FROM SOCRATIC CIRCLES TO DIGITAL AI DIALOGUES: TRANSFORMING MORAL EDUCATION PEDAGOGY FOR PRE-SERVICE TEACHERS

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Abstract: Moral education in higher education is increasingly challenged to move beyond didactic instruction towards pedagogies that cultivate ethical reasoning, reflective judgement, and active learner engagement. This study examines integrating Socratic Circles with generative Artificial Intelligence (AI), specifically ChatGPT and Gemini, as an AI-mediated debate approach in Moral Education for pre-service teachers. Grounded in a qualitative case study design, data were collected from 28 participants through semi-structured interviews and reflective journals following structured AI-supported moral debate activities. The instruments were adapted from established measures of moral reasoning and dialogic pedagogy, refined through expert validation, and piloted for contextual suitability. Thematic analysis generated five interconnected themes across two research questions. For Research Question 1, findings indicate that AI functioned as a cognitive scaffold for moral reasoning by supporting argument construction and perspective expansion, while simultaneously producing a tension between authenticity and overreliance in moral judgement. AI was also perceived as a democratic equalizer in debate preparation, enabling more balanced participation among learners. For Research Question 2, the findings show that AI-mediated debates contributed to two key pedagogical outcomes: transforming pre-service teachers into reflective facilitators who prioritise questioning and dialogic learning, and strengthening collaborative and inclusive classroom engagement through more equitable participation and shared knowledge construction. Overall, participants positioned AI not as a replacement for human dialogue but as a dialogic partner that extends moral reasoning, deepens reflection, and enhances participation in ethical discourse. The study contributes to emerging scholarship on AI-enhanced dialogic pedagogy by demonstrating how AI-mediated debate reshapes both epistemic engagement and pedagogical identity in Moral Education. The findings highlight the importance of structured pedagogical scaffolding to balance cognitive support, authenticity, and inclusivity in AI-integrated learning environments.

Keywords: Moral education, AI-mediated debate, reflective learning, dialogic pedagogy, artificial intelligence.

INTRODUCTION

In recent years, integrating artificial intelligence (AI) into higher education has catalysed a significant transformation in pedagogical practices and learning environments. As Melisa et al. (2025) reveal, AI tools like ChatGPT have the potential to enhance students' critical thinking by offering diverse perspectives and supporting argument construction, with the caveat that overreliance may undermine reflective judgment. Moreover, empirical research on AI literacy underscores that ethical use of AI, including fairness, privacy, and data protection, can directly affect students' acceptance and attitudes toward these systems (Asiksoy, 2024; Kajiwara & Kawabata, 2024). Educators' perspectives further highlight a cautious direction towards responsible AI integration. While initial scepticism is common, many lecturers have come to recognize AI's potential as a constructive brainstorming partner, provided that ethical guidelines and pedagogical safeguards are in place (Mulaudzi & Hamilton, 2025). In this context, creating pedagogical interventions that include moral philosophy in structured arguments with AI systems presents a novel, dual-purpose strategy. Such a framework not only fosters ethical reasoning and

argumentative rigor (Meyer, 2024) but also models responsible AI engagement, where students address both epistemic and normative dimensions of learning in the AI age (Suchikova et al., 2025).

In Malaysia, universities are increasingly embedding AI tools into classroom practices, reflecting broader national strategies to strengthen digital competencies and future-ready skills (Mat Yusoff et al., 2025). Recent studies indicate that Malaysian preservice teachers demonstrate both enthusiasm and apprehension in adopting AI for learning; while students appreciate AI's capacity for instant feedback and content generation, they also raise concerns about overreliance and the erosion of independent critical reasoning (Ayyash & Salah, 2025; Mat Yusoff et al., 2025; Mohamed Syakir Md Tahir & Zolkepeli Haron, 2025). This duality underscores the urgency for pedagogical approaches (Azlina Hassan & Fariza Khalid, 2025) that move beyond passive AI use toward active, critical engagement. One promising direction is the incorporation of AI into moral education through structured debate activities. Unlike conventional assignments, debating with AI challenges pre-service teachers to articulate, defend, and refine moral arguments against a non-human interlocutor whose reasoning may mirror but not embody human values. This context allows students to confront epistemic tensions while cultivating reflective autonomy.

