

The Freirean Classroom in the Age of Artificial Intelligence

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Abstract

This paper offers a philosophical-academic analysis of an empirical study on college students' attitudes toward ChatGPT, their epistemological beliefs, and tendencies toward academic dishonesty, reframing the findings through Paulo Freire's critical pedagogy. Building on a mixed-methods baseline study grounded originally in the Theory of Planned Behavior, the research applies Freirean concepts – the “banking” model of education, problem-posing pedagogy, dialogic learning, and conscientization – as a new lens. The reanalysis reveals that students clustered by the original study into two profiles exhibit markedly different relationships with Artificial Intelligence (AI). Cluster 1 students, those with mature epistemological beliefs, cautious ChatGPT attitudes, minimal dishonesty, demonstrate a more critical and self-directed engagement with AI, echoing Freire's vision of learners as co-creators of knowledge. Cluster 2 students, those with naïve epistemological beliefs, positive ChatGPT attitudes, higher dishonesty, often treat ChatGPT as an authoritative source of answers which is a pattern akin to Freire's banking model, with risks of dependency and surface learning. Freire's framework highlights contradictions in the AI-assisted classroom that while generative AI can support learning, it can also reinforce passive consumption of information and undermine student autonomy if uncritically used. The discussion culminates in educational implications, arguing for a dialogical and critical pedagogical integration of AI. By conscientizing both educators and learners about AI's opportunities and pitfalls, the Freirean approach can help transform the use of tools like ChatGPT from a shortcut that threatens academic honesty into a catalyst for empowerment, critical thinking, and co-learning in the modern classroom.

Keywords: Artificial Intelligence, ChatGPT, Critical Pedagogy, Philosophy.

Introduction

The rapid rise of artificial intelligence (AI) in education has sparked both excitement and concern, as institutions grapple with how tools like OpenAI's ChatGPT reshape learning (1, 2). ChatGPT, a large language model capable of generating coherent, contextually relevant text, has been lauded as a revolutionary aid for students, streamlining tasks from brainstorming (3) and summarizing readings to drafting essays (4) and solving problems (5). Its adaptability and on-demand assistance position it as a boon for learners seeking instant support (2). At the same time, however, this technology has come under critical scrutiny. Educators worry that access to AI-generated answers may encourage academic dishonesty like plagiarism or unauthorized assistance (6) and erode the development of students' own skills (7). Early research indeed highlights new ethical challenges which includes the anonymity and ease of AI tools may inadvertently encourage academic misconduct (8), necessitating updated strategies to uphold integrity. Deeper underlying questions emerge

about the nature of learning and knowledge in the AI era. Do students use ChatGPT as a learning companion or merely a convenient shortcut? How do their beliefs about knowledge and their sense of agency mediate this usage? Such questions call for not only empirical investigation but also philosophical reflection on pedagogy in the age of AI.

In retrospect, the baseline study sought to address some of these questions by examining students' attitudes toward ChatGPT, their epistemological beliefs, and internet-triggered academic dishonesty. Anchored in the Theory of Planned Behavior (TPB), that baseline study explored how students' attitudes (positive or negative feelings about using ChatGPT), subjective norms (perceived social acceptability), and perceived behavioral control (ease or difficulty of using ChatGPT without getting caught or compromising learning) relate to their intentions and behaviors regarding AI-assisted cheating. Crucially, it introduced epistemological beliefs – students' beliefs about the nature of knowledge and learning

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– into this equation. Epistemological beliefs range from “naïve” (viewing knowledge as simple, certain, and handed down by authority) to “mature” (seeing knowledge as complex, evolving, and constructed by oneself). This dimension was hypothesized to influence whether students use ChatGPT uncritically or thoughtfully. The mixed methods approach yielded quantitative correlations as well as qualitative insights from focus group discussions, painting a picture of student behavior. Notably, the original analysis identified a tension where many students

appreciated ChatGPT’s academic utility yet also voiced concerns about learning loss and ethical transgressions, reflecting an internal conflict between pragmatism and principle. To illustrate, the analysis revealed two clusters that differed notably in their attitudes, beliefs, and self-reported dishonesty as shown in Table 1. However, these findings beg for deeper interpretation beyond the behavioral framework of TPB – one that situates student experiences within a broader pedagogical and ethical context.

Table 1: Characterization of the Two Clusters Derived from the Cluster Analysis and Thematic Analysis of their Responses in the FGDs

	Cluster 1	Cluster 2
	Critical Thinkers	Convenient Utilitarians
Attitude	Cautious/Neutral	Optimistic/Positive
Usage Pattern	Needs-based use (Back-up Tool)	Task-driven use (Go-to Tool)
Learning Orientation	Learning-oriented (process and understanding matter)	Outcome-oriented (completion & grades matter)
Ethical Stance	Integrity-focused (fear of losing own learning; plagiarism stigma)	Pragmatic (willing to bend rules under pressure)
Beliefs about knowledge	Independent knowledge builders (critical of sources)	Knowledge consumers (trust external answers readily)

Cluster 1 students are characterized by below-average attitude toward ChatGPT, high epistemological maturity, and minimal academic dishonesty. In other words, students in Cluster 1 were relatively less enthusiastic about ChatGPT, tended to hold sophisticated beliefs about knowledge, and reported little to no engagement in AI-facilitated cheating. We might label this group the “critical thinkers”. Their wariness of ChatGPT’s use and their personal commitment to doing work honestly go hand in hand with their belief in self-constructed knowledge.

