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# Experiences of Students with Generative AI Tools: Uses, Benefits, Challenges, and Learning Impact

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## Abstract

In recent years, the rapid advancement of generative artificial intelligence (GenAI) has significantly transformed various sectors, particularly in education. In the Philippines, students have increasingly adopted AI-powered platforms not only for convenience but also as supplementary learning tools. However, despite its potential benefits, the use of generative AI in education presents several challenges. This study investigates the experiences of maritime students in using generative artificial intelligence (GenAI) as a learning support tool in their academic activities at Private Higher Education Institutions (PHEIs). Utilizing a qualitative phenomenological research design, data were gathered through semi-structured interviews with selected maritime students who had prior experience using GenAI for academic purposes. Findings indicate that students perceive generative AI as an accessible and helpful learning aid that supports understanding of complex maritime concepts, improves study efficiency, and enhances academic confidence. Students commonly used GenAI for explaining lessons, summarizing topics, organizing academic tasks, and preparing for assessments. Despite these advantages, participants also identified concerns related to accuracy, originality, academic integrity, and the potential for overreliance on AI-generated content. To address these concerns, students employed responsible strategies such as verifying information from credible sources, paraphrasing outputs, and using AI strictly as a supplementary tool. Overall, the study concludes that generative AI positively influences students' learning habits by promoting critical thinking, strategic study practices, and ethical awareness. The findings highlight the need for guided and responsible integration of generative AI in maritime education to support learning while maintaining academic integrity and independent judgment.

**Keywords:** Generative AI, Maritime Student, Academic Learning, Student Experience, Ethical Awareness



## INTRODUCTION

In recent years, the rapid advancement of generative artificial intelligence (GenAI) has significantly transformed various sectors, particularly in education. Generative AI refers to technologies capable of producing human-like outputs such as text, images, code, and simulations, enabling new forms of interaction between learners and digital systems (Dwivedi et al., 2023). As these tools become increasingly accessible, students are integrating them into their academic routines for tasks such as drafting essays, explaining complex concepts, generating ideas, and supporting problem-solving activities. The growing use of generative AI in education highlights its potential to enhance learning efficiency, creativity, and academic engagement.

In the Philippine context, students have increasingly adopted AI-powered platforms not only for convenience but also as supplementary learning tools. Studies suggest that generative AI can support deeper understanding, improve academic performance, and facilitate independent learning when used appropriately (Siddig, 2025). These tools allow learners to receive immediate feedback, explore multiple perspectives, and engage in self-directed

learning processes. As a result, generative AI is gradually becoming an integral part of contemporary academic experiences.

However, despite its potential benefits, the use of generative AI in education presents several challenges. Issues related to academic integrity, such as plagiarism and overreliance on AI-generated outputs, remain a major concern (Estrellado & Miranda, 2023). Evidence from prior studies indicates that students may unintentionally depend too heavily on AI to complete assignments, which could undermine critical thinking development (Dwivedi et al., 2023; Siddig, 2025). Furthermore, the lack of clear institutional guidelines on ethical AI use creates uncertainty among students and educators. There are also concerns regarding the potential decline in critical thinking skills if students become overly dependent on automated tools. Additionally, unequal access to digital technologies may widen the gap between students with varying levels of resources, thereby reinforcing existing educational inequalities (Dwivedi et al., 2023).

Understanding students' experiences with generative AI is therefore essential in evaluating its role in academic learning. Exploring how students use these tools, the benefits they gain, the challenges they encounter, and how AI influences their learning outcomes can provide valuable insights for educators and policymakers. Such understanding is particularly important in specialized fields of study where critical thinking, problem solving, and skill mastery are essential.

Despite the increasing integration of generative AI in education, there remains a limited body of research that focuses on students lived experiences, particularly within specific academic contexts. Many existing studies emphasize the technical capabilities or general impact of AI, rather than how students meaningfully engage with these tools in their learning processes (Dwivedi et al., 2023; Siddig, 2025). This gap underscores the need for qualitative investigations that capture students' perspectives, behaviors, and reflections regarding AI use.

In response to this gap, the present study explores the experiences of students with generative AI tools in terms of their uses, benefits, challenges, and learning impact. By examining students' firsthand accounts, the study aims to provide a deeper understanding of how generative AI shapes academic practices and learning development. The findings of this study are expected to contribute to the development of responsible AI usage guidelines, inform instructional strategies, and support the integration of emerging technologies in education in a way that enhances learning while maintaining academic integrity.

**Statement of the Problem.** This study sought to explore the experiences of Maritime students with generative AI tools in their academic learning. Specifically, this study aims to yield answers to the following questions:

1. What are the students' perceptions of the role of generative AI in academic learning?
2. In what ways did students use generative AI to support their studies, and for what types of academic tasks?
3. What benefits did students experience from using generative AI in their education?
4. What challenges or concerns did students encounter when using generative AI, including issues of academic integrity and overreliance?
5. How did students believe generative AI influenced their understanding of course content and their overall learning development?

