

# A PHENOMENOGRAPHIC Study on the Experiences of Students on the Use of Generative Artificial Intelligence (GAI) in Academic WRITING

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## ABSTRACT

This phenomenographic study explored the variations of the lived experiences, role of experiences, and sense-making of higher education students on the use of Generative Artificial Intelligence (GAI) in academic writing through maximum variation purposive sampling. Revealed are the following themes from students' lived experiences: efficiency and convenience, skill enhancement vs. overdependence, ethical and fairness concerns, emotional impact, evolution of tool exploration, and trust and reliability issues. For the role of GAI experiences in shaping understanding academic writing, the themes emerged: AI as a writing proficiency enhancer, AI as a critical thinking disruptor, AI as an integrity compromiser, and AI as assistant for authentic writing. In terms of students' sense-making of their experience, the themes emerged: identity and authenticity in writing, dependency and self-efficacy, critical thinking evolution, ethical and pedagogical tensions, adaptive learning strategies, and confidence and competence reassessment. The dimensions of variation across disciplines in terms of institutional policies, adaptation strategies, perceived fit, primary use cases, and ethical concerns vary from restrictive to permissive, technical to creative, task-dependent, rooted in epistemic norms, and tied to field consequences. Reflected in the study is the Outcome Space Derivation structured framework organizing the different ways participants experience GAI in academic writing.

**KEYWORDS:** *Education, Generative Artificial Intelligence, academic writing, phenomenography, Philippines.*

## INTRODUCTION

Writing remains a fundamental academic skill essential for communication, critical thinking, and knowledge construction Taye and Mengesha (2024). However, many higher education students continue to

struggle with academic writing due to difficulties in organization, idea development, grammar, and academic language use Patty (2024). Recent studies have shown that Generative Artificial Intelligence (GAI) tools are increasingly being used to address these challenges because they provide immediate assistance in grammar correction, content refinement, paraphrasing, and idea generation Tang et al. (2024). At the same time, scholars have raised concerns regarding overreliance, plagiarism, weakened critical thinking, and the possible loss of authenticity in student writing Pereira et al. (2024). These tensions suggest that while GAI offers academic support, it also reshapes how students experience and approach writing itself.

In the United States of America (USA), Wang (2024) exposed how writing in academic setting guided with GAI yields likelihood of adding up false and made-up information leading to inaccuracy and miscommunicated information and purpose pointing out the inability to respond to higher level, specialized cases resulting to general outcomes instead of the accurate results. Similarly, in Hawaii, Pack and Maloney (2023) delineated GAI tools' concerns in writing which is prone to biases, limited knowledge on its ability to judge information and lack of evaluative measures in understanding contexts. Meanwhile, in the United Kingdom, Arowosegebe et al. (2024) described GAI's drive in writing which triggers cheating and restrict human writing ideation. While ChatGPT, which is one of the prominent GAI tools, offers benefits in writing, in China, Kim et al. (2024) pointed out its barriers in the writing process including lack of factual authenticity, lack of higher order thinking and lack of contextual understanding.

While generative AI potentially transforms learning experiences in the writing process, in the Philippines specifically in Nueva Ecija, De Jesus et al. (2024) stressed how users may encounter contextual misunderstandings leading to frustration as the purpose of writing outcome is not accurately achieved. According to Santiago et al. (2023) in his study covering the different higher education institutions around the country, the use of GAI in academic writing can lead to academic dishonesty including plagiarism and infringement of intellectual property. In a study by Fontanilla et al. (2023) in Baliwag City, GAI limits students' writing capabilities and creativity enabling more their overreliance and dependency due to the convenience provided by AI writing tools.

In Davao Region, Obenza et al. (2023) explored the risk of undermining critical thinking and provoking the risks of academic misconduct in using GAI for school academic written tasks in blended and online learning degrading the practical purpose of knowledge formation. In Davao De Oro, the study of Balatero et al. (2024) revealed inaccuracy and unreliability in the use of GAI in writing noting significant ethical concerns mentioning potential biases as one of the significant risks associated with GAI use.

