



GENERATIVE ARTIFICIAL INTELLIGENCE AND ITS IMPACT ON LEARNING INITIATIVE, CRITICAL THINKING, AND SELF-COGNITION OF CRIMINOLOGY STUDENTS IN GINGOOG CITY

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ABSTRACT

The increasing use of Generative Artificial Intelligence (GenAI) in higher education has changed how students learn, complete tasks, and access information. In criminology education, tools such as ChatGPT are used for concept clarification, writing support, and task completion. This study aimed to explore the lived experiences of criminology students in Gingoog City regarding their use of GenAI for learning and personal development. Specifically, it examined their experiences with AI, how AI shapes their learning initiatives, critical thinking, and self-awareness, and their aspirations for its future use. The study employed a qualitative phenomenological design. Data were gathered through in-depth interviews and analyzed using Braun and Clarke's thematic analysis. The findings revealed that students viewed AI as a valuable academic support tool that helped them understand difficult concepts, improve writing, organize ideas, and reduce academic stress. However, they also experienced ethical tension, including guilt, reduced pride, and diminished ownership of AI-assisted outputs. While AI supports comprehension, idea generation, and reflection, excessive dependence on it may weaken learning initiative, critical thinking, and independent effort. Students also recognized AI's limitations and practiced verifying its outputs. The study implies the need for a clear policy to promote the fair, responsible, and ethical use of AI in the Criminal Justice Program. This research was completed in July 2026.

Keywords: *Generative Artificial Intelligence, criminology students, lived experiences, critical thinking, learning initiative, ethical AI use, phenomenological study, Criminal Justice Program*

INTRODUCTION

The rapid advancement of Generative Artificial Intelligence (GenAI) has transformed educational practices by reshaping how students access information, construct knowledge, and engage in academic tasks. Tools such as ChatGPT and other AI-powered applications have increasingly become part of students' learning environments, providing opportunities for personalized learning, immediate feedback, idea generation, and academic support. In higher education, GenAI is viewed as both an innovative educational resource and a challenge that warrants careful consideration due to concerns about academic integrity, overreliance, misinformation, and the possible decline in independent thinking (UNESCO, 2023; Kasneci et al., 2023). As institutions continue to adapt to AI-driven educational changes, understanding how students experience and negotiate the use of these technologies has become increasingly important.

In the Asia-Pacific region, the integration of GenAI into education presents both opportunities and challenges influenced by technological readiness, institutional policies, digital infrastructure, and AI literacy. UNESCO (2023) emphasized that responsible AI integration requires not only access to technology but also the development of ethical awareness, critical thinking, and digital competencies among learners. While countries such as China and Singapore have established AI education policies, other educational systems continue to face challenges related to infrastructure limitations and unequal access. These differences shape how students interact with AI tools and influence the quality of their learning experiences (Education at Illinois, 2023).

Recent studies indicate that GenAI has the potential to enhance students' learning initiative, critical thinking, and self-awareness when appropriately integrated into educational practices. AI tools can encourage independent exploration, provide personalized assistance, and support higher-order thinking by allowing students to evaluate, refine, and reflect on generated information (Kasneci et al., 2023; Pallant et al., 2025). Similarly, Weng et al. (2024) noted that GenAI contributes to competency-based learning by supporting lifelong learning skills, problem-solving, and career preparation. However, these benefits are not automatic. Research also warns that excessive dependence on AI-generated responses may weaken analytical reasoning, reduce intellectual autonomy, and encourage superficial learning when students fail to critically evaluate AI outputs (Zhai et al., 2024).

Within higher education, students' perceptions and experiences with GenAI remain complex. Some students view AI as an academic partner that reduces workload, improves productivity, and supports learning efficiency, while others express concerns regarding plagiarism, reduced creativity, and diminished ownership of academic outputs (Yeung et al., 2025; Klimova & Pikhart, 2025). These contrasting perspectives highlight that the educational impact of GenAI depends not only on the availability of technology but also on how students understand, use, and reflect on their interaction with AI systems.