Despite efforts to modernize teaching methods, three critical challenges persist in moral education among Malaysian undergraduates. First, students frequently refrain from speaking up in class, especially on morally complex topics. This may be driven by anxiety, cultural norms of face-saving, and a deference to authority, as documented in Malaysian and regional studies (Le, 2024; Pilous et al., 2023). Second, generative AI tools are increasingly being misused, as reliance on AI for assignments undermines deep comprehension and critical thinking, with AI-enabled plagiarism becoming a mounting concern (Mohamed Syakir Md Tahir & Zolkepeli Haron, 2025; Pilous et al., 2023). Third, traditional lecture-based approaches continue to dominate, dampening engagement even though Malaysian studies show that blended, interactive strategies such as combining digital tools with active learning markedly enhance participation (Hidayah Ahmed et al., 2024). Conclusively, these issues reveal a pressing need for pedagogical innovation. Embedding structured AI-mediated debates into moral education could directly address silence, discourage passive AI copying, and replace passive lecturing with dynamic, ethical reasoning practices to make moral learning both participatory and reflective. As such, a qualitative case study is adopted to explore the pedagogical potential of AI-mediated debates in moral education in answering the two guiding questions, which are:

1. How do pre-service teachers engage with AI as a debate partner in moral education classrooms?
2. What pedagogical outcomes emerge from embedding AI debates into pre-service teachers' learning?

This study is grounded in three intersecting theoretical perspectives, namely social constructivism, moral development theory, and the Technology Acceptance Model (TAM). Together, these frameworks provide a robust lens for understanding how Malaysian undergraduates engage with AI as a debate partner in moral education classrooms and what pedagogical outcomes emerge.

Social constructivism emphasizes the active role of learners in constructing knowledge through dialogue and interaction (Gillies, 2023; Vygotsky, 1978). In moral education, debate as a dialogic activity is critical for fostering perspective-taking and higher-order reasoning, yet Malaysian students are often reluctant to participate actively (Dalim et al., 2022). Integrating AI as a debate partner can lower communication anxiety and provide students with a scaffolded interlocutor that stimulates argumentation, aligning with constructivist principles of learning through interaction. Recent studies confirm that AI-driven tools can create dialogic spaces that encourage participation and co-construction of ideas, especially among students hesitant to speak in traditional classrooms (Asregid et al., 2023; Simonson et al., 2022)

Moral development theory (Kohlberg, 1984) provides the ethical dimension of this study, suggesting that moral reasoning develops progressively through structured engagement with dilemmas. Moral education in Malaysia often struggles with passive learning modes that limit students' moral reasoning growth (Azlina Hassan & Fariza Khalid, 2025). AI-driven debates can present students with complex, adaptive moral dilemmas that challenge them to evaluate ethical positions, thereby promoting cognitive conflict, which is essential for moral development (Zulkifli Mohd Yunus et al., 2024). Moreover, integrating AI into debates can create opportunities for students to test values and principles in a structured yet safe environment, advancing them beyond rote moral instruction.

On the other hand, the technology acceptance model (Davis, 1989) adds a technological dimension by explaining how students perceive and adopt AI in education. One pressing issue is students' tendency to over-rely on AI for copying ready-made answers rather than using it as a cognitive partner (Zhai et al., 2024). TAM suggests that students' acceptance of AI depends on its perceived usefulness and ease of use (Sánchez-Prieto et al., 2020). In the context of moral debates, framing AI as a partner rather than an answer provider could reshape perceptions, transforming AI from a passive source of information into an active tool for critical thinking and dialogue (Kajiwara & Kawabata, 2024).