Existing studies on GAI in higher education largely focus on measurable outcomes such as frequency of use, perceptions, academic performance, or ethical concerns through quantitative approaches Chen et al.,2023. Although these studies provide valuable insights, they offer limited understanding of the qualitatively different ways students experience and make sense of GAI in academic writing Andrade-Girón et al. (2024). More importantly, students from different disciplines may experience AI differently depending on institutional expectations, writing demands, and disciplinary cultures Dingal et al.'s (2024). Despite the growing integration of GAI in academic settings, there remains insufficient exploration of the variations in students' experiences, meanings, and adaptive strategies when using these tools in writing tasks. This gap highlights the need for a phenomenographic investigation that captures the diverse ways students understand and experience GAI in academic writing contexts.

### Research Questions

1. What are the lived experiences of higher education students in using generative AI in academic writing?
2. In what ways do students' experiences with GAI shape their understanding of academic discipline and writing proficiency?
3. How do they make sense of their experiences in the context of academic discipline, and writing proficiency?
4. What variations exist as they make sense of their experiences?

### Theoretical Lens

This study is anchored on Engelbart's (1962) Augmented Intelligence Theory, which views AI as a tool that enhances rather than replaces human intelligence. The theory emphasizes human–AI collaboration in improving cognition, problem-solving, and learning. In the context of academic writing, GAI supports students by generating ideas, organizing content, and reducing barriers to beginning complex writing tasks while allowing learners to retain control over the writing process. This perspective is supported by Marzuki et al.

(2023), who reported that GAI improves writing quality, coherence, organization, grammar, and vocabulary.

The study is further guided by Long and Magerko's (2020) AI Literacy Framework and Orgill's (2012) Phenomenological Variation Theory. The AI Literacy Framework highlights the competencies needed to critically evaluate AI-generated outputs and use AI ethically in academic writing, including awareness of issues such as bias, plagiarism, and intellectual honesty. Meanwhile, Phenomenological Variation Theory explains that students experience and understand GAI differently based on their interactions with the technology. Together, these frameworks provide a foundation for examining the diverse ways students perceive, evaluate, and integrate GAI into their academic writing practices.

## METHODOLOGY

*Research Design.* This study employed a qualitative phenomenographic design to explore the qualitatively different ways higher education students experience the use of GAI in academic writing. Phenomenography is appropriate because it focuses on identifying variations in participants' understandings and experiences of a phenomenon rather than describing a single shared essence. Anchored in variation theory, the study examined how students from different disciplines perceived, interpreted, and adapted to AI-assisted writing practices.

Phenomenography is particularly suited for this study because it delves into the relationships between different individuals in the phenomenon, emphasizing the variations in experiences rather than generalizing a singular lived experience. Variation theory complements this as it is knitted to examine how learning and understanding emerge from recognizing differences and similarities in these experiences of GAI utilization, this alignment will help uncover the diverse ways students perceive and interact with GAI tools and how these perceptions influence academic writing processes. By focusing on the differences in conceptions, the study will also provide insights into how students navigate the opportunities and challenges posed by generative AI in academic settings.

*Research Site and Participants.* The study involved 10 higher education students, consistent with Trem (2017), who recommended 10–20 participants for phenomenographic research to capture sufficient variation while maintaining manageable data. Participants were bona fide undergraduate students from

different campuses in Davao Oriental who had completed at least 15 academic units. They were selected through purposive maximum variation sampling, considering differences in program, age, gender, year level, and campus to capture diverse experiences. Participants were required to have independently used Generative AI (GAI) for academic writing, be willing to participate in in-depth interviews, and provide reflective insights into their experiences. Students who faced significant technological barriers that could affect the interview process were excluded.

*Data Analysis.* This phenomenographic study employed thematic analysis to examine participants' experiences with GAI in academic writing. Audio-recorded in-depth interviews were transcribed verbatim, allowing immersion in the data and the identification of initial patterns (Braun & Clarke, 2006). An inductive coding process was then conducted, where codes emerged directly from participants' narratives and were grouped according to recurring experiences and perspectives (Saldaña, 2016).