In the Philippine higher education context, the adoption of GenAI is rapidly increasing, particularly in academic writing, research, and learning support activities. Studies show that Filipino students actively utilize AI tools for tasks such as grammar improvement, summarization, brainstorming, and information processing (Fabro et al., 2024). However, concerns remain regarding ethical use, academic integrity, digital literacy, and students' ability to critically assess AI-generated information. Espartinez (2024) emphasized the importance of institutional readiness, clear policies, and faculty development to guide responsible AI integration in Philippine schools. Similarly, Secreto et al. (2025) found that excessive AI dependence may influence students' academic behaviors, raising concerns regarding plagiarism, reduced independence, and weakened critical engagement.

These concerns are particularly significant in criminology education, where students are expected to develop analytical reasoning, ethical judgment, skills in evaluating evidence, and professional decision-making abilities. Criminology students engage with complex concepts involving law, investigation, justice systems, and human behavior; therefore, their use of AI requires more than technological competence. Despite the growing body of research on AI in education, significant gaps remain. Existing studies have primarily focused on general student populations, AI acceptance, academic performance, or technology adoption. Limited attention has been given to students' lived experiences in specialized disciplines such as criminology, particularly regarding how GenAI influences their learning initiatives, critical thinking, self-awareness, and aspirations for future professional development. Furthermore, limited qualitative research has explored how students personally interpret the benefits, challenges, ethical tensions, and transformative effects of interacting with GenAI within the Philippine criminology education context. Addressing this gap is timely because higher education institutions are currently developing policies and practices for responsible AI integration. Understanding students' actual experiences can provide evidence-based insights for educators, administrators, and policymakers in designing AI guidelines that promote responsible use while protecting academic integrity and cognitive development.

Therefore, this study aimed to explore the lived experiences of criminology students regarding the use of Generative Artificial Intelligence. Specifically, it sought to understand how GenAI influenced their learning initiatives, critical thinking, self-awareness, and aspirations for using AI for learning and personal development. By examining these experiences, the study contributed to the growing discourse on ethical AI integration in higher education and provided insights for developing responsible AI policies and practices within criminology education.

Research Questions

The primary purpose of this study was to explore the lived experiences of criminology students in Gingoog City regarding their use of Generative Artificial Intelligence (GenAI) and how these experiences shaped their learning initiative, critical thinking, and self-cognition, as well as their aspirations concerning the use of GenAI for

learning and personal development. Specifically, the study sought to answer the following questions:

1. What is the lived experience of criminology students in Gingoog City in using Generative Artificial Intelligence?
2. How does this experience shape their learning initiative, critical thinking, and self-cognition?
3. What are the aspirations of criminology students in Gingoog City regarding their use of Generative AI for learning and personal development?

METHODOLOGY

This study employed a qualitative phenomenological research design to explore the lived experiences of criminology students regarding their use of Generative Artificial Intelligence (GenAI). The study was conducted in a higher education institution in Philippines. The participants were twelve (12) criminology students representing all four year levels of the program, with three participants selected from each year level through purposive sampling. Participants were selected based on their actual experience using GenAI tools for academic or personal learning purposes and their willingness to participate in an in-depth interview.

Data were gathered using a researcher-developed semi-structured interview guide composed of open-ended questions focusing on students' experiences with GenAI, its influence on learning initiative, critical thinking, self-cognition, and their aspirations regarding AI use. The instrument was developed from related literature and phenomenological research principles and was validated by three experts in criminology, educational technology, and qualitative research to ensure clarity and relevance. After securing approval and consent, interviews were audio-recorded, transcribed, and analyzed using Braun and Clarke's thematic analysis. The study examined how GenAI influenced criminology students' learning, cognitive processes, and future aspirations, while recognizing the limitations of a small sample and single-institution setting.

RESULTS

Lived Experiences of Criminology Students in Using Generative Artificial Intelligence

The study explored the lived experiences of criminology students in using Generative Artificial Intelligence (GenAI) tools such as ChatGPT and similar platforms for academic purposes. The qualitative data were analyzed using Braun and Clarke's (2006) thematic analysis, in which recurring patterns, meanings, and experiences were identified from participants' narratives.

Three major themes emerged: (1) AI as a Learning Scaffold for Understanding and Academic Expression, (2) AI as a Convenient Lifeline during Academic Pressure, and (3) Ethical Unease and Reduced Ownership in AI-Assisted Outputs.