Recent evidence highlights the potential of AI-mediated debate to foster deeper engagement and moral reasoning in undergraduate learning. A 2025 experimental study revealed that AI tools like ChatGPT can significantly enhance students' higher-order thinking and originality in complex problem-solving (Du et al., 2025). A study involving AI-supported classroom debates found that AI reduced social anxiety and supported scaffolding for novice learners in design discussions (Zhang et al., 2025). Inquiry-based AI-enhanced debates also increased reflection and critical thinking in school settings (Yongzhi, 2024). Meanwhile, a systematic review stresses that AI must move beyond rote substitution to augment and redefine learning for deep outcomes (Bauer et al., 2025). Subsequently, research on AI adoption underscores that students' perceived usefulness of AI tools shapes constructive engagement (Yu et al., 2024), and ethical orientation is imperative to ensure AI promotes genuine learning (Ahmed Al Zaidy, 2024). These strands underscore why investigating how undergraduates engage with AI debates and the pedagogical outcomes of such engagement is both timely and essential.

METHODOLOGY

This study employed a qualitative case study design (Yin, 2014) to explore how preservice teacher trainees engage with artificial intelligence (AI) as a debate partner in moral education classrooms. The participants consisted of 28 preservice teachers (10 males and 18 females) of diverse ethnic backgrounds, all of whom were moral education majors. As selection criteria, participants had completed three moral education courses and several technology-focused courses, had prior experience engaging with AI tools, and had collectively won awards in national innovation competitions. Such purposeful sampling ensured that participants were both pedagogically grounded and technologically competent (Creswell & Poth, 2018).

The debate sessions were structured around motions derived from the existing moral education syllabus, thereby ensuring curricular relevance. Each week, one team was assigned the role of prompting AI systems (commonly ChatGPT and Gemini) to construct arguments, while the opposing team was tasked with countering those positions. Teams alternated weekly, ensuring balanced engagement with both AI-generated and human-led arguments across the 12-week program (10 weeks face-to-face, 2 weeks online). This design enabled authentic, dynamic interaction with AI while foregrounding collaborative moral reasoning and critical dialogue, consistent with socially constructed learning environments (Merriam & Tisdell, 2016).

To answer the research questions, two complementary instruments were employed. First, semi-structured interviews elicited participants' perspectives on how AI influenced their engagement with moral reasoning, teamwork, and debate skills. Second, weekly reflection prompts required participants to document their experiences, challenges, and learning outcomes during each debate. The integration of these instruments allowed for a robust and multi-perspective understanding of the phenomenon under study (Yin, 1995).

Data were collected using semi-structured interviews and weekly reflective journals. The semi-structured interviews (Patton, 2015) were designed to elicit insights on how students engaged with AI in debates and their perceptions of the pedagogical outcomes. Reflection journals provided a continuous, student-led record of learning experiences, complementing the interviews and offering longitudinal data. The interview protocol, which was adapted from Zohny (2025), included questions as seen in Table 1.

Table 1
Interview Questions for Preservice Teachers

No	Questions
1	How did AI shape your preparation and argumentation process during debates?
2	In what ways did engaging with AI influence your moral reasoning and critical thinking?
3	How did alternating between AI-assisted and independent debate roles affect your engagement and learning?
4	What challenges did you face in interacting with AI tools for moral debates?
5	How do you perceive the role of AI in supporting or hindering moral education learning outcomes?

The reflection questions which was adapted from Cenqiz (2020) is displayed in Table 2.

Table 2
Reflection Questions for Preservice Teachers

No	Questions
1	What did you learn from this week's debate, both from working with AI and from opposing it?
2	How did the debate format help you critically examine moral issues in the syllabus topics?
3	What was the most significant moment in your learning this week, and why?
4	Did AI shape your understanding of moral arguments differently compared to preparing independently?

To ensure credibility, a pilot study was conducted with five preservice teachers not included in the main sample. The pilot refined the interview protocol and reflection prompts, ensuring clarity, cultural sensitivity, and alignment with the research questions (Malmqvist et al., 2019). Furthermore, the instruments underwent expert validation by three scholars: one from the International Islamic University Malaysia (UIA) specializing in moral education pedagogy, one from Universiti Pendidikan Sultan Idris (UPSI) focusing on qualitative research methods, and one senior lecturer from the Penang Teacher Training College with expertise in teacher education. Feedback from these experts was used to improve question wording, eliminate ambiguity, and confirm content validity (Cohen et al., 2007).