## LITERATURE REVIEW

**Generative AI in Education and Maritime Contexts.** Generative Artificial Intelligence (GenAI), particularly large language models,

has become a transformative element in higher education by enabling content generation, interactive simulations, and real-time academic support. Siddig (2025) highlighted its role in enhancing assessment design and alignment, underscoring its capacity to personalize learning across disciplines. Within evolving digital pedagogy, GenAI strengthens blended and flipped learning approaches, where students engage in independent study supplemented by iterative AI-driven explanations and scenario-based feedback. These applications illustrate how GenAI fosters flexible, data-driven, and personalized learning environments that improve comprehension and communication skills while addressing diverse academic needs.

In maritime education, GenAI offers unique opportunities and challenges. Technical fields such as navigation, maritime law, and safety procedures demand precision, experiential learning, and contextual understanding. GenAI can complement traditional instruction through adaptive exercises, scenario-based simulations, and language support, particularly when access to ships or simulators is limited. However, research remains scarce on discipline-specific applications in maritime contexts. This gap emphasizes the need for further inquiry into how GenAI can be adapted to vocational domains requiring both cognitive and practical competencies. Moreover, educators must cultivate new competencies to guide students in the ethical use of AI, ensuring academic integrity, accountability, and critical decision-making in maritime practice.

**Student Experiences and Learning Development Using GenAI.** Existing literature highlights diverse student experiences with generative AI (GenAI), though maritime-focused studies remain limited. Bura (2025) found that students benefit from improved comprehension, efficiency in academic tasks, and personalized learning support, but warned of risks such as overreliance and diminished critical engagement. Similarly, Al-Hajri (2025) reported that GenAI enhances creative cognition, self-efficacy, and confidence while reducing anxiety—outcomes especially relevant in maritime education, where complex decision-making is essential. Duong (2024), through an ethnographic study of speech-language pathology students using a GPT-4 chatbot, observed cautious receptiveness, with AI serving mainly as a supplementary resource when instructors were unavailable. Buisson (2025), applying Bloom's Taxonomy, noted that GenAI supports lower-order skills like understanding and application but may hinder higher-order thinking such as evaluation and synthesis.

Further studies emphasize the importance of AI literacy and balanced integration. Splawa-Neyman (2025) introduced the GenAI Literacy Assessment Test (GLAT), showing that AI literacy strongly predicts performance in AI-supported tasks. Boguslawski et al. (2025) added that GenAI fosters autonomy, competence, and motivation but cannot replace social interaction and collaboration. Despite these contributions, a gap persists in maritime contexts, where strict regulations and risk-sensitive environments may shape distinct student experiences. This study addresses that gap by examining how maritime students engage with GenAI and how it influences their learning development.

**Ethical Issues, Academic Integrity, and Responsible AI Use.** While GenAI offers numerous educational benefits, it also raises important ethical concerns. Hagendorff (2020) noted that AI use in education can blur the boundaries between academic assistance and dishonesty, particularly in the absence of clear guidelines. Students may unintentionally engage in unethical practices, such as overdependence on AI-generated outputs.

In the Philippine context, Estrellado and Miranda (2023) highlighted the government's commitment to AI integration through initiatives such as the National AI Roadmap. While AI has the potential to enhance personalized learning, improve efficiency, and expand access to education, challenges remain, including infrastructure limitations, data privacy

concerns, and the digital divide. These issues are particularly relevant in ensuring equitable access to AI technologies across diverse student populations.

Ahmed et al. (2024) further emphasized concerns related to bias, academic integrity, and diminished critical thinking. Although students recognize GenAI as a valuable learning tool, many oppose its use in roles traditionally held by educators, such as grading or instruction. This underscores the importance of establishing clear ethical frameworks and policies to guide responsible AI use.

In maritime education, these concerns are amplified due to the profession's emphasis on safety, accountability, and precision. Misuse of AI tools may compromise not only academic integrity but also students' preparedness for real-world maritime operations. Therefore, promoting ethical awareness and responsible AI usage is essential in maintaining the rigor and credibility of maritime training programs.

**Discipline-Specific Gaps and the Need for Maritime-Focused Research.** A recurring theme in the literature is the lack of discipline-specific studies on the use of GenAI in maritime education. Most research has focused on fields such as business, education, engineering, and programming, leaving a significant gap in understanding how AI impacts maritime students.

Studies such as (Bick et al., 2024) suggest that AI adoption varies across disciplines, influenced by specific educational needs and technological infrastructure. This indicates that findings from other fields may not be directly applicable to maritime education. Supporting this, studies across disciplines (Pesovski et al., 2024; Quek et al., 2024; Wood & Moss, 2023; Fatahi et al., 2023) consistently demonstrate that while GenAI enhances engagement, personalization, and learning efficiency, its effectiveness depends on proper integration, guidance, and contextual relevance.
Given the specialized nature of maritime education, there is a clear need for research that examines how GenAI is used within this context, how students perceive its role, and how it influences their academic and professional development.