In contrast, cluster 2 students are characterized by a positive or pragmatic attitude toward ChatGPT, naïve epistemological beliefs, and higher tendencies toward academic dishonesty. Students in Cluster 2 generally liked or readily used ChatGPT, but they had less mature views of knowledge often viewing it as coming from external sources or as a fixed commodity and admitted to more frequent dishonest use of online resources or AI in their coursework. We might dub this group the “convenient utilitarians”. They saw ChatGPT in a mostly favorable light, perhaps as a convenient tool, and this aligned with a willingness to leverage it even in ethically dubious ways to meet academic ends.

Overall, the baseline study’s results painted a complex scenario. Quantitatively, attitude toward ChatGPT and academic dishonesty were positively correlated, while epistemological belief was negatively correlated with dishonesty. A mediation analysis tested whether epistemological beliefs mediated the effect of attitude on dishonesty, but it found no significant mediation. In other words, liking ChatGPT in itself was associated with cheating, regardless of one’s beliefs about knowledge – though holding mature epistemological beliefs had an independent, direct effect of reducing dishonest behavior. This implies that while enthusiasm for AI might universally tempt students toward shortcuts, those with a strong personal conviction about authentic learning are less likely to act unethically. Qualitatively, the two clusters manifested distinct mindsets and narratives. Cluster 1 showed more self-regulation, ethical awareness, and critical thinking about AI, and Cluster 2 showed more risk-taking, rationalization, and immediate utilitarian use. Both groups, however, experienced the structural academic pressures of heavy workload and the allure of a tool that could ease their burden.

In this paper, we build upon those empirical findings but shift the analytical lens to Paulo

Freire's critical pedagogy (9, 10), infusing the discussion with philosophical depth. Paulo Freire, a Brazilian educator and philosopher, offered a radical vision of education as a practice of freedom – a dialogical process through which learners become critically conscious agents of their own learning, rather than passive recipients of knowledge (11). His concepts, though formulated decades ago in the context of adult literacy, resonate powerfully with contemporary dilemmas posed by AI in education. The prospect of students relying on ChatGPT for answers, for instance, poignantly recalls Freire's warning against the banking concept of education, in which knowledge is treated as a gift bestowed by the knowledgeable upon those deemed to know nothing. Conversely, the ideal scenario aligns with what Freire called "problem-posing education", grounded in dialogue and mutual learning. This study therefore aims to uncover deeper meanings and implications by revisiting the data on student attitudes, epistemic beliefs, and dishonest behaviors through a Freirean framework. Are current classroom practices inadvertently encouraging a banking model with AI, and how might a more critical, humanizing approach be fostered? How do students' own words reflect or resist the roles of oppressed or empowered learners in relation to AI? Ultimately, this paper seeks to bridge the empirical and the philosophical – using Freire's ideas to interpret students' engagement with ChatGPT and using the empirical evidence to concretize and challenge Freirean theory in the digital age.

Therefore, this paper's primary objective is to reinterpret the baseline empirical findings through the theoretical lens of Paulo Freire's critical pedagogy, thereby yielding new insights into the dynamics of AI use, knowledge, and ethics in the classroom. While the original study was grounded in a psychological behavior model (TPB) to predict student cheating behavior, our analysis shifts toward a philosophical and pedagogical inquiry.

Specifically, the paper pursues to map key themes from the focus groups and quantitative results onto Freirean concepts to see how the data exemplify or challenge these ideas. It will also provide comparative Insights between Cluster 1 and Cluster 2 through a Critical Pedagogy Lens. By comparing the clusters, we can discuss, for example, how power, agency, and critical reflection

differ among the students – essentially, comparing a more Freirean-aligned approach with a more Freirean-opposed approach. Lastly, the study aims to use students' actual quotes and experiences as a grounding for philosophical discussion. Rather than theorizing in a vacuum, we root the analysis in the voices of learners themselves interpreting their remarks for what they reveal about the state of *conscientização* or lack thereof, the presence or absence of dialogue, and how they envision the role of ChatGPT.

Methodology

Research Design

Our approach in this paper is best described as a theoretical re-analysis or secondary qualitative analysis (12, 13) of an existing dataset, guided by interpretive philosophy. We did not collect new data, rather, we returned to the quantitative results and qualitative transcripts of the baseline study and examined them through the analytic framework of Freire's critical pedagogy. This methodology involves a form of *deductive thematic analysis* (14) where we began with predefined concepts from Freire's theory and looked for instances, patterns, or counterexamples of those concepts in the empirical material.

Data Sources

The primary data comprised (a) the summary of quantitative findings from the survey, and (b) full transcripts of two focus group discussions, one for each cluster, with participants labeled R1–R6 (Cluster 2) and R7–R12 (Cluster 1) respectively. These transcripts provided rich first-person accounts of students' attitudes, experiences, and justifications regarding ChatGPT use. In reporting our analysis, we draw directly from these transcripts, using verbatim quotes to illustrate points.

Analytic Procedure

We reviewed the data with Freirean lenses in mind – specifically looking for evidence of Banking model dynamics, Problem-posing or dialogical dynamics, and Conscientization or its absence. The findings were then presented following those said themes. Throughout the analysis process, we maintained an iterative dialogue between empirical detail and theoretical insight. In practice, this meant writing analytical memos on how a specific quote or finding exemplified a Freirean concept and also considering whether the data

revealed any limitations or extensions of Freire's theory in this new context of AI.