Ethical considerations were strictly observed. Pseudonyms were used to protect participant anonymity, informed consent was obtained prior to data collection, and participation was entirely voluntary. Ethical clearance was secured from the university's research ethics committee, with special attention paid to participants' digital privacy in interactions with AI (Tracy, 2019). Data triangulation across interviews, reflections, and classroom observations strengthened the credibility and trustworthiness of the findings (Lincoln & Guba, 1985).

FINDINGS

Data from both interviews and reflections were analyzed using the six-step thematic analysis (Braun & Clarke, 2019). Initial open coding generated 156 codes, which were grouped into 18 categories and refined into six overarching themes aligned with the two research questions.

Findings for RQ1: How Do Pre-Service Teachers Engage with AI as a Debate Partner in Moral Education Classrooms?

The analysis of students' reflections and interviews revealed that AI was consistently perceived as a powerful cognitive scaffold that enhanced their ability to engage in moral reasoning, which sums up to Theme 1: AI as a Cognitive Scaffold for Moral Reasoning. Participants frequently described tools such as ChatGPT and Gemini as supportive "thinking partners" that helped structure their arguments, expand perspectives, and refine the logic of their stances. For instance, P3 reflected, "When I prompted Gemini, it gave me frameworks I never thought of, especially on justice and fairness." Similarly, P14 emphasized the reflective element, noting, "AI does not give me the answer, but it pushes me to rethink my argument logically." Reinforcing this point, P20 described the technology as an intellectual sparring partner: "I used ChatGPT as a brainstorming partner to see blind spots in my stance." Taken together, these accounts illustrate that students did not simply view AI as a shortcut but rather as a scaffold that extended their capacity to reason morally, echoing recent scholarship that positions AI as an enabler of higher-order thinking when embedded in dialogic learning tasks.

However, participants simultaneously expressed ambivalence about the authenticity of their moral reasoning, leading to Theme 2: The Tension Between Authenticity and Overreliance. While students acknowledged the utility of AI, many were concerned that excessive dependence might dilute personal ownership of moral reasoning. P5 expressed this candidly: "Sometimes I feel I am not thinking deeply but just editing what AI produces." P18 raised similar concerns, reflecting: "I worry whether my moral reasoning is really mine or AI's." Likewise, P27 noted certain dissonance during live debates: "During debate, I noticed my friends quoting AI directly, and that felt less genuine." These sentiments reveal a tension at the core of AI integration in moral education—while it facilitates structured reasoning, it simultaneously risks undermining the very authenticity that moral deliberation seeks to cultivate. This paradox underscores the need for scaffolding strategies that ensure students critically engage with AI outputs rather than passively reproducing them.

At the same time, students also identified positive social dynamics arising from AI integration, articulated through Theme 3: AI as a Democratic Equalizer in Debate Preparation**.** Participants highlighted that AI tools narrowed the gap between strong and weak debaters, allowing all members to access information and generate substantive contributions. As P7 reflected, "Before, the stronger speakers always dominated, but with AI, even weaker debaters could prepare solid points." P11 echoed this sentiment: "AI makes access to information fairer, especially for those less confident." Similarly, P23 described the collaborative benefits: "In our team, AI helped balance preparation so all of us could contribute equally." These accounts highlight that AI does not merely act at the cognitive level but also functions socially to democratize learning spaces, ensuring that diverse voices are included in moral debate.

Findings for RQ2: What Pedagogical Outcomes Emerge from Embedding AI Debates into Pre-Service Teachers' Learning?

The analysis of participants' interviews and reflective journals also revealed that embedding AI-mediated debates into Moral Education extended beyond supporting moral reasoning and generated meaningful pedagogical outcomes for pre-service teachers.