The codes were continuously compared and refined into broader themes that represented the variations in students' experiences (Smith et al., 2009). These themes were organized into descriptive categories and synthesized into a conceptual framework that visually illustrated the relationships among the identified patterns and provided a comprehensive representation of how GAI influences students' academic writing experiences.

*Trustworthiness.* This study considered Guba's (1981) notion for trustworthiness as the framework to establish the objective of qualitative phenomenological study to fairly depict the experiences of participants without insertion of potential biases. The validity of each analytical process phase, including the planning, structure, and reporting of results, were assessed. When considered collectively, these steps ought to give the reader a clear understanding of the study's overall reliability in adopting Lincoln and Guba's (1985) model which identifies four criteria for trustworthiness which include credibility, confirmability, transferability, and dependability.

*Ethical Considerations.* The study underwent ethical review and approval by the UIC Ethics Review Committee (UIC-REC) to ensure compliance with established research ethics and the protection of participants' rights. The review addressed potential risks, confidentiality, informed consent, and participant welfare, thereby strengthening the credibility and integrity of the

study (Beauchamp & Childress, 2013; Bourgeois, 2015). The research complied with the UIC-REC's ten ethical dimensions, including social value, informed consent, participant vulnerability, risks and benefits, privacy and confidentiality, justice, transparency, researcher qualifications, adequacy of facilities, and community involvement.

RESULTS

This chapter deals with the results of the study and focuses on the findings in relation to the research questions developed in the previous chapter which examined students' experiences with Generative Artificial Intelligence (GAI) for academic writing. The study delves into how participants from diverse fields and campuses each bring their own views, hurdles, tactics and understanding to the table as they navigate through their scholarly writing tasks by weaving in GAI.

| THEMES                                | CORE IDEAS                                                                                                                                                                                                                                                                                                                                                                                                                               |
|---------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| AI as a Writing Proficiency Enhancer  | Improving grammatical accuracy and syntax through AI corrections<br>Expanding vocabulary by introducing advanced or unfamiliar words<br>Developing structured writing styles by mimicking AI-generated outputs<br>Enhancing coherence and logical flow in academic writing<br>Providing instant feedback on tone, style, and clarity<br>Boosting confidence in non-native English speakers (e.g., correcting verb tenses)                |
| AI as a Critical Thinking Disruptor   | Encouraging laziness due to overreliance on AI for idea generation<br>Diminishing original thought when students copy AI outputs verbatim<br>Reducing engagement in the writing process (e.g., brainstorming, drafting)<br>Creating anxiety about losing personal creativity over time<br>Causing "skill stagnation" in critical analysis and argumentation<br>Replacing human effort with AI efficiency (e.g., "spoon-feeding" answers) |
| AI as an Integrity Compromiser        | Risking plagiarism when submitting AI-generated content as original work<br>Lacking proper citations or misattributing sources (e.g., fake references)<br>Facing detection penalties from instructors using AI-checking tools<br>Struggling to defend AI-generated work during oral defenses<br>Feeling guilt over compromised academic integrity<br>Battling trust issues in peer/student work authenticity                             |
| AI as Assistant for Authentic Writing | Rewriting AI outputs to retain personal voice<br>Using AI only for scaffolding (e.g., outlines, grammar checks)<br>Preserving creativity by limiting AI's role to "assistant"<br>Combining personal insights with AI-enhanced phrasing<br>Resisting uniformity in writing style (e.g., avoiding repetitive AI diction)<br>Setting self-imposed limits to avoid overdependence                                                            |

**AI as a Writing Proficiency Enhancer.** The participants acknowledged the role of GAI in shaping their cognition, their ability to think and in organization of ideas complementary also to improving their writing proficiency. This was supported by Orion, who shared:

So, with AI, it advanced or it makes me a better academic writer with wider vocabulary and techniques, especially in my grammar and syntax.

