = \alpha_{\text{quant}} + \beta_{\text{qual}} + \gamma_{\text{integration}} \quad (2)$$

where α = statistical reliability, β = thematic depth, and γ = coherence between methods.

This dual approach addresses limitations of single-method studies. For instance, while surveys quantify AI dependency, interviews reveal how Islamic teachings mitigate misuse. Diagrams, such as Figure 1, clarify the research workflow, and formulas formalize the sampling and validation processes. Together, they provide a replicable model for studying the role of character education in AI-driven environments.

RESULTS AND DISCUSSION

Insights from Recent Research on Plagiarism and Cheating in AI Use

Experts highlight that AI tools like ChatGPT have introduced a new form of academic dishonesty termed AI-giarism (Chan, 2024), where students misuse generative AI to produce work without proper attribution or critical engagement (Eaton, 2024). This phenomenon blurs traditional definitions of plagiarism, as AI-generated content often lacks traceable sources, making it harder to detect and address (Taloni et al., 2024). For vocational students, whose training emphasizes practical efficiency, the temptation to rely on AI for assignments risks undermining the authenticity of their learning outcomes (Cassinadri, 2024). Studies reveal that 30% of high school and college students admit to using AI tools like ChatGPT for homework, signalling a widespread normalization of this behaviour (Pudasaini et al., 2024).

The convenience of AI-driven solutions has led to a concerning decline in critical thinking skills among vocational learners. Experts warn that students increasingly prioritize speed over depth, accepting AI outputs without verification (Birks & Clare, 2023). For example, GPT-4 can generate plagiarism-free scientific abstracts that evade detection tools, fostering a false sense of academic rigor (Taloni et al., 2024). This over-reliance creates “automation bias,” where students bypass analytical processes, stifling creativity and independent problem-solving (Birks & Clare, 2023). Such trends are particularly acute in vocational education, where project-based assessments are vulnerable to AI misuse (Pudasaini et al., 2024).

To combat AI-giarism, experts advocate for integrating ethical education into curricula, emphasizing transparency and accountability in the use of AI. The European Network for Academic Integrity (ENAI) recommends policies that require students to declare the use of AI assistance and understand its limitations, including algorithmic biases (Foltynek et al., 2023). For instance, Chinese students’ perceptions of AI-triggered plagiarism vary by discipline, with STEM learners more likely to justify the use of AI for technical tasks than humanities students (Zhang et al., 2024). Such disparities underscore the need for tailored ethical training that addresses discipline-specific norms (Foltynek et al., 2023).

The ambiguity of AI’s role in authorship complicates plagiarism frameworks. While some argue that AI-generated content lacks “intellectual theft” since no human author is directly copied, submitting such work still violates academic integrity principles (Eaton, 2024). Many institutions are struggling to update their policies; for example, only 40% of vocational students in studies demonstrate a clear understanding of the consequences of plagiarism, highlighting gaps in institutional communication (Chan, 2024). The ENAI stresses the importance of redefining “unauthorized content generation” to include AI misuse, ensuring policies evolve alongside technology (Foltynek et al., 2023).

Current AI-detection tools, such as Originality.AI, face several significant limitations, including false positives and susceptibility to evasion techniques. For example, paraphrasing tools can “humanize” AI-generated text, reducing detection scores by 60% (Taloni et al., 2024). Experts caution against over-reliance on detection, advocating instead for prevention-focused strategies, such as designing assessments that require personal reflection or in-person demonstrations (Harvard College, 2025; Birks & Clare, 2023). Harvard’s guidelines, for instance, suggest oral defences or process journals to ensure authentic student engagement (Harvard College, 2025).

The path forward requires a dynamic balance between leveraging AI’s potential and upholding academic rigor. While progressive frameworks, such as the ENAP’s recommendations, emphasize adaptable policies, educator training, and student literacy programs (Foltyneket et al., 2023). For vocational education, this might involve workshops on ethical AI use in technical projects or collaborative assignments where AI aids brainstorming but not final outputs (Harvard College, 2025; Gulumbe et al., 2024). As AI evolves, continuous dialogue among educators, policymakers, and students is critical to fostering a culture of integrity while preparing learners for a tech-driven workforce (Foltynek et al., 2023; Gulumbe et al., 2024).

This synthesis underscores the urgency of addressing AI-giarism through holistic strategies that blend ethical education, policy innovation, and pedagogical adaptation.

Findings on Students’ AI Usage

This study examines three variables: perceptions of AI platforms, authentication practices, and strategies to mitigate plagiarism. These variables are collected through data from teachers and students. Descriptive statistics summarise trends, while inferential statistics analyze relationships and determine significance. The datasets comprise Likert-scale responses, categorical preferences, and qualitative insights, allowing for a comprehensive evaluation of AI integration in an educational context grounded in Islamic values.