In coming to Theme 4: Transforming Learners into Reflective Facilitators, the researchers noticed that participants consistently described how participating in AI-mediated debates reshaped their understanding of teaching and learning. Rather than viewing debates solely as an instructional activity, they recognised the pedagogical value of combining Socratic dialogue with generative AI to facilitate questioning, reflection, and student-centred learning. Many participants explained that the experience encouraged them to reconsider their future role as teachers by focusing less on transmitting knowledge and more on facilitating meaningful classroom dialogue. P28 reflected, "There are various ways to make learning happen in a meaningful way, and this is one of them. My students are going to enjoy as much as I did." Similarly, P14 explained during the interview, "I will ensure that I use AI to prepare thinking questions for my students in the future. In this class, I learnt how to prompt critical thinking questions". A third participant highlighted the importance of questioning rather than providing immediate answers, noting, "Dr N also asked us questions but rarely tells us the answer. I realise there are many types of questioning techniques, like convergent and divergent."

Collectively, these accounts demonstrate that AI-mediated debates promoted pedagogical thinking by encouraging pre-service teachers to adopt the role of reflective facilitators who guide ethical inquiry rather than simply deliver

content. The experience enabled participants to appreciate how AI can complement dialogic pedagogy by stimulating questioning, encouraging multiple perspectives, and supporting deeper student engagement without replacing the teacher's professional judgement.

The fifth theme, which is: Strengthening Collaborative and Inclusive Learning, concerned the creation of more collaborative and inclusive learning environments. Participants reported that AI-mediated debates encouraged equitable participation, improved peer interaction, and increased confidence among students who were typically reluctant to contribute during conventional classroom discussions. Rather than competing for correct answers, students described engaging in collective knowledge construction where AI served as an additional learning resource that supported group preparation and discussion. P2 exclaimed in her reflection that she is more confident to voice her opinions in class and in public because this way of teaching forced her to think. Meanwhile, P8 said, "I usually get frustrated because AI always has an answer when I give my rebuttal, but my team caught something wrong with AI's reasoning at times. We told Dr N that some info given by AI is wrong." Concerning inclusive learning, all participants agreed that their quieter friends now speak more in class because they had to. This activity makes everyone speak in class.

These findings suggest that embedding AI into debate pedagogy extends learning beyond individual cognitive development by fostering collaborative engagement and creating more inclusive classroom interactions. Participants perceived AI not as a replacement for peer discussion but as a shared resource that enhanced preparation, supported collaborative meaning-making, and enabled more balanced participation during moral deliberation. Such outcomes indicate that AI-mediated debate can function as a pedagogical strategy that promotes both active learning and socially constructed knowledge within teacher education.

DISCUSSION

Participants consistently reported that AI tools such as ChatGPT and Gemini acted as cognitive scaffolds, enriching their moral reasoning by providing structured frameworks and novel perspectives. These reflections align with research suggesting AI can support higher-order thinking when embedded within dialogic learning tasks (Hidayatullah et al., 2025) and serve as an intellectual provocation rather than a replacement for student thought (Liu et al., 2023). However, supporting our second theme, the data also illuminated concerns about students over-editing AI outputs and questioning the authenticity of their own reasoning, where this pattern is echoed by findings on student overreliance leading to diminished critical thinking and creativity (Pitts et al., 2025). These tensions suggest a need to extend moral development theory by integrating the concept of cognitive agency, emphasizing the necessity of reflective engagement rather than AI passivity in moral reasoning. Subsequently, participants also articulated a tension between trust and scepticism, where AI enabled richer argument structures, but many are worried about losing control over their own moral reasoning. This resonates with broader concerns about the "AI trust paradox," where plausibility can be mistaken for truth, leading students to accept AI-generated content uncritically (Kreps et al., 2023). This finding both aligns with and deepens the Technology Acceptance Model (TAM), as perceived usefulness did motivate engagement, yet participants' hesitancy highlights how perceived authenticity significantly mediates effective adoption. Accordingly, TAM might be adapted to account for "ethical perceived risk" while recognizing that usefulness alone is not sufficient in morally oriented pedagogy. Conclusively, AI tools can reduce participation disparities by helping less confident students construct substantive arguments. This contrasts notably with typical critiques of AI in education (Cotton et al., 2024), which often emphasize its threat to equity. Our findings suggest that, contrary to homogenization concerns (Li & Wilson, 2025), when thoughtfully embedded in structured debate, AI can level the playing field by democratizing access to argumentative scaffolds. This has implications for social constructivist frameworks, highlighting AI's potential to support peer-to-peer equitable engagement.