Trustworthiness and Rigor

Although this is a theoretical reinterpretation, we grounded every claim in the data or in established literature. Direct quotations from participants serve to support our interpretations ensuring we do not stray into unfounded speculation, and references to Freire's own writings or scholarly analyses of critical pedagogy provide the conceptual backbone. By triangulating between the quantitative trends, qualitative narratives, and Freirean theory, we aim to present a credible and well-substantiated analysis. The use of participants' actual words is especially important to preserve the authenticity of the students' perspectives allowing the reader to hear the tone of excitement, doubt, or concern in their voices, which we then analyze. In some cases, we have translated or explained Filipino phrases used by participants in order to make the quotes accessible to an international readership, while retaining their original intent.

In summary, our methodology is an integrative one. We treat the existing study's data as a *case study* for exploring larger questions of pedagogy in the AI age, and we apply critical theory to that case to yield insights that are both locally grounded and globally relevant.

Results and Discussion

In this section, we synthesize the findings of the baseline study with a Freirean analytical commentary. The results from both quantitative patterns and qualitative excerpts are presented not in isolation but intertwined with discussion – reflecting on their significance in light of critical pedagogy. We organize the discussion around several interrelated themes that emerged as salient: (a) The “Banking” Tendencies in AI Use vs. Critical Engagement, (b) Dialogue and the Absence of Dialogue in Students' Learning with AI, and (c) Conscientization, Ethical Tensions, and Student Autonomy and (d) Differentiating AI Technologies through a Freirean Lens. Through these themes, we compare Cluster 2 and Cluster 1 students' experiences, shedding light on how an AI tool is incorporated either in ways that reinforce traditional oppressive dynamics or in ways that hint at a more liberatory practice.

The “Banking” Tendencies in AI Use vs. Critical Engagement

Freire's banking model metaphor finds unsettling parallels in the behavior of Cluster 2 students, who by and large treated ChatGPT as a convenient repository of answers to be tapped. In the banking conception, the flow of knowledge is one-directional. It starts from the source (teacher/text) to the recipient (student), with the student's role limited to storing and reproducing information. Many cluster 2 participants described their use of ChatGPT in precisely such terms. There is little evidence of critical questioning or two-way interaction. Instead, the AI's output is accepted as a given, much as a decree from a teacher in a banking-style classroom.

One concrete indicator of this dynamic is the prevalence of copy-paste usage in Cluster 2. As noted, respondents from this group admitted to directly inserting ChatGPT-generated content into their assignments, especially under time pressure. Respondent 4, for instance, openly said that when running short of time or when unable to paraphrase in their own words, “*kinokopya ko na lang po 'yung answer [doon]*” – “I just copy the answer from it” (R4). This admission exemplifies banking in two ways. First, the student is not actively engaging with the knowledge and second, it suggests a perception that the knowledge from ChatGPT is *complete and correct as-is*. The phrase “*nakadepende na kami*” (we have become dependent) appeared in the focus group as well, highlighting that some students felt they could not proceed without the AI once they got used to it. Freire warned that in banking education, “*the more students work at storing the deposits... the less they develop the critical consciousness*”. In other words, the more these students leaned on ChatGPT to supply solutions, the less inclined they were to critically analyze or generate ideas themselves, potentially dulling their critical reasoning skills over time.

Moreover, Cluster 2 students often justified their heavy reliance on ChatGPT in terms of instrumental results like grades and completion of tasks rather than learning outcomes. Freire observed that oppressive education often conditions the oppressed to focus on short-term survival within the system at the expense of genuine learning or transformation. This was echoed by a striking comment from Respondent 6,

who reflected on their and their peers' mentality: *"minsan... ginagawa na lang namin 'yung isang bagay para pumasa. Hindi na para makapag-learn."* – "Sometimes, we just do something to pass. Not to learn." (R6). This quote lays bare a distressing contradiction on education, which should be about learning, has been reduced to a game of passing. It encapsulates what Freire would call the alienation of education's purpose under oppressive conditions (15). This means students are just considering schooling as completing requirements or getting credit rather than engaging in education as a path to knowledge and growth. The use of ChatGPT as a cheat tool is a symptom of this alienation. If the telos of the activity is merely to get the assignment done and achieve a grade, irrespective of internalizing knowledge, then a technology that expedites that result will be adopted, even if it bypasses learning. In Freire's terms, the "humanization" aspect of education which would prioritize understanding, curiosity, and intellectual empowerment is forfeited for a domesticated goal of meeting an externally imposed standard (16).

From a Freirean perspective, one might ask why these students adopt such a banking-style approach. Freire would prompt us to look at the wider context of oppression. Indeed, the narratives of Cluster 2 students repeatedly pointed to external pressures including demanding professors, a deluge of assignments, lack of time, competition – all elements of an education system that possibly values output over process. Respondent 4's earlier comment about some professors assigning so much work that *"parang sila na lang 'yung subject namin"* – "it's like they [the tasks] became our only subject" – suggests that students feel overwhelmed and unable to engage deeply with all their courses. Critical pedagogy might interpret this as the education system treating students as objects to be used to meet curriculum targets, rather than humans with finite capacities and personal learning needs. Under such oppressive conditions, students can be driven into what Freire calls a state of adaptation (17). In this case, using ChatGPT to cope, instead of critically challenging the structure of that system. The banking model is perpetuated because questioning the way courses are taught or assessed is beyond the students' immediate power. It's safer and more practical to adapt by using the tool that

makes things doable. Freire would likely empathize with the situation of these students as victims of an oppressive educational structure, even as he would critique the choice to engage in dishonest behavior as a misguided response that ultimately doesn't liberate them.