Table 1. Live Experience of Criminology Students in Using Generative Artificial Intelligence

Research Question	Significant Responses	Themes
1. Can you share what it's like using AI tools (like ChatGPT or others) as a criminology student?	<i>"Helpful kaayu ang AI, in terms of our course criminology, dili lang kay siya makapadali sa among trabaho..., but tudloan mi sa pag structure sa paragraph, grammars."</i> (P3)	Theme 1: AI as a Learning Scaffold for Understanding and Academic Expression
	<i>"Sometimes, if kanang gadali na gyud like, as a criminology, physically and mentally kapoy gyud, so mangayo nalang ko guide sa AI kung unsa ako e answer sa assignment"</i> (P12)	Theme 2: AI as a Convenient Lifeline During Academic Pressure
	<i>"Using ChatGPT or AI tools makes my life easier because it gives quick information; it is convenient, accessible, and saves time."</i> (P6)	Theme 3: Ethical Unease and Reduced Ownership in AI-Assisted Outputs
	<i>"Pinakauna, guilty feels like murag dili ako ang nag himo projects and assignments kay computer nay ga himo."</i> (P7)	

Theme 1: AI as a Learning Scaffold for Understanding and Academic Expression

The findings revealed that criminology students used GenAI as an academic support tool to understand unfamiliar concepts, improve written expression, organize ideas, and develop academic outputs. Participants described AI as a learning scaffold because it helped them clarify technical terms, improve grammar, structure paragraphs, and communicate their ideas more effectively.

The participants' experiences indicate that AI was primarily used to support comprehension and expression rather than simply provide answers. Students relied on AI when encountering difficult criminological concepts, unfamiliar terminology, and challenges in academic writing. Through AI assistance, students were able to develop explanations and organize their thoughts more clearly.

Theme 2: AI as a Convenient Lifeline during Academic Pressure

The findings showed that students also experienced GenAI as an immediate source of assistance during academically demanding situations. Participants reported using AI when faced with difficult tasks, limited time, insufficient preparation, or physical or mental exhaustion.

Students perceived AI as convenient because it provided quick access to information and guidance, allowing them to manage academic requirements more efficiently. These experiences demonstrate that AI has become a practical support mechanism that helps students cope with academic pressure and workload demands.

Theme 3: Ethical Unease and Reduced Ownership in AI-Assisted Outputs

The findings further revealed that students experienced ethical concerns regarding the use of AI in academic tasks. Although AI helped make schoolwork easier and faster, some participants expressed feelings of guilt, reduced motivation, and diminished ownership over AI-assisted outputs. Participants perceived that excessive reliance on AI could diminish a sense of personal achievement because outputs may no longer fully reflect their own effort, reasoning, and understanding. These experiences reflect the tension between the convenience AI offers and the importance of maintaining academic authenticity and personal responsibility.

Summary of Findings

Overall, the lived experiences of criminology students show that Generative Artificial Intelligence serves both supportive and challenging roles in academic learning. AI functions as a learning scaffold that improves understanding, writing, and idea development, while also serving as a convenient resource during academic pressure.

However, students also recognize ethical concerns related to dependence, reduced ownership, and authenticity of academic outputs. These findings suggest that GenAI should be integrated as a supplementary learning tool that enhances student learning while preserving independent thinking, personal effort, and academic integrity.

How AI Use Shapes Learning Initiative, Critical Thinking, and Self-Cognition

This section presents how the use of Generative Artificial Intelligence (GenAI) shaped the learning initiative, critical thinking, and self-cognition of criminology students. The thematic analysis revealed that AI influenced students' academic experiences in both positive and negative ways. While AI supported understanding, idea development, and information evaluation, participants also recognized that excessive dependence could weaken independent learning, reduce critical engagement, and affect personal responsibility.

Three major themes emerged: (1) Learning Initiative Weakened by Dependence on AI, (2) Critical Thinking Shaped by AI-Supported Understanding and Verification, and (3) Self-Cognition Developed through Awareness of Growth, Limits, and Responsibility.