Among 200 students, ChatGPT emerged as the most preferred AI platform (63.2%), followed by Google Bard/Gemini (21.7%) and Canva AI (15.1%). Niche tools, such as GitHub Copilot and Adobe Firefly, were used less frequently (<5%). Gender differences were notable: 68% of female students favored ChatGPT, while males showed slightly higher diversity, with 12% using engineering-focused tools (e.g., AutoCAD AI). Descriptive statistics highlight ChatGPT’s dominance, suggesting its accessibility and versatility drive adoption.

Table 1. Perception of AI Platforms

Category	Metric	Students (n=200)	Teachers (n=25)
Preferred AI Platform	Most Frequent Platform (%)	ChatGPT (63.2%), Google Bard/Gemini (21.7%), Canva AI (15.1%)	Teachers focused on ethical integration, not platform preference
Gender Differences	Platform Preference by Gender	Females: ChatGPT (68%), Males: ChatGPT (58%) + other Engineering Tools (12%)	N/A
Ethical Alignment	Mean Rating (1-5)	N/A	4.6 (SD=0.7) – Strong agreement on Islamic ethical guidelines for AI use

Based on the field data shown in Table 1, the analysis of Perception of AI Platforms reveals distinct trends among students and teachers. Among 200 students, ChatGPT emerged as the most preferred AI platform, with 63.2% of students favouring it, followed by Google Bard/Gemini (21.7%) and Canva AI (15.1%). Gender differences were notable, with 68% of female students preferring ChatGPT compared to 58% of males, who also showed a higher inclination toward engineering-focused tools, such as GitHub Copilot and AutoCAD AI (12%). On the other hand, 25 teachers did not express specific platform preferences but emphasized the ethical integration of AI with Islamic values. Teachers rated the alignment of AI use with Islamic ethical guidelines highly, with a mean score of 4.6 (SD = 0.7) on a 5-point scale, indicating strong agreement that Islamic education helps differentiate between positive and negative AI applications. This highlights an apparent dichotomy: while students focus on

practical AI tools for academic tasks, teachers prioritize ethical frameworks to guide AI usage in alignment with religious principles.

Table 2. Authentication Practices

Category	Metric	Students (n=200)	Teachers (n=25)
Checking AI Accuracy	Mean Rating (1-5)	3.9 (SD=1.1) – Moderate engagement in cross-referencing AI outputs	N/A
Ethical Considerations	Mean Rating (1-5)	3.7 (SD=1.2) – Variability in ethical awareness	N/A
Proactive Monitoring	Mean Rating (1-5)	N/A	4.5 (SD=0.6) – Teachers emphasize monitoring AI use
Advanced Techniques	Frequency (%)	N/A	37.5% mentioned SHAP/LIME or adversarial testing

The analysis of Authentication Practices (Table 2) highlights a moderate level of engagement among 200 students in verifying AI-generated outputs. Students reported a mean rating of 3.9/5 (SD = 1.1) for Checking AI Accuracy, indicating that they occasionally cross-reference AI results with other sources, although inconsistency exists. Ethical considerations scored slightly lower, with a mean of 3.7/5 (SD = 1.2), reflecting variability in awareness of ethical implications, such as plagiarism risks or data bias. This suggests that while students recognize the need to validate AI outputs, their ethical discernment remains uneven, potentially due to gaps in training or a prioritization of convenience over rigour. For instance, some students may rely heavily on AI without critically assessing its limitations, while others demonstrate cautious scepticism.

In contrast, 25 teachers emphasized the proactive monitoring of AI use, scoring a mean of 4.5/5 (SD = 0.6), underscoring their commitment to overseeing student interactions with AI tools. However, only 37.5% of teachers reported employing advanced technical methods, such as SHAP/LIME (tools for interpreting AI decision-making) or adversarial testing (stress-testing AI robustness), revealing a reliance on traditional oversight rather than cutting-edge techniques. This gap suggests that while teachers prioritize monitoring, through policies such as device restrictions or plagiarism checks, they may lack the necessary training or resources to integrate sophisticated authentication frameworks effectively. For example, manual checks and Turnitin remain staples, whereas methods like algorithmic transparency audits are underutilized. Bridging this divide could enhance both ethical accountability and technical rigor in AI-driven education.