In contrast to Cluster 2, Cluster 1 students exhibited attitudes and behaviors more aligned with what Freire's problem-posing education would encourage. While not a perfect embodiment of Freirean ideals since they too operate within the same system and face similar pressures, Cluster 1 participants showed greater degrees of critical thinking, self-directed learning, and ethical consistency in their use of ChatGPT. This cluster's approach hints at the potential for AI to be integrated into education in a liberating rather than a limiting way, especially when learners maintain a mature epistemological stance and a focus on learning over grades.

A defining trait of Cluster 1 was their cautious attitude towards ChatGPT and deliberate, limited use of it. Many in this group were either reluctant to use the tool or did so with significant reservations. For example, Respondent 9 declared, *"I am not using ChatGPT... I'd rather not do the activity kung gagamit lang ako ng ChatGPT"* – "I'd rather not do the activity if I would only do it by using ChatGPT" (R9). This is a remarkable stance as it indicates a strong personal ethic around learning. It is essentially a belief that doing the work oneself, even if imperfect or incomplete, is preferable to outsourcing it to an AI. Freire would likely see in this a sign of *conscientização* beginning to manifest. The student is aware that using ChatGPT in that manner would violate an internal principle and so resists the easy route. In effect, R9 is asserting *"my learning and integrity matter more than just getting it done."* Such a statement reflects a learner who to some extent has escaped the oppressive notion that the grade is everything or that knowledge is mere content to be delivered. Instead, the student values the *process* of struggling through the task, which aligns with a problem-posing mindset where struggle and inquiry are essential to learning (18).

Additionally, Cluster 1 participants tended to use ChatGPT interactively with other tools or steps, reflecting a more integrated approach to knowledge. For example, Respondent 10 mentioned getting key points from ChatGPT then

running them through Quill Bot to paraphrase, and then presumably integrating them into their own writing with further editing. While one might cynically view this as just an elaborate way to hide plagiarism, the way they described it in the focus group suggested that they were actually processing the information. Paraphrasing in one's own words even if assisted by software still requires understanding the content to some degree. And importantly, the student recognized the need to do something with the AI output to make it suitable for learning/submission. This layered approach – get ideas, put them in your own words, use multiple resources – is far closer to research and learning process than the straightforward deposit-and-retrieve approach seen in Cluster 2. It indicates that these students see ChatGPT as one resource among many. In Freirean terms, we could say these learners are exercising more agency. They decide how and when to use the AI, and they integrate it into their activity without relinquishing their own cognitive participation. The fact that Cluster 1's qualitative themes included "Collaborative and Supportive Role" for ChatGPT supports this interpretation. They often anthropomorphized ChatGPT as a "buddy" or an assistant – meaning they see it as something that works with them, not instead of them. Here, the AI becomes a sort of auxiliary teacher but interestingly, not the authoritarian kind – more like a friendly tutor that they consult while still remaining in control of their learning process.

However, it's worth noting that even Cluster 1 students were operating within the larger educational system's constraints. Their use of ChatGPT as a guide still skirted the edges of what might be considered academically acceptable or not depending on certain institutional policies. An author argues that even using AI to generate an outline or get inspiration could be a gray area if not cited (19). But from a Freirean perspective, the key issue is not the rule compliance per se, but whether the student remains intellectually engaged in the process. In one interesting exchange, the moderator asked, *"If you become teachers, would you let your students use ChatGPT?"* and got varied answers. Respondent 1 from Cluster 1 said yes, but only as a guide, whereas Respondent 5 said an emphatic no, because having experienced it, they saw the drawbacks. This scenario of students

imagining themselves as teachers and reflecting on AI's role is quite Freirean – it's a critical reflection on practice that indicates a higher level of awareness. R5's stance shows a deep understanding of how misuse of ChatGPT can hollow out learning. This is essentially a moment of conscientization in which the student not only realizes the personal impact but is projecting that insight to protect future students from the same pitfall. Freire advocated that through education, the oppressed would eventually become aware and capable of changing the conditions for others (20).

In summary, Cluster 1's approach to ChatGPT, characterized by selective use, critical skepticism, prioritization of learning, and ethical restraint, aligns much more closely with a problem-posing pedagogy than Cluster 2's approach does. These students maintained an active role in their learning process, treating AI as a tool to be critically used, not a crutch to be leaned on blindly. This is not to idealize Cluster 1 completely as they still struggled with temptations, and a few slipped into dishonest acts at times. But the crucial difference is that they were aware of those issues and largely self-correcting. Their example suggests that with the right support, students can integrate AI in a way that enhances learning. In a Freirean sense, they show the latent potential of technology to be part of a practice of freedom if used under the guidance of critical consciousness.