**Synthesis.** The reviewed literature shows that generative AI is transforming education by enhancing learning, engagement, and efficiency through personalized support and feedback. However, challenges such as overreliance, reduced critical thinking, and ethical issues highlight the need for proper guidelines and AI literacy. In maritime education, GenAI can support simulations and adaptive learning, but limited research on maritime students calls for further investigation. Overall, AI offers significant benefits, but its effectiveness depends on responsible use, ethical practices, and proper integration.

## METHODOLOGY

**Research Design.** This study utilized a phenomenological qualitative research method. Phenomenological research is a deep investigation of what experiences mean to people and concerns the investigation of everyday human experiences in order to understand people's common-sense interpretations and the meanings they construct from their experiences and those of others. It requires the researcher to focus on participants' experiences of a phenomenon to obtain comprehensive details that serve as a basis for reflective structural analysis and reveal the essence of the experience (Bliss, 2016).

A qualitative approach was employed, as it is widely used in the social sciences. Qualitative research examines social constructs and the significance of human experience through beliefs, behaviors, and emotions, seeking to understand phenomena as participants see and feel them (Bouchrika, 2023).

**Participants of the Study.** This study involved five (5) maritime students currently enrolled at St. Therese–MTC Colleges who had prior experience using generative artificial

intelligence (GenAI) tools for academic tasks. Participants represented different academic levels, providing varied perspectives. They were selected through purposive sampling to ensure firsthand, meaningful insights. Participation was voluntary, and informed consent was secured prior to data collection, allowing the researchers to gather rich, in-depth accounts of their experiences, perceptions, and reflections on GenAI use.

**Instrumentation.** The researchers utilized a semi-structured interview guide designed to explore various aspects of maritime students' experiences in using generative artificial intelligence (GenAI) tools for academic learning. The interview guide covered topics such as students' purposes for using GenAI, perceived benefits and challenges, ethical concerns, learning enhancement, and reflections on how GenAI influences their study habits and academic development. Semi-structured interviews were conducted with selected maritime students from St. Therese–MTC Colleges, Magdalo Site, La Paz, Iloilo City, who had prior experience using GenAI tools in their coursework. The interview questions were formulated to elicit rich and detailed narratives regarding students' interactions with GenAI, including its role in problem-solving, understanding course content, managing academic tasks, and addressing concerns related to overreliance and academic integrity.

**Data Gathering.** The study began after research committee approval to ensure compliance with institutional and ethical standards. Researchers coordinated with academic offices and used purposive sampling to select maritime students who had experience with GenAI tools. Approval was obtained from the Dean, and participants were informed about the study, consented voluntarily, and scheduled for interviews. Semi-structured interviews were conducted either face-to-face or online, lasting 10–15 minutes. An interview guide ensured consistency while allowing participants to elaborate on their experiences. Responses were provided in English, Filipino, or preferred languages. With consent, interviews were audio-recorded, and field notes were taken for contextual details. Data were transcribed verbatim and analyzed thematically. Member checking was conducted to validate interpretations and enhance the credibility and trustworthiness of the findings.

**Data Analyses.** Data analysis began with the transcription and organization of verbatim interview data. The study employed thematic and narrative analysis to identify patterns in participants' experiences with GenAI. Researchers immersed themselves in the data through repeated listening and reading, then coded significant statements (e.g., enhanced comprehension, dependence, ethical uncertainty). These codes were grouped into broader themes reflecting shared meanings (Karimi et al., 2024).

Thematic analysis enabled a deeper understanding of how GenAI influences learning, engagement, and ethical awareness. To ensure credibility, themes were validated through peer debriefing and member checking, minimizing bias. The analysis produced a trustworthy narrative highlighting both benefits and challenges of GenAI use (Sharma et al., 2024; Durlik et al., 2024).

**Ethical Consideration.** This study adhered to ethical standards, particularly in engaging human participants. Ethical approval was secured prior to data collection, and informed consent was obtained, outlining the study's purpose, procedures, and participants' rights, including voluntary participation and withdrawal without consequences. Neutrality was maintained to avoid coercion (Karimi et al., 2024; Ala & Zhang, 2020). Participants' privacy was protected through anonymity using pseudonyms, and all data (e.g., recordings, transcripts) were kept confidential and securely stored, with access limited to the researchers and deleted after the study (Sharma et al., 2024). Participants received clear explanations of the interview process and were allowed to ask questions. Sensitive topics were handled carefully to minimize distress and ensure well-being (Karimi et al., 2024; Kim & Dekker, 2021). The study upheld principles of informed

consent, confidentiality, and protection from harm.

## RESULTS

### Students' Perceptions of Generative AI Tools in Academic Learning

***Theme 1: AI as a Supplementary Tool.*** The first theme highlights students' perception of GenAI as a supplementary academic tool that supports but does not replace traditional learning processes. Participants described GenAI as an accessible learning companion that assists them in understanding lessons, generating ideas, and simplifying complex academic content. Rather than functioning as a primary source of knowledge, AI was viewed as an educational aid that enhances comprehension and improves learning efficiency.