Table 2. How AI use shapes Learning Initiative, Critical Thinking, and Self-Cognition of Criminology Students

Research Question	Significant Responses	Themes
1. How has using AI changed the way you study or think as a criminology student?	<i>"If too much dependency sa AI tools mag reduce sab imo ability to think critically and learning initiative" (P6)</i>	Theme 1: Learning Initiative Weakened by Dependence on AI
	<i>As a criminology student, which requires analyzing cases or laws and broader explanation and mas mapadali siya, it helps improve my critical thinking because dali and mas ma motivate ko ang topic is ako masabtan..."(P6)</i>	Theme 2: Critical Thinking Shaped by AI-Supported Understanding and Verification
	<i>"I usually double check AI's answer because sometimes AI, does not give reliable facts" (P11)</i>	Theme 3: Self-Cognition Developed Through Awareness of Growth, Limits, and Responsibility

Theme 1: Learning Initiative Weakened by Dependence on AI

The findings revealed that while Generative Artificial Intelligence assisted students in completing academic tasks, excessive reliance on AI affected some students' initiative in learning. Participants reported that frequent reliance on AI reduced their motivation to study independently, to construct their own answers, and to exert personal effort in completing academic requirements.

Participant 1 expressed:

"Dili naka ganahan mag study. Magsalig naka sa AI." (P1)
("You no longer feel like studying. You become dependent on AI.")

Similarly, Participant 12 shared:

"Base on my experience dili, sometimes kasalig nalang ko sa AI." (P12)
("Based on my experience, no, sometimes I just rely on AI.")

Participants also recognized that excessive reliance on AI could affect their ability to think independently. Participant 6 stated:

“If too much dependency sa AI tools mag reduce sab imo ability to think critically and learning initiative.” (P6)

These responses indicate that although AI provides convenience and immediate assistance, excessive reliance may shift students from active engagement toward passive dependence. Instead of using AI to support learning, some students may rely on generated responses rather than developing their own understanding, analysis, and problem-solving skills.

Theme 2: Critical Thinking Shaped by AI-Supported Understanding and Verification

The findings showed that GenAI influenced students' critical thinking by supporting their understanding of complex concepts, analysis of academic content, generation of ideas, and evaluation of information. Participants viewed AI as a cognitive support tool that simplified difficult criminological concepts and improved their understanding of legal and academic materials.

Participant 6 explained:

“As a criminology student, which requires analyze case or laws and broader explanation and mas mapadali siya, it helps improve my critical thinking because dali and mas ma motivate ko ang topic is ako masabtan.” (P6)

“As a criminology student, our course requires analyzing cases or laws and broader explanations. AI makes this easier and helps improve my critical thinking because I understand the topic more easily and become more motivated.”

Participant 7 also shared:

“As a criminology student, most of the time, dili man gyud naku ma memorize tanan kung unsay naa sa balaod, thru AI, mas masabtan pa naku ang mga concepts.” (P7)

“As a criminology student, most of the time I cannot memorize everything in the law, but through AI, I can understand the concepts better.”

However, participants also recognized that AI-generated information required evaluation.

Participant 11 stated:

“I usually double check AI’s answer because sometimes AI does not give reliable facts.” (P11)

These experiences demonstrate that AI influenced critical thinking in two ways. First, it supported comprehension and idea development by making difficult information easier to understand. Second, awareness of AI limitations encouraged students to verify information and avoid accepting AI-generated responses without evaluation.

Theme 3: Self-Cognition Developed Through Awareness of Growth, Limits, and Responsibility

The findings revealed that GenAI contributed to students' self-cognition by influencing their awareness of personal growth, learning habits, limitations, and responsibility. Participants described AI as a tool that expanded their knowledge, increased confidence, and encouraged reflection on their own learning process.

Participant 2 shared:

"Sa pag gamit naku sa AI, nag improve ako self, dili ra diay dira taman ako way of thinking nag expand akong knowledge." (P2)
("Through using AI, I improved myself. I realized that my way of thinking does not stop there; my knowledge expanded.")

The same participant further explained that AI provided motivation to continue learning and developing ideas. However, students also became aware that AI has limitations and requires human judgment. Participants recognized that AI-generated information may not always be accurate, leading them to verify responses before accepting them.

These findings suggest that AI encouraged students to reflect on both the benefits and limitations of technology in learning. While AI supported confidence, understanding, and knowledge expansion, it also increased students' awareness of their responsibility to evaluate information and maintain independent judgment.

Summary of Findings

The findings demonstrate that Generative Artificial Intelligence shaped criminology students' learning initiative, critical thinking, and self-cognition in both enabling and limiting ways. AI supported students by improving understanding, expanding ideas, and encouraging information verification. However, excessive dependence on AI weakened some students' motivation, independent learning, and personal effort. Overall, the findings suggest that AI can enhance learning when used reflectively and responsibly.