In critically assessing the above findings, it's important to acknowledge limitations and emerging challenges, often framed in terms of algorithmic oppression and the automation of learning. First, there is the issue of algorithmic oppression defined as the risk that AI systems deployed in education can perpetuate or even exacerbate social biases and injustices (21). Biased training data or flawed algorithms may lead to, for example, language models that reflect racial or gender stereotypes, or predictive analytics that disproportionately flag marginalized students as at risk. Such outcomes would directly contravene Freire's goal of empowerment for the oppressed. Hence, ensuring that AI does not become a new instrument of oppression requires ongoing vigilance. As one recommendation notes, any ethical guidelines for AI in schools should address data privacy and algorithmic bias. Future research and practice must include audits of AI tools for

bias, involvement of diverse stakeholders in design, and transparency so that students and teachers can interrogate how an algorithm is making decisions which essentially brings the hidden curriculum of AI into the light of critical dialogue.

Dialogue and the Absence of Dialogue in Students' Learning with AI

A recurring Freirean theme to interrogate in these findings is dialogue – specifically, how the presence of ChatGPT in student work mediates or replaces dialogue between students and teachers, and what that means for learning. Freire held dialogue as sacred in education (22). It is through dialogue that teachers and students cocreate knowledge and dismantle the hierarchy that positions one as superior. In the context of this paper, “dialogue” can have multiple facets including student–teacher dialogue about AI and learning, student–student dialogue about using AI, and even a metaphorical “dialogue” between the student and the AI itself. Our analysis reveals a concerning dialogue shortcoming surrounding ChatGPT use, which has implications for how or whether critical pedagogy can be practiced.

First, consider student–teacher dialogue. The data suggest that open conversations about ChatGPT between students and instructors were minimal. Most of what students did with ChatGPT was on their own time, often covertly if it involved dishonesty. Students did not mention any formal guidelines or discussions initiated by teachers about when and how to use AI appropriately. This silence is problematic. In a Freirean classroom, we would expect teachers to engage students in exactly this sort of critical dialogue. For instance, acknowledging that ChatGPT exists and asking questions like, *how do you think we should treat this tool in the context of learning? What are its pros and cons?, or What ethics are involved?* By discussing it, teachers could demystify the AI, set mutual expectations, and integrate student input into policy. The absence of such dialogue likely contributed to confusion and varied individual strategies. Each student was left to navigate ChatGPT on their own, some seeing it as forbidden fruit. Freire wrote that banking education inhibits creativity and domesticate the intentionality of consciousness by isolating consciousness from the world (20). Here, students' consciousness of ChatGPT's implications remained somewhat

isolated, not brought into the “world” of the classroom community for examination.

Now, looking at student–student dialogue, we find some mention of peer influence. In Cluster 2, Respondent 5 noted, *“one of the factors are my peers”* when discussing what contributed to their attitude toward ChatGPT. We can infer that peers likely share tips or at least normalize usage. However, did peers discuss the *ethical dimension* among themselves? It's unclear. Sometimes ethical standards are maintained within peer groups, but other times peer culture can encourage shortcuts. The data suggests that at least some peers collectively rationalized ChatGPT use due to heavy workload (*“lahat naman hirap, kaya okay lang gamitin”*), but also that some felt shame if discovered like R5 who mentioned family of teachers scolding them for copying, which likely influenced him to think twice.

One very telling moment in the FGD is when the moderator asks students to describe what ChatGPT is to them “as a person”. The answers – “teacher,” “half-teacher half-friend,” “friend” – indicate the kinds of relationships students have formed with the AI in their minds. This is a form of pseudo-dialogue (23). Indeed, using ChatGPT often feels like asking questions to an entity and getting answers, which simulates a dialogue. But crucially, it is missing the essential quality of dialogue that Freire insists on which fosters mutual human presence and the possibility of mutual transformation. ChatGPT does not truly listen, nor can it offer empathy or adjust to a student's personal context in a genuine way. If a student starts treating ChatGPT as a teacher or friend replacement, they might not seek out real teachers or friends for help. R2's comment (*“I think, sobrang natulungan talaga ako ni ChatGPT as a friend”*) suggests that when real teachers were unapproachable or peers were unavailable, ChatGPT filled that socio-academic void. It's as if the AI became a part of their support network. On the other hand, Freire would likely caution that this “relationship” should not supersede or substitute the human relationships in education. A student might start to rely on the AI for answers to not just homework questions but even what to think or believe. Without a teacher's guiding presence to challenge or contextualize, the AI's output might reaffirm biases or shallow understanding.

To put it bluntly, the danger is that the banking model could be reified by AI in a new form. Instead of teacher deposits knowledge into silent student, now AI deposits knowledge into silent student. The student's role hasn't changed – they're still largely passive – only the actor playing the teacher role has changed. Dialogue between teacher and student might further dwindle if teachers respond to AI by simply trying to detect it or ban it, rather than talk about it. If trust erodes, like in situations where teachers suspect any good writing might be AI-generated, the relationship becomes adversarial, not dialogical. Freire would argue that such an environment is far from liberating because it becomes oppressive for both parties.

Therefore, an important direction for the future is leveraging what might be called AI-enhanced dialogue. Rather than framing AI only as a threat, we should also investigate how it could be turned into an ally of Freirean pedagogy when used creatively. Could AI tools help generate content or simulations that provoke discussion about real-world issues? Can they provide scaffolding for shy students to find their voice, or supply data that students then critically analyze? Early explorations suggest that if used thoughtfully, AI could enrich human dialogue where learners are enabled to ask better questions and approach problems from new angles (24), provided it is always embedded in a dialogic, problem-posing context. This optimistic view requires much more empirical study, and it hinges on maintaining Freire's core principles.