Students emphasized that GenAI is particularly useful in explaining difficult concepts in simpler terms and providing immediate academic support outside classroom hours. This accessibility allows them to engage in self-paced learning and reduces dependence on scheduled consultations or peer assistance. Participant 1 stated:

"*My experience using generative AI tools has mostly been great. They help me understand difficult lessons like computations, vocabulary, and theories, and provide simpler explanations in layman's terms. It feels convenient because I can ask whenever I want without feeling embarrassed or pressured.*"

This indicates that GenAI serves as a supportive academic resource that enhances students' comfort and independence in learning. Similarly, Participant 2 explained:

"*I think AI tools are becoming a normal part of learning, similar to how calculators became standard in math. They help with understanding, brainstorming, and organizing ideas, but they still require students to think critically and make their own decisions. For me, they're a useful support tool, not a replacement for actual learning.*"

This response reflects the perception that GenAI functions as an assistive tool that complements rather than replaces cognitive engagement and critical thinking. Furthermore, Participant 3 shared:

"*Para sa'kin, AI tools fit well sa academic learning ngayon kasi nagiging mas accessible ang impormasyon. Fast silang magbigay ng insights and examples na nakakatulong sa pag-intindi. Pero dapat ginagamit sila responsibly, guide lang sila, hindi kapalit ng legit learning. Kailangan pa rin critical thinking ng students.*"

*(Translation: For me, AI tools fit well in academic learning nowadays because they make information more accessible. They quickly provide insights and examples that help with understanding. However, they should be used responsibly—they are only a guide, not a replacement for legitimate learning. Students still need critical thinking.*)

Overall, the findings suggest that students view GenAI as a supplementary educational tool that enhances understanding and supports independent learning while maintaining the necessity of human cognition and academic responsibility.

***Theme 2: AI for Clarification and Verification.*** The second theme reflects students' use of GenAI as a tool for clarification and verification of academic content. Participants described using AI to confirm answers, validate ideas, and clarify confusing concepts encountered during coursework. This function was particularly valuable in subjects that involve technical processes, computations, and theoretical explanations.

Students reported that GenAI provides immediate feedback, allowing them to check their understanding and correct errors in real time. This reduces uncertainty and enhances confidence in completing academic tasks. Participant 4 explained:

"*I use AI when I'm not sure about my answers or when I want to double-check my work. It helps me understand where I made mistakes and gives clearer explanations so I can improve.*"

This statement demonstrates the role of AI in reinforcing accuracy and supporting reflective learning. Similarly, Participant 5 stated:

"*Sometimes I use AI to verify if my ideas are correct or if I understood the lesson properly. It's like having a quick reference whenever I get confused.*"

Participant 6 added: *"It helps me confirm answers especially in subjects with computations or procedures. I can immediately see if I am on the right track."*

Collectively, these responses indicate that GenAI functions as a cognitive support tool that assists students in validating academic outputs and improving conceptual accuracy. However, students still recognize the importance of instructor guidance in ensuring correctness and academic integrity.

***Theme 3: Controlled and Limited Usage.*** The third theme highlights students' awareness of the need for controlled and responsible use of GenAI tools in academic learning. While students acknowledge the benefits of AI, they also emphasize the importance of moderation to avoid over-reliance and potential misuse.

Participants expressed concerns that excessive dependence on AI may hinder the development of critical thinking skills and academic independence. As such, they reported using AI selectively and primarily as a guide rather than a substitute for personal effort. Participant 7 stated:

"*AI is helpful, but I make sure not to rely on it too much. I still try to answer on my own first before checking it.*"

Participant 8 added: "*It should be used responsibly. If students depend on it all the time, they won't learn how to think critically or solve problems by themselves.*"

Participant 9 further explained: "*For me, AI is just an assistant. You can use it, but you need to limit it. Otherwise, it defeats the purpose of learning.*"

These responses highlight students' conscious effort to regulate their use of GenAI tools to maintain academic integrity and ensure meaningful learning. The findings suggest that learners are aware of both the advantages and risks associated with AI use, and they adopt self-imposed strategies to maintain balance.

Across all three themes, the findings reveal that students perceive Generative AI as a valuable academic support system that enhances learning through accessibility, clarification, and efficiency. However, they also demonstrate a strong awareness of its limitations, emphasizing that AI should be used responsibly and in moderation. Rather than replacing traditional learning methods or academic instruction, GenAI is positioned as a complementary tool that supports but does not substitute human cognition, critical thinking, and academic engagement.

**Students' Use of Generative AI for Academic Tasks and Study Support**

***Theme 1: AI as a Supplementary Academic Tool.*** The first theme highlights students' perception of GenAI as a supplementary academic tool that enhances learning without replacing independent study. Participants described AI as an accessible academic companion that assists in understanding complex concepts, generating ideas, and simplifying difficult lessons. However, they consistently emphasized that AI functions only as a support system and not as a substitute for actual learning and critical thinking.