However, passive dependence may hinder the development of independent thinking and academic responsibility. Therefore, AI integration in criminology education should emphasize balanced use, critical evaluation, and reflective learning practices that preserve students' effort, accountability, and professional judgment.

Aspirations of Criminology Students Regarding the Use of Generative Artificial Intelligence for Learning and Personal Development

This section presents the aspirations of criminology students regarding their future use of Generative Artificial Intelligence (GenAI) for academic learning, personal development, and professional practice.

The findings revealed that students view AI as a valuable tool that should be used responsibly and ethically, with human judgment. Participants expressed aspirations to use AI as a guide for learning while maintaining independent thinking, as well as to use it as a professional support tool in future criminology-related careers.

Two major themes emerged from the thematic analysis: (1) Responsible and Reflective AI Use for Authentic Learning and (2) AI as a Future Professional Aid in Law Enforcement and Career Practice.

Table 3. Aspirations of criminology students in Gingoog City regarding their use of Generative AI for learning and personal development

Research Question	Significant Responses	Themes
1. What are your goals or hopes for using AI in your studies and future career?	<i>“ako goal sa pag gamit sa AI, dili kaayu mag salig sa AI, mag kuha lang information sa AI, unya self-learning” (P5)</i> <i>“My goals when using AI in my studies, I don’t want to be more dependent because it will reduce my ability to think critically and also effort” (P6)</i> <i>“In my future job as a police officer, AI can help me recall the information that I learned during my college days” (P5)</i> <i>“If ma police naku puhon, makatabng ang AI, mag provide og investigative report” (P10)</i> <i>“If ma instructor ko magamit naku AI, labi na pag buhat sa exam, ppt, research” (P9)</i>	Theme 1: Responsible and Reflective AI Use for Authentic Learning Theme 2: AI as a Future Professional Aid in Law Enforcement and Career Practice

Theme 1: Responsible and Reflective AI Use for Authentic Learning

The findings revealed that criminology students aspire to use Generative Artificial Intelligence responsibly and in a balanced manner. Participants emphasized that AI should serve as a learning guide rather than a replacement for personal effort, independent thinking, and self-directed learning. Students expressed awareness that excessive dependence on AI may negatively affect their ability to think critically and develop their own understanding.

Participant 5 shared:

“Ako goal sa pag gamit sa AI, dili kaayu mag salig sa AI, mag kuha lang information sa AI, unya self-learning.” (P5)
(“My goal in using AI is not to depend on it too much, but only to get information from it and still practice self-learning.”)

Similarly, Participant 12 stated:

“I hope using AI to guide lang, dili e depend nalang nimo tanan saiya.” (P12)
(“I hope AI will only be used as a guide and not something you fully depend on.”)

Participants also emphasized the importance of evaluating AI-generated information rather than accepting outputs at face value. Participant 8 emphasized:

“Dili dapat tanan response sa AI, kay imo e absorb, e evaluate sa kung sakto ba o dili.” (P8)
(“You should not absorb all AI responses immediately; you need to evaluate whether they are correct or not.”)

These responses demonstrate that students aspire for a reflective approach to AI use. They recognize AI's usefulness but also understand that meaningful learning requires personal engagement, critical evaluation, and responsibility. Their aspirations reflect a desire for AI integration that strengthens learning while preserving human reasoning and academic authenticity.

Theme 2: AI as a Future Professional Aid in Law Enforcement and Career Practice

The findings further revealed that criminology students perceive Generative Artificial Intelligence as a valuable tool that may support their future professional roles. Participants envisioned AI applications beyond academic activities, particularly in law enforcement, investigation, decision-making, teaching, and professional knowledge development.

Students expressed that AI could assist them in recalling information learned during their academic training and applying knowledge in professional situations.

Participant 5 stated:

"In my future job as a police officer, AI can help me recall the information that I learned during my college days." (P5)

Similarly, Participant 1 explained that AI could provide assistance during future law enforcement activities:

"If mag law enforcement in future, sa kana mga crime scene, mag gamit gihapon ko AI, if dili na madumdoman kato past na natun-an." (P1)

("If I work in law enforcement in the future, especially in crime scenes, I will still use AI if I cannot remember what I learned before.")