**AI as a Critical Thinking Disruptor.** The participants expressed concerns about the potential negative impacts of AI particularly in terms of diminishing critical thinking acknowledging that AI use for idea generation can encourage laziness as students may become too dependent on AI-generated content leading to the absences of the development of their own ideas. Skye experienced her gradual dependence of AI reflecting on its influence which affected her personal creativity and critical thinking following her utterance:

Before, I could feel that, like, oh, this was from me, but now, oh, this is not my work, it feels different... like your own creativity, your own critical thinking, it kind of disappears... because, most of the time, the one doing the work is not you personally.

In relation, Luna further emphasized concerns about originality, explaining that frequent reliance on AI might diminish her ability to generate unique ideas, she shared:

It has also raised concern about originality and/or overreliance sir about AI. Well, uhmm my concern is... every time that we will be... having... task about writing, so, if I always rely on the... AI...my originality might diminish because I rely on AI all the time.

**AI as an Integrity Compromiser.** The participants voiced worries over the authenticity problems that come with using GAI in academic writing honestly and responsibly. In relation, Orion stressed his experiences:

So sometimes I think that oh it's a strong argument but the proper citation is not well uhmm cited. For example, according to the World Health Organization, but it's not the WHO-created information... So that's one of the problems, the misinformation I get... from AI.

Beyond misinformation, Luna shared a personal struggle with defending AI-generated work, acknowledging the consequences of submitting content she did not personally create:

When I use AI in writing, our instructor told us... to defend our writing so I cannot

defend it because I am not the one who do it... that will be the consequences.

**AI as an Assistant for Authentic Writing.** The participants strategized fully maximizing AI use by viewing it as a writing assistant paving for the ways they strike a balance; on one side harnessing the power of GAI and on the other keeping their own voice and creative flair alive in academic compositions. Astra explained her method of adding personal touches when updating generated content:

By exploring and searching for related guidance. Yes... by adding my personal thoughts and style.

In the same manner, Sol described how she selectively uses the generated ideas while ensuring her writing remains original:

I just take ideas from it... my academic writing still has originality. I also add, sometimes I remove parts. Because I feel like this sentence is too much... like I didn't fully write it myself.

| Dimension Type | Category               | Technical/STEM                                                                                 | Humanities                                                                              | Applied Sciences                                                                               | Business                                                                      | Variation                 |
|----------------|------------------------|------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|---------------------------|
| Structural     | Institutional Policies | - Strict anti-AI rules in coding exams<br>- Encouraged for drafting reports                    | - Detectors for reflection papers<br>- 15-20% AI tolerance in some courses              | - Banned in clinical documentation<br>- Limited use for research reviews                       | - No clear guidelines (varies by professor)                                   | Restrictive → Permissive  |
|                | Adaptation Strategies  | - Hybrid approach (self-draft + AI polish)<br>- Cross-checking formulas with textbooks         | - Rewriting AI outputs in "teacher voice"<br>- Using AI as a grammar tutor              | - Using AI only for initial searches<br>- Prioritizing peer-reviewed sources over AI           | - AI for brainstorming only<br>- Manual refinement of templates               | Technical → Creative      |
|                | Perceived Fit          | Mixed (60% helpful for writing; unreliable for calculations)                                   | High (especially for language precision)                                                | Low-Medium (caution with evidence-based practice)                                              | Medium (useful for templates but lacks context)                               | Task-dependent            |
| Referential    | Primary Use Cases      | - Fact-checking formulas/code<br>- Generating technical reports<br>- Debugging assistance (IT) | Grammar/structure refinement<br>Lesson plan generation<br>Teaching strategy suggestions | - Research summarization<br>Medical/agricultural fact verification<br>Experiment documentation | - Business plan templates<br><br>- Market analysis<br>- Case study frameworks | Rooted in epistemic norms |
|                |                        | - Plagiarism in technical writing                                                              | - Loss of authentic teaching                                                            | - Life-and-death stakes (nursing)<br>- Misinformation                                          | - Generic business proposals                                                  |                           |

|                  |                                          |                                              |                           |                             |                           |
|------------------|------------------------------------------|----------------------------------------------|---------------------------|-----------------------------|---------------------------|
| Ethical Concerns | - Overreliance on AI for problem-solving | voice - Over-polished but impersonal outputs | in agricultural practices | - Lack of critical analysis | Tied to field consequence |
|------------------|------------------------------------------|----------------------------------------------|---------------------------|-----------------------------|---------------------------|