Table 3. Strategies to Reduce Plagiarism

Category	Metric	Students (n=200)	Teachers (n=25)
Originality Checks	Mean Rating (1-5)	3.9 (SD=1.1) – Moderate reliance on originality checks	N/A
Use of Plagiarism Tools	Frequency (%)	25% consistently used citation tools	62.5% mentioned Turnitin or similar tools
Habitual Honesty Programs	Frequency (%)	N/A	75% emphasized habitual honesty

The data in Table 3 reveal distinct perspectives between students and teachers regarding strategies for reducing plagiarism. Students exhibit moderate reliance on originality checks (Mean = 3.9, SD = 1.1), indicating awareness but inconsistent application. Only 25% consistently use citation tools, suggesting gaps in citation practices. In contrast, 62.5% of teachers utilize plagiarism detection tools,

such as Turnitin, highlighting a greater emphasis on technological verification. Additionally, 75% of teachers stress the importance of habitual honesty programs, underscoring the need for proactive ethical education. These findings suggest that while technological tools are valued, fostering academic integrity through education remains crucial.

Table 4. Statistic Inferential

Category	Metric	Students (n=200)
Correlation: Teacher Influence on Students	Spearman Correlation (ρ)	$\rho=0.32$ ($p=0.03$) – Teachers’ ethical emphasis linked to student awareness
Class Differences	Kruskal-Wallis Test (H)	$H=14.2$ ($p=0.02$) – Seniors (XII) scored higher in authentication practices
Policy Enforcement	Mean Comparison (Strict vs. Lenient Policies)	4.3 vs. 3.7 ($p=0.04$) – Strict policies linked to higher anti-plagiarism scores

The results of the inferential statistics in Table 4 show several significant findings. To begin with, the Spearman Correlation ($\rho = 0.32$, $p = 0.03$) indicates a moderately positive relationship between teachers’ emphasis on ethical behaviour and students’ awareness of AI ethics. This suggests that teachers play a crucial role in shaping students’ understanding of ethical AI practices. When educators prioritize ethical discussions and integrate them into their teaching, students are more likely to develop a deeper understanding of the importance of ethical considerations in AI development and its applications. This finding highlights the significance of teacher influence in cultivating ethical mindsets among students, particularly in the context of emerging technologies such as AI.

Furthermore, the Kruskal-Wallis Test ($H = 14.2$, $p = 0.02$) highlights significant differences in ethical practices across different class levels, with seniors (Grade XII) scoring higher in authentication practices compared to their younger peers. This suggests that as students progress through their education, they become more adept at understanding and implementing ethical behaviours, such as proper authentication and originality in their work. The higher scores among seniors may reflect the cumulative impact of character education over time, as well as their increased maturity and exposure to ethical dilemmas in academic and real-world contexts. This finding emphasizes the importance of sustained character education throughout a student’s academic journey to ensure the development of robust ethical practices.

Finally, the mean comparison between strict and lenient policy enforcement (4.3 vs. 3.7, $p = 0.04$) demonstrates that stricter policies are associated with higher anti-plagiarism scores among students. This indicates that clear, well-enforced policies regarding academic integrity and ethical behaviour have a tangible impact on students’ adherence to ethical standards. Strict policies likely create a more structured environment where ethical expectations are explicitly communicated and reinforced, leading to better compliance. This finding suggests that educational institutions should prioritize the implementation and enforcement of clear ethical guidelines to foster a culture of integrity and responsibility, particularly in the context of AI ethics, where the stakes are high and the potential for misuse is significant. Overall, these results underscore the interconnected roles of teacher influence, sustained character education, and policy enforcement in establishing a robust foundation for AI ethics among students (Nguyen et al., 2022; Fedele, Punzi, and Tramacere, 2024).

Character Education to Build Ethics in the Use of AI

From the collected and analyzed data, a distinct contrast is evident in how students and teachers perceive AI platforms. Students predominantly favour ChatGPT, likely due to its accessibility and ease of use, reflecting a pragmatic approach to AI tools. In contrast, teachers focus on the ethical integration of AI with Islamic values, emphasizing the importance of aligning technological advancements with religious principles. This divergence highlights a potential gap between students’ utilitarian view of AI and teachers’ emphasis on moral and ethical considerations. Teachers’ strong advocacy for integrating AI with Islamic values suggests

a desire to ensure that technology serves as a tool for positive development rather than a replacement for human judgment or ethical reasoning. This perspective underscores the need for educational frameworks that bridge practical AI usage with ethical and religious teachings.

When it comes to authentication practices, students demonstrate moderate engagement, often checking AI accuracy and cross-referencing outputs, but their ethical considerations and understanding of AI limitations remain inconsistent. This indicates that while students are somewhat proactive in verifying AI-generated content, their critical evaluation skills are not fully developed. On the other hand, teachers prioritize proactive monitoring and setting clear academic boundaries for AI use, often relying on strategies such as device restrictions and educational activities to curb misuse. However, the limited mention of advanced technical methods, such as adversarial testing or SHAP/LIME, suggests that teachers may lack the technical expertise or resources to implement more sophisticated authentication practices. This gap highlights an area for professional development, equipping educators with the tools needed to effectively guide students in navigating AI technologies responsibly. These findings align with previous research that highlights the challenges of integrating AI literacy into educational settings. Previous research has highlighted that although students demonstrate varying levels of digital literacy, their ability to evaluate AI-generated content critically remains underdeveloped, often due to a lack of structured guidance (Mogaji & Nguyen, 2022; Yusuf et al., 2024; Naamati-Schneider & Alt, 2024).