Participants also envisioned AI supporting investigative and professional tasks. Participant 10 shared:

"If ma police naku puhon, makatabang ang AI, mag provide og investigative report." (P10)
("If I become a police officer someday, AI can help by providing an investigative report.")

Beyond law enforcement, students also recognized AI's potential in other professional roles. Participant 9 stated:

"If ma instructor ko magamit naku AI, labi na pag buhat sa exam, ppt, research." (P9)
("If I become an instructor, I can use AI, especially in making exams, PowerPoint presentations, and research.")

These experiences indicate that students view AI as a long-term professional support tool that can enhance efficiency, knowledge recall, and decision-making. However, their aspirations also reflect an understanding that AI should complement rather than replace human judgment, ethical responsibility, and professional accountability.

Summary of Findings

The findings reveal that criminology students aspire to use Generative Artificial Intelligence responsibly, ethically, and reflectively. They view AI as a learning support tool that can provide guidance, information, and assistance while maintaining personal effort, critical thinking, and independent learning. Furthermore, students envision AI as a valuable tool in their future professional practice, particularly in law enforcement, investigation, teaching, and decision-making.

However, they recognize that effective AI integration requires human judgment, ethical awareness, and responsible use. Overall, the aspirations of criminology students

demonstrate that they do not view AI as a replacement for human capability but as a complementary technology that can support learning, professional development, and responsible practice when used appropriately.

DISCUSSION

Lived Experiences of Criminology Students in Using Generative Artificial Intelligence

The findings reveal that criminology students experience Generative Artificial Intelligence (GenAI) as both an academic support tool and a source of ethical challenges. Students described AI as useful in understanding difficult concepts, improving academic expression, and managing academic demands. However, they also recognized concerns regarding dependence, reduced ownership, and authenticity of academic outputs. These findings demonstrate that students' experiences with AI are shaped by both its advantages and limitations.

The finding that students use AI as a learning scaffold for understanding and academic expression is consistent with previous studies emphasizing the educational benefits of GenAI. Fabro et al. (2024) reported that Filipino students commonly use AI tools for grammar improvement, idea organization, and enhancing written communication.

However, the present study extends these findings by providing discipline-specific insights from criminology students. While previous studies generally examined AI use among students across different academic fields, this study highlights how AI supports students dealing with criminological concepts, legal terminology, and analytical requirements. The researchers interpret this as an indication that AI's educational value may be influenced by the nature of the discipline, particularly in fields that require interpretation, analysis, and professional reasoning.

The findings also reveal that students use AI as a convenient support mechanism during academic pressure, particularly when facing difficult tasks, limited deadlines, fatigue, or insufficient preparation. This finding is consistent with Liu et al. (2026), who found that academic stress and performance expectations contribute to greater reliance on GenAI, as students perceive AI as a means to improve efficiency and reduce academic strain. Similarly, studies cited in the introduction indicated that students often use AI to make academic work more manageable and reduce writing-related anxiety.

However, the present findings also highlight a concern identified in previous literature: convenience may encourage overreliance. This is consistent with Zhai et al. (2024), who warned that excessive dependence on AI-generated assistance may reduce students' ability to engage independently with learning tasks. Therefore, the findings support existing research suggesting that AI provides academic benefits but requires proper guidance to prevent passive dependence.

The findings regarding ethical unease and reduced ownership in AI-assisted outputs are also consistent with previous studies on AI ethics in education. Similarly, Yeung et al. (2025) and Klimova and Pikhart (2025) reported that students recognize both the advantages and ethical concerns of AI, particularly regarding academic integrity, authenticity, and dependence.

The present study extends these findings by showing that ethical concerns are not only institutional issues but also personal experiences. Criminology students expressed feelings of guilt and reduced pride when AI-generated outputs seemed disconnected from their own effort. This suggests that academic integrity concerns involve not only compliance with policies but also students' personal understanding of ownership, responsibility, and meaningful learning.

Overall, the findings confirm previous research that GenAI can enhance learning efficiency and academic support while also introducing risks related to dependence and authenticity. The findings suggest that AI should be integrated as a supplementary learning resource supported by ethical guidelines, AI literacy, and practices that preserve student responsibility.

How AI Use Shapes Learning Initiative, Critical Thinking, and Self-Cognition

The findings demonstrate that GenAI influences students' learning initiative, critical thinking, and self-cognition in both positive and negative ways. Students recognized AI as a tool that improves understanding, expands ideas, and supports reflection; however, they also acknowledged that excessive dependence may weaken motivation, independent thinking, and personal responsibility.