**Restrictive → Permissive.** One of the variations, under structural dimension, expressed considering the experiences of the participants on their use of AI in academic writing is restrictive → permissive. This variation occurs in relation to institutional policies category identified in the study. The following utterances made this variation true:

The variation for technical/STEM group of participants expressed focus on strict rules against AI while encouraging each of them in drafting. From the words of Celeste, she noted that:

While in our IT... it helps us in our major in coding... If we seek help from AI, there should also be a limit, Sir, because there was one time our teacher, Sir, caught my classmates having the same (output), Sir.

Moreover, considering the experiences of Humanities, certain variation occurs in as much as this group of participants expressed that their use of AI is upon considering tolerance which covers 15-20% use for detections on plagiarism in their reflection papers. True to what Nova said:

Others go straight ahead and just copy-paste really, it's like I feel like they're just doing it like for example... make a reflection about this one and they're just doing it like that but for me, what makes me different or my different way is that I really make my own first before I turn to AI.

**Technical → Creative.** Another variation under the structural dimension, as indicated in reference of the experiences of the participants on their use of AI in academic writing is technical → creative. This variation occurs in relation to adaptation strategies identified in the study, based on the group of participants' utterances. These are reflected in their statements:

The variation for the Technical/STEM group of participants focused on a structured and systematic approach, integrating AI as a tool for refinement rather than as a primary content generator. This was evident in Orion's statement:

I used to do manual checking on on more reliable sites... sometimes there were no proper citations done and wrong informations... like the report we have last week, I've searched about the mechanical and physical property of rocks in our geology in civil engineers and I found out that rocks, study of rocks is not petrology, but that it should be petrology. Sometimes the AI will give you unreliable information, but you should not really depend on it... Yes [cross-check], and other books also here in library.

Considering the experiences of Humanities, a shift in variation occurs as this group expressed a more personalized adaptation strategy, ensuring AI-generated content aligns with academic expectations through stylistic modifications. This was affirmed by Luna, who noted:

Based on my experience... I'm not really good in grammar, Sir, so when I have some task that involves writing, I sometimes ask AI to rearrange my statements. So, if ever there is a grammar needed to be changed or changed.

**Task-dependent.** The structural dimension's third variation, shared based on the utterances of the participants during the IDIs, is task-dependent. This variation occurs in relation to perceived fit, based on the experiences of the participants regarding their use of AI in academic writing as task sensitivity reveals that AI is not technically a universal solution but considered as a selective tool but situational depending on the demands of the specific academic requirements from student of different programs. These are reflected in the following utterances:

The variation for the Technical/STEM group of participants expressed a mixed perception, where AI was helpful in supporting writing but not suitable for critical calculations. Orion captured this sentiment by stating:

At some point, it really fits to my chosen course, but most of the time... if we search about calculus, some some identities, there are some operations being used by AI that were not true or factual, the answers were incorrect. So, I think the chance that it fits is not that too big. So, like a 60.

In the Humanities group, the high perceived fit for AI was noted as it was particularly beneficial for ensuring language accuracy and improving

stylistic elements. As Nova described:

My learning was enhanced regarding that, regarding that matter and I also learned more about how to construct the right sentence, like that, so I was kind of encouraged as well to use AI more for enhancement.

**Rooted in Epistemic Norms.** For structural dimensions, the experiences of participants show a different way they use AI in academic writing which is based on the standards rooted in epistemic norms. These are realized from the following utterances:

The variation for the Technical/STEM group is rooted in their reliance on AI to ensure the precision and correctness of technical outputs. Phoenix shared based on his statement:

Especially as a BS Math student... there are formulas or processes that we need to understand, and then we can't really understand them if we don't... do... research, so through AI... sometimes I get to use it.