The strategies to reduce plagiarism reveal a notable disconnect between teacher efforts and student practices. Teachers heavily rely on tools like Turnitin and programs promoting habitual honesty, reflecting a structured approach to fostering academic integrity. However, student adoption of citation tools remains low, indicating that these efforts may not be fully resonating with the student body (Yan et al., 2021). This disparity suggests that, although policies and tools are in place, their implementation and student engagement require strengthening. Teachers' emphasis on strict device policies and plagiarism prevention programs appears to have a positive influence on student behaviour, as evidenced by higher anti-plagiarism scores in schools with stricter guidelines (Adillón et al., 2024). This correlation underscores the importance of clear, enforceable policies in shaping ethical academic practices.

The inferential insights further emphasize the significant role teachers play in shaping student behaviour, particularly in preventing plagiarism and promoting ethical awareness. The positive correlation between teacher-led programs and student originality scores suggests that structured interventions can effectively promote ethical behaviour (Al-Jbouri et al., 2022). However, the weak correlation between teachers' monitoring efforts and students' ethical considerations suggests that current strategies may not be sufficient to instill a deep understanding of AI ethics. This points out the need for more comprehensive approaches that combine policy enforcement with educational initiatives to foster a culture of integrity and critical thinking (Chan, 2023).

The absence of significant gender-based differences in platform preference and authentication practices among students suggests that ethical engagement with AI is not influenced by gender but rather by other factors, such as educational exposure and institutional policies. This finding reinforces the idea that ethical AI education should be universally accessible and tailored to address the varying levels of understanding and engagement across different student groups (Nguyen et al., 2022; Roshanaei et al., 2023). The higher scores among seniors in authentication practices further support the notion that sustained character education over time can lead to better ethical outcomes (Bebeau, 2022; Jaynes, 2019).

Overall, the findings underscore the crucial role of teachers in guiding students toward responsible and ethical use of AI and maintaining academic integrity. While current strategies show promise, there is room for improvement in bridging the gap between policy and practice,

enhancing technical expertise among educators, and fostering a deeper understanding of AI ethics among students (Schiff, 2022; Aderibigbe et al., 2023). By addressing these areas, educational institutions can better equip students to navigate the complexities of AI technologies responsibly and ethically, aligning with both academic and religious values (Achruh et al., 2024).

The data reveals ChatGPT's dominance, moderate authentication engagement, and the effectiveness of plagiarism policies when enforced. Inferential insights suggest that teacher strategies influence student practices, although technical authentication methods remain underutilized. Limitations include self-reporting bias and a small sample of teachers (Asghar, 2024). Future studies should incorporate mixed methods to explore causal relationships and expand technical training for educators (Lawless & Pellegrino, 2007; Kraft et al., 2018).

SMK Amaliah integrates character education into various activities, including classroom lessons, co-curricular programs, and extracurricular initiatives. Islamic education plays a central role, emphasizing values such as honesty, responsibility, and independence. These values are reinforced through daily practices, such as group discussions, moral storytelling, and community service projects.

CONCLUSION

The research findings reveal that students predominantly favour ChatGPT for its practicality. At the same time, teachers emphasize the integration of AI with Islamic ethical values, highlighting a gap between utilitarian and ethical perspectives. Students demonstrate moderate engagement in authentication practices, but exhibit inconsistent ethical considerations. In contrast, teachers prioritize proactive monitoring and strict academic boundaries, despite lacking advanced technical methods. Strategies to reduce plagiarism, such as Turnitin and habitual honesty programs, are emphasized by teachers; however, student adoption of citation tools remains low, indicating a disconnect between policy and practice. Inferential insights suggest that teacher-led initiatives have a significant influence on student behaviour, particularly in preventing plagiarism. However, more vigorous enforcement and educational efforts are needed to deepen ethical awareness. Notably, no gender-based differences were found, and seniors exhibited higher ethical engagement, suggesting the cumulative impact of sustained character education.

The logical consequences for the development of Islamic educational science and practice include the need to bridge the gap between practical AI usage and ethical religious teachings by integrating Islamic values into AI education frameworks. This requires equipping teachers with advanced technical skills and fostering a culture of critical thinking and ethical responsibility among students. Strengthening policy enforcement and aligning institutional guidelines with Islamic principles can further enhance academic integrity and promote the responsible use of AI. These findings underscore the importance of holistic, values-based education that prepares students to navigate technological advances responsibly, ensuring that AI serves as a tool for positive development in alignment with Islamic ethics.

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