Students valued GenAI for its ability to provide immediate explanations and academic assistance, particularly when dealing with difficult subjects. Its accessibility allows

learners to study at their own pace and revisit concepts without pressure or embarrassment. Participant 1 stated:

"*My experience using generative AI tools has mostly been great. They help me understand difficult lessons like computations, vocabulary, and theories, and provide simpler explanations in layman's terms. It feels convenient because I can ask whenever I want without feeling embarrassed or pressured.*"

Similarly, Participant 2 explained: *"I think AI tools are becoming a normal part of learning, similar to how calculators became standard in math. They help with understanding, brainstorming, and organizing ideas, but they still require students to think critically and make their own decisions. For me, they're a useful support tool, not a replacement for actual learning.*"

Participant 3 further added: *"Para sa'kin, AI tools fit well sa academic learning ngayon kasi nagiging mas accessible ang impormasyon. Fast silang magbigay ng insights and examples na nakakatulong sa pag-intindi. Pero dapat ginagamit sila responsibly, guide lang sila, hindi kapalit ng legit learning. Kailangan pa rin critical thinking ng students."*

*(Translation: For me, AI tools fit well in academic learning nowadays because they make information more accessible. They quickly provide insights and examples that help with understanding. However, they should be used responsibly—they are only a guide, not a replacement for legitimate learning. Students still need critical thinking.)*

Overall, the findings suggest that students perceive GenAI as a supportive academic resource that enhances comprehension and accessibility while maintaining the importance of independent learning.

***Theme 2: Responsible, Critical, and Supplemental Use.*** The second theme highlights students' responsible, critical, and supplemental use of GenAI in academic tasks. Participants emphasized that AI should not replace independent learning but should instead be used as a tool to support understanding, refinement, and clarification of academic work. Students demonstrated intentional strategies to regulate their use of AI and ensure academic integrity.

Participants reported that they first attempt academic tasks independently before consulting AI. They also use AI to verify answers, clarify concepts, and refine outputs rather than directly completing assignments. This demonstrates an active and reflective approach to learning. Participant 3 stated:

"*Para hindi maging dependent, ginagawa ko siyang supplement lang. Una kong sinusubukan sagutin o intindihin ang topic on my own. After, saka ko ginagamit ang AI for clarification. Nagse-set din ako ng limit, hindi ko pinapagawa lahat. Pinipili ko lang yung parts na pang-support sa learning ko."*

*(Translation: To avoid becoming dependent, I use it only as a supplement. I first try to answer or understand the topic on my own. Afterward, I use AI for clarification. I also set limits; I don't let it do everything. I only choose the parts that support my learning.)*

Participant 4 added:*"I still read my materials, take notes, and try to answer on my own first before using AI to refine or check my work.*"

These responses indicate that students maintain independent learning practices while selectively using AI as a cognitive support tool.

Overall, the findings show that students are strategic users of GenAI who prioritize critical thinking and self-directed learning.

***Theme 3: Strategic Regulation and Responsible Use of GenAI.*** The third theme emphasizes students' controlled and limited use of GenAI in academic learning. Participants demonstrated awareness of the risks of overreliance on AI, particularly its potential impact on critical thinking, problem-solving skills, and academic

integrity. As a result, students intentionally regulate their engagement with AI tools.

Findings reveal that students adopt self-imposed limits, such as completing tasks independently before using AI, using AI only for specific parts of assignments, and avoiding full dependence on generated responses. These practices reflect an effort to balance technological assistance with genuine learning. Participant 7 stated:

"*AI is helpful, but I make sure not to rely on it too much. I still try to answer on my own first before checking it.*"

Participant 8 explained: *"It should be used responsibly. If students depend on it all the time, they won't learn how to think critically or solve problems by themselves.*"

Participant 9 further added:

"*For me, AI is just an assistant. You can use it, but you need to limit it. Otherwise, it defeats the purpose of learning.*"

Overall, the findings suggest that students are conscious of maintaining control over their use of GenAI. They recognize its benefits but also its limitations, ensuring that it remains a supplementary tool rather than a substitute for meaningful learning.

Across the three themes, the findings reveal that students perceive Generative AI as a valuable academic support tool that enhances understanding, provides clarification, and assists in learning tasks. However, students consistently emphasize responsible and limited use to preserve critical thinking, academic integrity, and independent learning. This indicates that GenAI is integrated into student learning practices as a controlled, supplementary, and strategically used educational resource rather than a replacement for traditional learning methods.

**Benefits Students Experienced from Using Generative AI in Education**

***Theme 1: Improved Access to Learning Support and Academic Assistance.*** The first theme highlights the benefit of improved access to learning support and academic assistance through the use of Generative AI. Participants described GenAI as an accessible and readily available academic companion that provides immediate explanations, clarifications, and guidance on various academic tasks. This accessibility allows students to engage in learning anytime and anywhere, particularly when traditional academic support such as instructors or peers is not immediately available.