For the Humanities group, AI is leveraged to refine language and structure, supporting pedagogical processes and enhancing the quality of lesson plans and teaching strategies. Atlas affirmed this:

Through its structure, you can also adopt it, Sir... our discipline in TLE doesn't just focus on laboratory work, it also involves lesson planning, and AI could really help in terms of those things.

In the Applied Sciences group, the focus on accuracy in research and documentation is evident, with AI serving to ensure the credibility and validity of scientific data. This was emphasized by Iris:

We look for research studies that are... related to plants, so what I do is... I also ask it for sources from... it provides the introduction... and I also acknowledge where the source came from.

The Business group's use of AI, though more aligned with strategic business practices, demonstrates how AI can be employed within the context of industry-specific frameworks, as noted by Sol:

It's really hard to understand the business-related stuff, like what those theories are... But since AI is available, it seems like the information it provides is more detailed, which helps me understand better what I need to learn.

**Tied to Field Consequences.** One of the variations under the referential dimension, as emphasized by the experiences of the participants on their use of AI in academic writing, is tied to field consequences. This variation is observed in how participants across different disciplines manage ethical concerns specific to their fields.

The variation for the Technical/STEM group reflects the critical need for accuracy and originality especially against the concerns of the potential dangers of plagiarism and reliance on AI. Phoenix uttered:

Sometimes I depend on using AI for things on how it should be especially proving things which is making use of English words, and then sometimes I use AI to help me prove the problem-solving tasks that are given.

For the Humanities group, ethical concerns are primarily tied to the balance between refining content with AI and maintaining the authentic, personal touch in teaching and writing. Atlas explained:

If you use AI, you somehow can't fully own what you've created... because the idea doesn't really come from you anymore... it's AI-generated. So those are the ethical considerations I've observed, like in terms of ownership and fairness in your output.

In the Applied Sciences group, ethical concerns are heightened by the real-world implications, such as life-and-death decisions in nursing and the impact of misinformation in agriculture. Skye emphasized these risks:

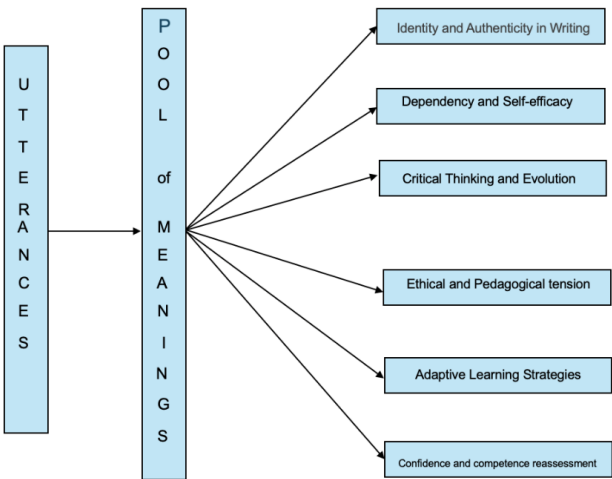
For example, right now we're on duty and then this person vomits or has diarrhea, or the diagnosis is that they have diarrhea, and you don't know what to do, so you go to AI and ask, 'What should I do?' Then it suggests something, but it turns out it's not evidence-based, and if it leads to the patient's death, then our license could also be at risk.

The Business group’s ethical concerns focus on the risk of generating formulaic, unoriginal content that lacks depth, a point raised by Astra:

Some AIs are not reliable... Of course, I also have my own critical thinking..... Students should learn to critically evaluate AI generated contents and use it to support their own ideas in writing.

**Outcome Space Derivation.** In a phenomenographic study, the outcome space derivation pertains to the process of identifying and organizing the different ways participants make sense of their experiences for a particular phenomenon involving categorizing these varying experiences into a structured framework which not only points out the contrasts but also maps out the connections between these varied experiences.