Conscientization, Ethical Tensions, and Student Autonomy

A crucial aspect of Freire's critical pedagogy is the development of critical consciousness (*conscientização*) – the ability to perceive social, political, and ethical contradictions and to take action against oppressive elements of reality (20). In the context of our study, we look at the extent to which students became aware of the contradictions and ethical dimensions of using AI, and whether they exhibited what we might call ethical agency, defined as the capacity to make principled choices in alignment with their values, even when external incentives might nudge them otherwise. The data reveal significant tensions within students' experiences that could serve as the germ of conscientization, though not all students fully resolved those tensions in practice. We also see some instances of emerging critical

consciousness, particularly in how students articulate the problem of AI use in their own learning journey.

One of the starkest contradictions students themselves identified is the clash between *convenience and genuine learning*. We have already quoted R7 from Cluster 1 who noted that ChatGPT simultaneously "helps you by making you do less". This recognition is a classic case of a *dialectical contradiction*. That is, AI offers a thesis (efficiency) and an antithesis (loss of learning). The very fact that students can voice this suggests they are critically examining the tool's impact, not just using it blindly. The unease that accompanies this thought is evident in multiple comments across both clusters. Respondent 6 admitted to feeling "guilt" after using ChatGPT to finish assignments, reflecting that "*oo tapos mo nga, pero hindi naman lahat galing sa'yo*" – "sure, you got it done, but not everything came from you" (R6). This guilt is not merely an emotional response. It indicates an underlying value that one *should* be responsible for one's own work and knowledge. Guilt arises from the conscience's alarm that this value was violated. In Freirean terms, this could be seen as the invitation to conscience – a moment where a learner becomes aware that there's a disconnect between what they are doing and what they believe to be right or authentic (25).

What about the role of epistemological beliefs in conscientization? The baseline study found that mature epistemological beliefs correlated with less dishonesty, implying a link between how one views knowledge and how one behaves ethically with respect to knowledge. Mature believers, who see knowledge as something one must construct and understand, likely feel cheating defeats the purpose. Hence, they feel stronger disapproval of using AI to short-circuit learning. This belief is itself a kind of critical insight. It rejects the notion that answers alone equal knowledge. Indeed, one participant essentially said exactly that. R2 recounted how using ChatGPT made them realize that if the teacher asks something about the work, "*wala akong maisagot*" – "I have nothing to answer" (R2), because they didn't truly learn the material. This realization is a powerful moment of conscience in which the student is confronted with the emptiness of a grade achieved without learning.

However, we should also explore the ethical agency of students under pressure. Freire recognized that the oppressed often face a difficult path to exercise agency (26). It's easier to comply or to cheat than to resist and possibly suffer academic consequences. Yet, in Cluster 1, students did exercise agency by either not cheating or using AI in a limited way despite having the same tool and presumably similar workload. What enabled them to do so? The data suggest a mix of personal values, possibly reinforced by prior educational experiences or mentorship that emphasized integrity. It might also be that some had slightly less dire time constraints. Freire often noted that critical consciousness develops in a context of dialogue and reflection – perhaps some Cluster 1 students had mentors, parents, or peers who instilled strong values, effectively conscientizing them about cheating even before ChatGPT came along. For example, R5 mentioned his entire family are teachers who disapprove of copying, *“they always [scold] me when I copy, saying...”*. That external moral framework likely contributed to R5's internal values, which then manifested as guilt and ultimately refusal to wholeheartedly embrace AI cheating. This underlines the role of community and culture in shaping ethical agency.

Another tension that emerged is the fear of failure versus the desire to learn. Respondent 6 explicitly mentioned *“Fear of... bumagsak”* – fear of failing – as a driving force that can trigger academic dishonesty. *“Nasa triggered point ka na you need to do this for you to pass”*, they explained, *“Hindi na para makapag-learn.”* – “You're at a trigger point that you need to do this to pass, not to learn” (R6). This candid confession shows how easily wanting to pass can override a deeper goal of learning, especially when panic sets in. Fear is an emotion that can short-circuit ethics. It narrows our focus to immediate survival. In educational terms, a student who fears failing an important course might justify almost anything to avoid that outcome. The presence of intense fear is itself a sign of an oppressive atmosphere where failing is equated with personal ruin or shame, rather than a learning opportunity (27).

Moreover, the incorporation of AI-driven tools in the classroom raises urgent ethical concerns around student data privacy and surveillance. Freire's vision of humanizing education conflicts with practices that turn students into data points

under constant monitoring. Recent critical analyses caution that surveillance technologies in schooling threaten privacy and autonomy central to critical pedagogy with algorithmic biases in AI systems potentially amplifying educational inequities (28). In other words, AI can unintentionally reinforce the very power imbalances and dehumanization that Freire sought to dismantle. In fact, a critique of contemporary schooling is pertinent where many schools, he warns, have become punishment factories imposing pedagogies of control, discipline and surveillance, thus emptying education of critical content (29). A Freirean classroom must actively resist this trend. Educators should scrutinize any AI application to ensure it does not sacrifice student privacy or freedom in the name of efficiency. Protecting students' rights and dignity in an age of datafication is essential to maintaining the trust and dialogue that Freirean pedagogy requires.