Students emphasized that GenAI helps bridge gaps in understanding by simplifying complex concepts and offering alternative explanations that are easier to comprehend. This reduces learning barriers and allows students to engage more confidently with difficult subject matter. Participant 1 stated:

"*My experience using generative AI tools has mostly been great. They help me understand difficult lessons like computations, vocabulary, and theories, and provide simpler explanations in layman's terms. It feels convenient because I can ask whenever I want without feeling embarrassed or pressured.*"

Participant 2 added: *"AI tools are becoming a normal part of learning, similar to how calculators became standard in math. They help with understanding, brainstorming, and organizing ideas, but they still require students to think critically and make their own decisions. For me, they're a useful support tool, not a replacement for actual learning.*"

Participant 3 further explained: *"Para sa'kin, AI tools make learning more accessible kasi mabilis silang magbigay ng explanations and examples na nakakatulong sa pag-intindi. Mas madali ko nang naiintindihan ang lessons dahil may guide ako anytime."*

*(Translation: For me, AI tools make learning more accessible because they quickly provide explanations and examples that help with*

*understanding. It is easier for me to understand lessons because I have a guide anytime.)*

Overall, the findings suggest that GenAI improves access to academic support by providing immediate, flexible, and user-friendly learning assistance.

***Theme 2: Development of Responsible and Strategic Learning Practices.*** The second theme emphasizes the development of responsible and strategic learning practices among students in using Generative AI. Participants reported that while GenAI is helpful, they intentionally regulate its use to ensure it does not replace independent learning. Instead, they use AI as a supplementary tool for clarification, verification, and refinement of academic work.

Students described adopting structured learning behaviors such as attempting tasks independently first, checking AI-generated outputs against lecture materials, and using AI selectively for specific learning needs. These practices demonstrate awareness of academic integrity and the importance of maintaining critical thinking skills. Participant 1 stated:

*"I still read my materials, take notes, and try to answer on my own first before using AI to refine or check my work."*

Participant 2 explained: *"Para hindi ako maging dependent sa AI, ginagawa ko muna yung task on my own bago ako mag-check or mag-ask sa AI. Pinipili ko lang yung kailangan ko ng help."*

*(Translation: To avoid becoming dependent on AI, I first do the task on my own before checking or asking AI. I only choose the parts where I need help.)*

Participant 3 further added: *"AI is just a guide for me. Hindi ko siya ginagamit para gawin lahat, kasi kailangan pa rin ng sariling analysis at effort sa learning."*
*(Translation: AI is just a guide for me. I do not use it to do everything because personal analysis and effort are still needed in learning.)*

These responses indicate that students are not passive users of AI but rather intentional and self-regulated learners who maintain a balance between technological assistance and independent academic effort.

***Theme 3: Enhanced Understanding, Efficiency, and Confidence.*** The third theme highlights the benefits of enhanced understanding, efficiency, and confidence resulting from the use of Generative AI. Participants reported that GenAI significantly improves comprehension by simplifying complex topics, generating concise explanations, and providing relevant examples. Students also noted that AI helps organize learning materials, produce structured outlines, summarize lengthy discussions, and create study guides that support faster and more efficient review.

These features reduce the time required for information processing and allow students to focus on higher-order thinking tasks such as analysis, evaluation, and application. As a result, students experience improved academic performance and increased confidence in their learning abilities.

Participant 1 stated: *"Yes, it has. I feel more confident when I clearly understand the topic after asking AI to explain it. It made me realize that I thought the topic was too hard to understand, but eventually, after asking AI, it was actually easy to understand, and I could easily cope up. Overall, it improves my performance because I can study with this efficiently."*

Participant 2 explained: *"AI has made studying easier by breaking down complex topics into simple explanations and giving quick examples that match my learning style. Instead of spending a long time searching for information, I can get concise summaries or step-by-step guides immediately. It also makes learning more engaging because I can ask follow-up questions anytime, explore ideas interactively, and even visualize concepts through generated images or diagrams."*

Participant 3 further shared: *"Yes, feeling ko nag-improve performance ko dahil sa AI. Mas mabilis ako mag-review at gumawa ng outputs dahil organized ang information. Nadagdagan din confidence ko sa assignments kasi may guide ako for checking errors. Pero sinisigurado ko pa rin na ako mismo ang nag-analyze ng content."*

*(Yes, I feel that my performance has improved because of AI. I review and complete outputs faster since the information is organized. My confidence in assignments has also increased because I have a guide to check for errors. However, I still make sure that I analyze the content myself.)*

Overall, the findings indicate that GenAI contributes not only to improved cognitive understanding and learning efficiency but also to affective outcomes such as increased confidence, reduced anxiety, and enhanced academic readiness.