**Figure 1**  
*The Process from Data to Categories of Description*

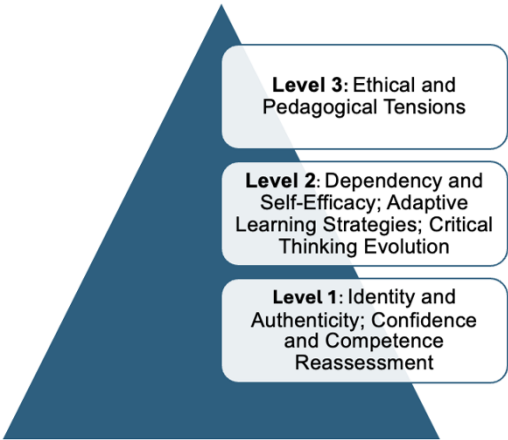


The conceptual framework illustrates the progression from individual utterances gathered during the interviews to a pool of meanings, which serves as the foundation for identifying deeper patterns in students' experiences. While each participant interpreted GAI use through their own personal context, these individual perspectives converged into shared meanings that revealed both commonalities and variations in how students experience AI-assisted academic

writing. Through phenomenographic analysis, the transcribed responses were examined for recurring ideas, allowing collective meanings to emerge naturally from participants' lived experiences. These shared meanings formed the basis for identifying the major themes that characterize students' perceptions, challenges, and adaptive practices in using GAI.

From this pool of meanings, six interrelated categories emerged: Identity and Authenticity in Writing, Dependency and Self-efficacy, Critical Thinking Evolution, Ethical and Pedagogical Tensions, Adaptive Learning Strategies, and Confidence and Competence Reassessment. Together, these categories demonstrate that students' experiences extend beyond the technical use of AI, encompassing personal identity, ethical decision-making, strategic adaptation, and continuous self-reflection. Collectively, they provide a comprehensive view of how students navigate the opportunities and challenges of GAI in academic writing, illustrating the evolving relationship between technology, learning, and responsible academic practice.

**Figure 8**  
*Representation of Outcome Space*



The outcome space illustrates the different ways students experience GAI-assisted writing through three hierarchical levels. The foundational level centers on identity, authenticity, and confidence, where students value AI for improving grammar and organization but struggle with preserving their personal voice and originality. This tension is particularly evident among non-native English speakers, who view AI as both a language support and a source of

self-doubt. The adaptation level reflects students' development of strategic AI use, balancing its benefits with concerns about overdependence. They employ techniques such as drafting independently before using AI for refinement, adapting AI use according to disciplinary needs, and strengthening critical thinking by verifying AI-generated content and integrating human feedback.

At the highest level, students become increasingly aware of the ethical and pedagogical implications of AI use, including plagiarism, fairness, academic integrity, and the need for institutional guidance. Participants emphasized the importance of clear AI policies and formal AI literacy education that promotes responsible and ethical use rather than mere technical competence. Overall, the framework demonstrates that students' experiences progress from concerns about personal identity, to strategic adaptation, and ultimately to ethical responsibility, highlighting the need for learner-centered guidance and institutional policies that support responsible GAI integration in higher education.

## DISCUSSION

The findings reveal that students perceive Generative Artificial Intelligence (GAI) as both a valuable writing aid and a source of academic and ethical concerns. Participants consistently described AI as reducing workload, overcoming writer's block, and improving writing efficiency. These findings support Farrokhnia et al. (2023), who emphasized AI's ability to reduce cognitive workload, and Woo et al. (2024), who found that students commonly use AI to generate ideas and sustain writing. Participants also reported improvements in grammar, vocabulary, and academic language, consistent with Kasneci et al. (2023), Chen and Gong (2025), Ngo (2024), and Song and Song (2023). However, they acknowledged that excessive reliance may hinder independent writing skills and originality.

Students demonstrated different approaches to AI use. Some used AI as a support tool by revising and personalizing generated content, while others admitted submitting AI-generated work with minimal changes. These findings align with Iskender (2023), who argued that AI cannot replace human creativity, and with Tan et al. (2024), Tran (2024), and Wang (2024), who recommended using AI primarily for brainstorming, outlining, and grammar checking rather than complete composition.