The findings on pedagogical outcomes highlight that AI-mediated debate extends moral education beyond cognitive engagement and contributes to the formation of emerging pedagogical identities among pre-service teachers. This aligns with constructivist and socio-cultural perspectives of learning, where knowledge is co-constructed through interaction, reflection, and guided questioning. In the present study, generative AI tools such as ChatGPT and Gemini acted as mediating artefacts that supported participants in experiencing alternative pedagogical approaches, particularly through exposure to structured questioning and argumentative scaffolding. This exposure appears to have enabled participants to reconceptualise their future teaching roles as facilitators of

ethical inquiry rather than deliverers of fixed knowledge. Such a shift is significant in teacher education because pedagogical beliefs formed during pre-service training are known to strongly influence classroom practices in later professional contexts (Berg & Plessis, 2023; Zhai, 2025).

Subsequently, AI-mediated debate can catalyse more equitable and participatory learning environments. The findings suggest that AI did not replace peer interaction but redistributed epistemic agency by supporting shared preparation and enabling wider participation in moral dialogue. This resonates with emerging scholarship on AI as a learning partner that can reduce participation inequality by providing accessible scaffolding for idea generation and argument development (Creely, 2026). However, the emergence of AI-generated inaccuracies identified by participants also underscores the importance of critical AI literacy as an essential pedagogical competence. Rather than uncritically accepting AI outputs, learners engaged in evaluative judgement, which itself becomes an important dimension of moral and digital competence. Overall, these outcomes suggest that AI-mediated debate not only reshapes individual learning experiences but also contributes to reconfiguring classroom culture towards more inclusive, dialogic, and critically engaged pedagogical practices in moral education.

CONCLUSION

This research reaffirms that, students' moral growth is best nurtured in dialogic, participatory, and reflective spaces, while also opening new frontiers for inquiry into how debate can serve as a transformative method for values-based education in diverse cultural and institutional settings. Thus, the study moves beyond description toward transformation in how moral reasoning is understood and enacted, positioning debate as more than an academic exercise but rather as a moral practice that bridges cognition, communication, and ethical action.

The authors recommend that to mitigate overreliance, educators should co-design AI debate prompts with students, requiring them to critique and modify AI-generated arguments rather than accept them wholesale. Reflection prompts should explicitly ask students how AI perspectives diverged from their initial moral reasoning, promoting ownership and critical engagement. Next, drawing from institutional policy literature, students should be asked to submit AI-generated prompts along with their response, clarifying where AI input influenced reasoning. This transparency can preserve authenticity, enhance metacognitive awareness, and reinforce moral agency.

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The authors declare that there is no conflict of interest regarding the publication of this article.

AUTHOR CONTRIBUTIONS STATEMENT
Muhammad Noor Abdul Aziz: Conceptualisation, methodology, data collection, formal analysis, and writing (original draft), supervision
Nurhafidzah Abu Samah: Literature review, methodology, validation, and writing (review and editing).
Both authors have read and approved the final version of the manuscript.

DATA AVAILABILITY STATEMENT
The data supporting the findings of this study are available from the corresponding author upon reasonable request. No supplementary data are associated with this article.

ETHICS DECLARATION STATEMENT
This study was conducted in accordance with the ethical principles of the Declaration of Helsinki, and the study obtained the permission from the Educational Planning and Policy Research Division (EPRD), Ministry of Education Malaysia by reference number: KPM. 600-2/12/26 (54). Written informed consent was obtained from the participating pre service teachers prior to data collection. Participation was voluntary, participants could withdraw at any stage without penalty, and all data were anonymised to protect participant confidentiality. This study did not involve animals.

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