Across the three themes, the findings reveal that students experience multiple benefits from using Generative AI in education, including improved access to learning support, development of responsible learning practices, and enhanced understanding, efficiency, and confidence. While students recognize the advantages of GenAI in facilitating learning, they also demonstrate awareness of the importance of regulation and independent thinking. This suggests that GenAI is most beneficial when used as a supplementary, structured, and strategically controlled educational tool that supports but does not replace traditional learning processes.

**Challenges and Concerns in Students' Use of Generative AI**

***Theme 1: Risks Associated with Inaccurate and Misleading Information.*** The first theme highlights students' concerns regarding the risks associated with the use of Generative AI, particularly the possibility of receiving inaccurate, incomplete, or misleading information. Participants recognized that although AI tools can provide immediate answers and explanations, the information generated is not always reliable. As a result, students emphasized the importance of verifying AI-generated responses before incorporating them into academic tasks. The findings suggest that students remain cautious about blindly accepting AI outputs and acknowledge the potential consequences of relying on incorrect information. Participant 2 stated:

"*At the same time, it pushes me to think critically and evaluate the information it provides."*

Participant 4 shared: "*I still make sure I analyze the content myself even if I use AI for guidance*."

Participant 3 explained: "*Natuto rin akong maging mas critical, hindi lahat ng sagot tanggap agad."*

*(Translation: I learned to be more critical; I do not immediately accept every answer.)*

These responses indicate that students are aware of the risks associated with AI-generated content and recognize the need to critically evaluate information to avoid academic errors and misinformation.

***Theme 2: Academic Integrity Issues in the Use of Generative AI.*** The second theme focuses on concerns related to academic integrity. Participants acknowledged that the convenience and accessibility of Generative AI may create opportunities for students to misuse the technology in completing academic requirements. The ability of AI tools to generate responses, summaries, and written outputs quickly raises concerns about originality, authenticity, and the extent of students' own contributions to their academic work. Students emphasized the importance of using AI responsibly and ensuring that it serves as a learning aid rather than a substitute for genuine academic effort. Participant 4 stated:

*"I still make sure I analyze the content myself even if I use AI for guidance."*

Participant 2 explained: *"I use AI as a guide, but I make sure to check and revise the information before submitting my work."*

Participant 3 shared: *"Hindi dapat umasa nang buo sa AI dahil kailangan pa rin ang sariling pag-iisip at pagsusuri."*

*(Translation: We should not rely entirely on AI because personal thinking is still necessary.)*

These findings suggest that students are conscious of potential academic integrity issues and recognize their responsibility to ensure that AI-assisted work remains ethical, authentic, and reflective of their own learning.

***Theme 3: Dependency Concerns and Reduced Learning Engagement.*** The third theme highlight concerns regarding the development of dependency on Generative AI. Participants acknowledged that the speed and convenience offered by AI tools can make learning tasks easier and more efficient. However, they also recognized that excessive reliance on AI may reduce students' motivation to engage deeply with learning materials, conduct independent research, and develop problem-solving skills. The findings suggest that students are aware of the possibility that frequent AI use may lead to reduced learning effort and overdependence on technological assistance. Participant 1 stated:

*"They help me understand difficult lessons like computations, vocabulary, and theories, and provide explanations in layman's terms."*

Participant 2 shared: *"Instead of spending a long time searching for information, I can get concise summaries or step-by-step guides immediately."*

Participant 3 explained: *"Mas mabilis ako mag-review at mas organized ang information."*

*(Translation: I can review faster and the information is more organized.)*

While these experiences demonstrate the usefulness of AI tools, participants also implied that constant access to immediate answers may discourage independent exploration and create a tendency to depend on AI-generated support for academic tasks. Overall, students identified several challenges and concerns related to the use of Generative AI in education. These concerns include the risks of inaccurate information, potential academic integrity issues, and the possibility of developing dependency on AI-assisted learning. Although participants acknowledged the benefits of AI in supporting academic tasks, they emphasized the importance of responsible use, information verification, ethical practice, and maintaining independent learning habits to ensure that Generative AI enhances rather than diminishes the educational experience.

**DISCUSSION.** The findings of this study indicate that Generative Artificial Intelligence (GenAI) plays a significant and multifaceted role in shaping students' learning experiences. Participants generally perceive GenAI as a valuable academic support tool that enhances accessibility, clarifies complex concepts, and increases efficiency in information processing. These benefits contribute to improved academic confidence and engagement, particularly when students encounter difficult or technical subject matter. However, students do not view GenAI as a replacement for traditional learning. Instead, they position it as a supplementary tool that supports understanding while still requiring independent thinking. This balanced perception reflects a growing awareness of the appropriate role of AI in education. Students recognize both the advantages and limitations of GenAI, particularly with regard to issues of accuracy, reliability, and originality. As a result, their use of AI is often cautious and reflective, suggesting an emerging sense of responsibility in integrating technology into academic practices.