Ethical issues also emerged strongly. Participants raised concerns regarding plagiarism, fabricated citations, inaccurate information, and academic dishonesty, supporting the findings of Ariyaratne et al. (2023), Chan (2023), Mahama et al. (2023), and Koos and Wachsmann (2023). Consequently, many students reported verifying AI-generated information through peer-reviewed sources, reflecting Liu et al.'s (2024) observation that responsible AI use requires strong critical evaluation skills.

Emotionally, participants viewed AI as reducing stress and simplifying difficult writing tasks, yet many experienced guilt when depending on it excessively. These findings mirror Chan (2024), who reported that AI improves productivity while reducing students' sense of ownership, and Gerlich (2025), who found that AI simplifies learning but cannot replace deeper intellectual engagement.

Students also described gradually developing AI literacy by learning effective prompting techniques and exploring advanced features such as paraphrasing and idea generation. This progression supports Korzynski et al. (2023) and Wei (2023), who found that familiarity enables more strategic and effective AI use. Nevertheless, participants recognized AI's limitations, including inaccurate information, fabricated references, and limited cultural sensitivity, consistent with Garg et al. (2024) and Agarwal et al. (2025). These weaknesses reinforced the importance of human judgment and fact-checking.

Identity and originality remained central concerns. Participants worried that excessive AI use weakened their personal voice and creativity, supporting Bedington et al. (2024), Hwang et al. (2024), and Gonsalves (2024). Many therefore intentionally rewrote AI-generated text to preserve authenticity. Others admitted reduced effort and growing dependence on AI, reflecting Ahmad et al. (2023), Ju (2023), and Zhang and Xu (2025), who warned that overreliance may reduce critical thinking and increase anxiety when AI is unavailable.

Experiences also differed across disciplines. Technical and STEM students used AI cautiously for writing support, debugging, and explanations while verifying technical accuracy (Streletska et al., 2024; Wang et al., 2024). Humanities students employed AI more flexibly for language improvement and lesson planning while maintaining their personal voice (Black & Tomlinson, 2025; Salde et al., 2025). Applied Sciences students limited AI to literature reviews and drafting because of concerns regarding patient safety and

evidence-based practice (Foote et al., 2025; Gosak et al., 2024). Business students primarily used AI for brainstorming and proposal templates while recognizing its limitations in strategic analysis (Bien et al., 2024; Darnell & Gopalkrishnan, 2024).

Participants emphasized the need for clear institutional guidelines on ethical AI use, echoing Funa and Gabay (2025). Rather than viewing AI as entirely beneficial or harmful, students experienced it in diverse ways depending on their discipline, ethical beliefs, and learning strategies. Collectively, the findings suggest that GAI is most valuable when used as a supportive learning tool that enhances writing while preserving critical thinking, originality, academic integrity, and human judgment.

The findings indicate that students perceive Generative Artificial Intelligence (GAI) as both a valuable academic support and a source of ethical and learning challenges. While students primarily use GAI to reduce workload, overcome writer's block, organize ideas, and improve writing quality, they also recognize the importance of maintaining critical thinking, originality, and meaningful human input. Rather than replacing students' writing abilities, GAI is viewed as a tool that should complement the writing process while preserving academic integrity and authentic authorship.

The study likewise suggests that higher education institutions should establish clear and discipline-sensitive policies on GAI use. Because writing demands vary across academic programs, institutions may benefit from implementing program-specific guidelines and ensuring that students are properly oriented on responsible AI use at the beginning of each academic term. Instead of prohibiting GAI altogether, educators should promote its ethical integration by designing writing activities that require students to evaluate, revise, and critically reflect on AI-generated content. Regular workshops and faculty development programs should also be conducted to keep pace with the rapid evolution of AI technologies and promote responsible adoption.

The findings demonstrate that students' experiences with GAI exist along a continuum rather than being entirely positive or negative. Their experiences are shaped by disciplinary expectations, ethical considerations, personal identity, and adaptive learning strategies. From a phenomenographic perspective, students construct diverse meanings from AI-assisted writing, highlighting that GAI is most beneficial when used as a supportive learning tool

that strengthens writing skills while preserving critical thinking, creativity, authenticity, and academic integrity.

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