Another ethical dimension involves the role of teachers amid increasing automation. Freire describes teachers and students as co-learners in dialogue, but the rise of AI has led to anxieties about teachers being marginalized or replaced. Studies have shown mixed reactions from educators. Many appreciate AI for easing administrative load, yet express concerns over diminishing pedagogical control and the fear of uselessness when AI tools encroach on core teaching tasks (30). From a critical pedagogy standpoint, teachers are not mere content-delivery agents but transformative intellectuals and facilitators of dialogue. Their professional autonomy and human presence are irreplaceable for conscientização. If AI is implemented in a rigid and top-down manner, teachers will feel disempowered and monitored rather than supported (31). This resembles a digital extension of Freire's banking model, reducing teachers to objects within an AI system. To address this, any integration of AI must be done with teachers, not against them. Inclusive AI policies should involve teachers in decision-making and reaffirm the irreplaceable human dimensions of teaching – empathy, mentorship, and moral judgment. Upholding the Freirean teacher-student partnership in the AI era means using AI to augment human teaching while avoiding techno-driven surveillance or deskilling of educators.

In summary, issues of ethics and agency were at the heart of the students' experiences with ChatGPT. The internal conflicts they faced (ease vs. integrity, passing vs. learning, obeying rules vs. meeting expectations) mirror the broader conflict in education between the values of authentic learning and the pressures of success. Freire's lens helps us see these not just as individual dilemmas, but as products of an educational paradigm that often sends mixed messages to students. Encouragingly, many students exhibited moral reflexivity – they were not comfortable being dishonest, and they intellectually understood why relying on AI too much was detrimental. These are the seedlings of critical consciousness. The task for educators is to cultivate those seedlings by acknowledging students' feelings, facilitating ethical discussions, and restructuring learning conditions to align doing well with doing right. These student voices, when amplified through a Freirean approach, could lead to an educational practice where technology is used with critical wisdom, and where students' autonomy and integrity are not sacrificed on the altar of efficiency.

Differentiating AI Technologies through a Freirean Lens

As not all AI technologies affect learning in the same way, it is crucial to distinguish among types of AI and examine how each intersects with Freirean concepts like dialogic education and conscientização. Large Language Models (LLMs) such as ChatGPT can simulate conversation and provide information, but their educational impact depends on usage. If students rely uncritically on LLM outputs, the technology could end up *intensifying the "banking model"* where learners may rely passively on machine-generated answers and learning might devolve into an automation of rote instruction which reinforces the very passivity that Freire warned against. On the other hand, when used in a dialogic, problem-posing manner, an LLM can become a catalyst for inquiry. For instance, teachers and students might treat an AI's response as a starting point – questioning it, debating its assumptions, and probing its gaps – thereby turning the AI into a partner for exploration rather than an authority. In this Freirean approach, the LLM's presence sparks more questions and dialogue, helping learners to

test ideas, challenge assumptions and imagine alternatives instead of merely consuming answers. On the other hand, adaptive learning platforms, those systems that personalize exercises or content to each student, present a similar duality. Such platforms could support a *personalized* form of problem-posing education that adjust to students' needs and freeing teachers to engage in deeper dialogue. However, if misapplied, adaptive systems might treat students as passive recipients of algorithmically chosen content. Freire's emphasis on dialogue and co-construction of knowledge means that even personalized pathways should be accompanied by critical conversations about why and how the AI is guiding learning, ensuring the student remains an active subject in their education and not an object of AI-driven prescriptions.

Predictive analytics is also an emerging form of AI in education. For example, AI systems that predict student performance or flag at-risk individuals must be approached with caution under a Freirean lens. In positive terms, these tools could alert teachers to struggles that merit timely intervention, aligning with the ethic of care for each learner yet there is a risk. If predictive algorithms label or track students without context, they can impose a fixed mindset and lower expectations, contradicting Freire's belief in learners' ability to grow through critical reflection and action. Conscientização requires that students participate in understanding their own learning challenges. Thus, any predictive system should be transparent and used in dialogue with the student, not as a top-down verdict on their potential. Students should be encouraged to critically examine such algorithmic assessments and leverage them as opportunity for developing critical tech literacy as part of their own empowerment.

Lastly, AI-powered surveillance systems like exam proctoring software using facial recognition and classroom monitoring tools pose the most direct conflict with Freirean education. These systems prioritize control and compliance that create an atmosphere of distrust that undermines open dialogue. Freire would likely identify such surveillance-as-education as an *anti-dialogical practice* akin to the conquest and manipulation tactics used by oppressors to maintain domination. When education relies on constant monitoring or

biometric scrutiny, it treats students as suspects rather than co-creators of knowledge which is a dynamic fundamentally at odds with liberation pedagogy. In critical pedagogy terms, surveillance tools exemplify the culture of silence that Freire sought to break, where students self-censor and comply out of fear. A Freirean analysis insists that even if these tools promise security or academic integrity, they erode the trust and critical agency that true learning requires. Therefore, the use of any surveillance-oriented AI in classrooms should be minimal at best, and if used, openly discussed and critiqued with students. By distinguishing these AI technologies and their potentials or pitfalls, we make it clear that the Freirean classroom must actively shape technology's role, ensuring each tool is used or refused in ways that support dialogic, humanizing education rather than undermine it.