In terms of learning processes, GenAI appears to influence not only what students learn but also how they learn. Many participants reported using AI for clarification and verification of

information, particularly when engaging with complex academic content. Rather than passively accepting AI-generated responses, students frequently cross-check outputs against textbooks, lecture materials, or their own prior knowledge. This behavior demonstrates the development of metacognitive skills, including self-monitoring and critical evaluation. Additionally, students exhibit self-regulated learning practices by deliberately limiting their reliance on AI. They often attempt to complete tasks independently before consulting GenAI and use it mainly for refinement or confirmation. This intentional control suggests that students are actively managing the potential risks of overdependence. At the same time, concerns about excessive reliance highlight the need for continued academic guidance to ensure that students maintain critical thinking and problem-solving skills. The integration of GenAI, therefore, encourages more active and reflective engagement with learning but requires support to sustain its benefits.

The study further reveals that while GenAI enhances efficiency, understanding, and confidence, it also raises important academic and ethical concerns. Students acknowledge that AI-generated outputs may lack accuracy or contextual depth, making verification essential. Issues related to originality and academic integrity also emerge, especially in relation to the ethical use of AI-generated content. These concerns are particularly significant in specialized domains such as maritime education, where precision and analytical judgment are critical. Despite these risks, GenAI contributes to more adaptive learning strategies by encouraging conceptual understanding, flexible thinking, and exploratory learning approaches. Students move beyond rote memorization and engage more deeply with content through questioning and evaluation. However, the effectiveness of these benefits largely depends on responsible use. Overall, the findings highlight a dual perspective: GenAI offers substantial opportunities to enhance academic learning, but its impact is shaped by students' ability to use it critically, ethically, and in alignment with educational goals.

In synthesis, the findings of this study demonstrate that GenAI occupies a complex role in students' academic experiences, simultaneously functioning as a facilitator of learning and a source of potential risk. It enhances accessibility, understanding, efficiency, and confidence while also raising concerns about accuracy, originality, and dependency. The overall pattern suggests that students adopt a balanced and cautious approach, integrating GenAI into their learning in ways that support academic development without fully replacing traditional learning processes. This highlights the importance of promoting responsible AI literacy in education to ensure that students are equipped not only to use these tools effectively but also to critically evaluate and regulate their use in alignment with academic integrity and learning objectives.

**Implications.** The findings of this study have several practical and theoretical implications. Practically, educational institutions may integrate AI tools into learning frameworks while promoting responsible and ethical usage. Teachers can guide students in using AI as a support tool rather than a shortcut. Theoretically, the study reinforces constructivist perspectives by showing how learners actively construct knowledge through interaction with AI technologies. From a policy perspective, institutions may consider developing guidelines on AI use to address concerns related to academic integrity and equitable access.

**Limitations.** This study has several limitations. The small sample size of five participants limits the generalizability of the findings. Additionally, the study focused only on maritime students from a single institution, which may not represent the experiences of students from other disciplines or contexts. The qualitative design also relies on self-reported data, which may be subject to bias. These limitations suggest that the findings should be interpreted within the specific context of the study.

**Future Directions.** Future research may include a larger and more diverse sample to improve generalizability. Comparative studies across different academic disciplines could provide broader insights into the use of generative AI in education. Further studies may also explore quantitative approaches to measure the impact of AI on academic performance. Additionally, research on institutional policies and ethical frameworks for AI integration in education would be beneficial.

**Conclusions.** The findings indicate that Generative Artificial Intelligence (GenAI) has become an important component of students' academic experiences, particularly in technically demanding fields such as maritime education. Students perceive GenAI as an accessible and non-judgmental support tool that provides immediate explanations and clarifications, helping them engage more confidently with complex concepts. Rather than replacing instructors, GenAI is viewed as a complementary resource that enhances learner engagement, accessibility, and independent inquiry. Its availability reduces learning barriers and academic anxiety, enabling students to approach difficult tasks with greater confidence. This highlights the growing role of AI as a supportive partner in learner-centered educational environments.

The study further reveals that students use GenAI in a deliberate and responsible manner. Participants emphasized maintaining boundaries between AI assistance and independent thinking, often verifying information through reliable academic sources. This reflects the development of self-regulated learning and emerging digital accountability. In maritime education, where analytical reasoning and precision are essential, such practices are particularly important. GenAI also contributes to improved learning efficiency and academic confidence by simplifying complex content, organizing information, and supporting structured learning. These benefits extend beyond cognition, helping reduce stress, increase motivation, and improve preparedness for academic tasks. However, maximizing these advantages requires careful balance to ensure that efficiency does not replace critical engagement.

Despite its benefits, GenAI raises concerns related to accuracy, originality, and over-reliance. Students recognize the risk of misinformation and the importance of verifying AI outputs. They also acknowledge that excessive dependence may hinder independent thinking and authentic learning. At the same time, GenAI influences learning habits by encouraging more exploratory, reflective, and concept-based approaches rather than rote memorization. Overall, the value of GenAI lies in how responsibly it is integrated into learning practices. Educational institutions must establish clear guidelines and promote digital literacy to ensure ethical and effective use. With proper guidance, GenAI can serve as a powerful tool that enhances both academic development and professional readiness.

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