The finding that AI may weaken learning initiative through dependence is consistent with concerns identified in previous studies. Zhai et al. (2024) found that excessive reliance on AI-generated assistance may reduce students' ability to make independent judgments and encourage passive engagement with information. Similarly, Tian and Zhang (2025) reported that frequent reliance on AI may reduce deep learning engagement and limit critical analysis. Suresh Ishika et al. (2025) further emphasized that overdependence on AI may encourage passive information consumption rather than active intellectual participation.

These studies support the present findings that some students become less motivated to study independently when AI provides immediate answers. However, the findings also suggest that AI itself is not the cause of reduced initiative; rather, the impact depends on how students use the technology. This extends previous literature by showing that AI dependence is influenced by students' learning behaviors and self-regulation.

The findings regarding AI-supported critical thinking and verification are consistent with studies highlighting AI's potential to enhance cognitive processes. Kasneci et al. (2023) found that GenAI can improve learning by providing explanations, examples, and feedback that support understanding of complex concepts. Similarly, Lei et al. (2025)

emphasized that AI literacy and balanced integration are necessary to ensure that AI strengthens human cognitive abilities.

The present study supports these findings by showing that criminology students use AI to understand laws, analyze concepts, and generate ideas. However, unlike studies that focus mainly on AI's ability to provide information, this study highlights the importance of verification. Students' practice of double-checking AI outputs demonstrates that AI can encourage evaluative thinking when users recognize its limitations.

This finding is consistent with Johri et al. (2024), who reported that students appreciate AI's convenience but remain cautious because AI-generated information may contain inaccuracies. Lau et al. (2025) similarly found that critical AI users verify information, reflect on AI limitations, and evaluate outputs before acceptance. Therefore, the present findings support previous research that responsible AI use requires active evaluation rather than passive acceptance.

The result regarding self-cognition and responsibility awareness are also consistent with previous studies. Johri et al. (2024) emphasized that students develop awareness of AI limitations through interaction with AI tools. Similarly, Bearman et al. (2024) explained that AI use may strengthen evaluative judgment when students assess the quality and reliability of AI-generated responses.

The present study extends these findings by showing that AI influences students' awareness of their own learning process. Students recognized both their improvement and their responsibility to maintain independent judgment. This suggests that AI can contribute to metacognitive development when students reflect on how technology affects their learning.

Overall, the study revealed that GenAI can either strengthen or weaken student development, depending on its use. The findings are consistent with previous research showing that AI enhances learning when combined with critical engagement but may negatively affect learning when used as a substitute for personal effort.

Aspirations of Criminology Students Regarding the Use of Generative AI for Learning and Personal Development

The findings reveal that criminology students aspire to use GenAI responsibly, ethically, and purposefully in both academic and professional contexts. Students expressed that AI should serve as a guide and support tool while maintaining personal effort, critical thinking, and human judgment.

The finding regarding responsible and reflective AI use for authentic learning is consistent with Zhao et al. (2025), who found that GenAI provides greater educational value when used as a cognitive support tool rather than a replacement for student effort. Similarly, Singh et al. (2026) reported that students primarily use AI for clarification,

brainstorming, and learning assistance while maintaining the importance of independent thinking.

The findings also support UNESCO (2024), which emphasized that responsible AI integration requires digital literacy, ethical awareness, and institutional guidance. Fu and Weng (2024) similarly argued that AI use in education should promote autonomy, transparency, and responsible decision-making.

The present study extends these findings by demonstrating that criminology students already recognize the need for ethical AI practices. Their aspirations reflect an understanding that AI must complement human reasoning, particularly in a field where accountability and professional judgment are essential.

The finding that students view AI as a future professional aid in law enforcement and career practice is consistent with studies examining AI applications in professional environments. Schmidt et al. (2025) found that students and faculty perceive AI as a tool that supports continuous learning and workplace preparation. Khan (2025) further emphasized that professionals use AI to enhance expertise rather than replace human capability.

In criminology and law enforcement contexts, the findings support González et al. (2024), who identified AI's growing role in crime analysis, investigation, and predictive technologies. Similarly, Gul and Naznin (2025) highlighted AI's potential applications in criminal justice systems, including digital forensics and crime detection.