Conclusion

The integration of AI tools like ChatGPT into education stands at a crossroads between two paradigms. One that risks reinforcing passive, uncritical learning, and another that offers opportunities for enhanced critical engagement and democratization of knowledge. By re-examining an empirical study of students' attitudes and behaviors through the lens of Paulo Freire's critical pedagogy, this paper has illuminated the deeper pedagogical implications of AI use in the classroom. Our analysis finds that students' interactions with ChatGPT are not merely a matter of individual choice or temptation. They are profoundly shaped by the educational context that includes the pedagogical models in place, the pressures exerted by curricula and assessment, and the guidance from educators on how to navigate new technologies.

Applying Freire's concepts allowed us to identify not only problems but also possibilities for transformation. A key insight is that students are far from oblivious to the pedagogical implications of AI as many voiced sophisticated understandings of the trade-offs. This indicates a certain degree of readiness among students to engage in critical dialogue about AI in education. Freire teaches that the first step toward change is awareness, and the seeds of awareness (*conscientização*) are clearly present. The challenge and opportunity for educators is to nurture this awareness into a

collective critical consciousness and to channel it into constructive action. If students are given the space to discuss and reflect on their use of ChatGPT, to analyze why it's tempting, and weigh on what it offers and what it costs, they can become partners in developing ethical guidelines and innovative uses for the technology that enhance learning.

In light of the analysis, educators can adopt specific Freirean-aligned techniques to harness AI in a liberatory way. First, teachers can design activities for dialogic engagement with AI-generated texts. Rather than treating an AI's output as authoritative, the class uses it as a conversation starter. For example, students could collectively examine a paragraph written by ChatGPT or AI essay grader's feedback where the task is interrogating its content, pointing out assumptions or errors, and discussing why the AI might have produced such an answer. This approach transforms AI into a subject of dialogue, thus demystifying the technology. Such practice aligns with critical pedagogy by prompting learners to question, verify, and build on AI-generated information instead of passively consuming it. It also mirrors Freire's problem-posing method where the AI's response becomes a problem to think through collectively that can lead to deeper understanding for students and teachers alike.

Second, educators should encourage student-led critiques of algorithmic bias and other ethical issues stemming from AI. This could involve students investigating case studies of biased AI decisions or examining the outputs of different algorithms for signs of stereotyping. By guiding learners to recognize and challenge AI's limitations, we heed Freire's call to read the world critically. For instance, a class might explore why a language model associates certain professions or roles with specific genders or races, thereby unveiling how technology can mirror societal prejudices. Engaging in this kind of critical analysis builds what might be termed critical AI literacy (32). Through such student-centered inquiries, the classroom becomes a site of *conscientização* about digital technologies and students become aware of injustice and their capacity to question it.

Third, and importantly, teachers can implement strategies for knowledge co-construction using AI. In practice, this means positioning AI as a collaborative tool rather than an all-knowing tutor.

For example, a class can use an AI platform to gather diverse sources or perspectives on a topic, then engage in a group dialogue to evaluate and synthesize that information. Students could work in teams to prompt an AI for ideas or solutions, then critically discuss the AI's suggestions, merging them with their own insights to create a collective outcome. Research in critical digital pedagogy suggests the value of such approaches. One study recommends collaborative AI use (33), where students analyze ChatGPT's responses critically, discuss their implications, and collaboratively construct knowledge. This mirrors Freire's notion that knowledge is not deposited by a teacher (or by an AI) into students, but co-created through dialogue. By co-writing or co-investigating with AI and always with human judgment in the driver's seat, students practice the very skills of critical thinking, dialogue, and reflection that Freirean pedagogy cherishes. Implementing these techniques can help ensure that the advent of AI becomes an opportunity for advancing Freire's practice of freedom. In a Freirean AI-enhanced classroom, students and teachers remain active subjects, critically engaging with technology. AI tools are used in service of dialogue, creativity, and critical inquiry – never as a replacement for human interaction, but to enrich it. In an educational practice where AI is examined and employed through a critical pedagogical lens, we prepare both educators and learners to navigate the age of artificial intelligence consciously and conscientiously, keeping the flame of liberatory education alive in new forms. Each of these proposed strategies embodies the belief that even with AI in the room, the ultimate goal of education remains the same - to empower learners to name their world and transform it toward greater humanity and justice.

Abbreviations

None.

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Author Contributions

Bryan M Nozaleda: conceptualization, methodology, theoretical framing, investigation, formal analysis, validation, writing—original draft, writing—review and editing, visualization, project administration, Beverly M Addun: literature review, data curation (secondary materials), interpretation, validation, writing—review and editing, resources, supervision.

Conflict of Interest

The author declares no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Declaration of Artificial Intelligence (AI) Assistance

During manuscript preparation, a generative AI assistant (ChatGPT) was used for language polishing (grammar, clarity, and formatting). No AI tools were used for data collection, statistical analysis, interpretation of findings, or generation of original scholarly ideas. After using the tool, the author reviewed and edited the content as needed and takes full responsibility for the final manuscript.

Ethics Approval

This article presents a theoretical re-analysis of previously collected and de-identified materials (survey summaries and anonymized FGD excerpts). No new data were collected from human participants. In accordance with institutional and national guidelines, secondary analysis of fully de-identified data is exempt from additional ethics review. All procedures in the original data collection adhered to ethical standards and informed consent, with all direct identifiers removed prior to the present analysis. The baseline study was granted ethical approval from the Institutional Research Ethics Board with protocol details CSU-IERB-2025-10-263.

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