However, the present study also emphasizes an important consideration: while students recognize AI's professional value, they continue to view human judgment as necessary. This finding complements previous research by showing that future criminology professionals do not envision AI as a replacement for investigators, educators, or decision-makers, but as a tool that enhances professional capacity.

Overall, the result demonstrated support the existing literature on AI's significant potential for education and professional development. However, the findings reinforce that successful AI integration requires ethical awareness, critical evaluation, and preservation of human responsibility.

Conclusions

This phenomenological study explored the lived experiences of criminology students in Gingoog City regarding their use of Generative Artificial Intelligence (GenAI) and examined how these experiences influenced their learning initiative, critical thinking, self-cognition, and aspirations for learning and personal development. Through in-depth interviews with twelve (12) participants and thematic analysis, the study revealed that GenAI represents both an opportunity and a challenge within criminology education.

The findings conclude that criminology students perceive GenAI as a valuable academic support tool that helps them understand complex concepts, improve academic expression, organize ideas, and manage academic demands. However, their experiences also reveal ethical tensions, including concerns about dependence, reduced ownership, and authenticity of academic outputs. These findings suggest that while AI enhances learning efficiency, its uncontrolled use may affect students' motivation, independent thinking, and sense of academic responsibility.

Furthermore, GenAI influences students' learning initiative, critical thinking, and self-cognition in complex ways. While AI supports comprehension, idea development, and reflective learning, excessive reliance may encourage passive learning and reduce independent intellectual engagement. Nevertheless, students demonstrate awareness of AI limitations by recognizing the importance of verification, evaluation, and maintaining personal judgment when using AI-generated information.

The study also concludes that criminology students aspire to use GenAI responsibly and ethically. They view AI as a supportive tool that can enhance their academic learning and future professional practice in areas such as law enforcement, investigation, decision-making, and knowledge development. However, they emphasize that AI should complement rather than replace human reasoning, professional judgment, ethical responsibility, and accountability.

Based on these findings, responsible AI integration in criminology education requires clear institutional guidelines, AI literacy development, and ethical practices that encourage balanced use. Policies and educational strategies should promote AI as a learning partner that strengthens students' critical thinking, independence, and professional competence while preserving the essential role of human judgment and responsibility.

Recommendations

1. The findings of this study provide insights into how Generative Artificial Intelligence (GenAI) can be responsibly integrated into criminology education. Since students perceive AI as both an academic support tool and a potential source of dependence, educational stakeholders should consider approaches that maximize its benefits while addressing ethical and cognitive concerns.
2. Higher Education Institutions may utilize the findings as a basis for developing institutional guidelines on the responsible and ethical use of GenAI in academic activities. Such policies may include clear provisions on acceptable AI-assisted tasks, academic integrity, proper acknowledgment of AI use, and limitations on activities where independent student performance is essential. Institutions may also consider implementing AI literacy programs to help students and faculty understand the capabilities, limitations, and ethical considerations associated with AI technologies.

3. Educators may apply the findings by designing learning activities that encourage students to use AI as a learning support tool rather than a substitute for personal effort. Classroom practices may include AI-assisted brainstorming, concept clarification, and information exploration while requiring students to demonstrate personal understanding, critical evaluation, and independent analysis. Faculty members may also develop assessment strategies that emphasize reflection, application, and reasoning to reduce passive dependence on AI-generated responses.
4. Students should be encouraged to develop responsible AI practices by critically evaluating AI-generated information, verifying sources, and actively participating in their learning. The findings suggest that AI becomes more beneficial when students engage with it reflectively and recognize their responsibility in evaluating and applying generated information. Future researchers may further examine GenAI experiences using larger, more diverse samples from different institutions, academic disciplines, and geographical contexts to determine whether similar patterns hold across other student populations. Since this study focused only on criminology students from a single institution, future studies may employ comparative approaches involving students from multiple programs or institutions.
5. Further research may also explore the relationship between GenAI use and other educational factors, such as academic performance, learning motivation, self-regulated learning, digital literacy, ethical awareness, and professional competency development. Quantitative studies may be conducted to measure the extent of AI use and its relationship with academic outcomes, while mixed-methods approaches may provide deeper explanations of how students balance AI assistance and independent learning. The findings regarding students' simultaneous appreciation and concern toward AI use also warrant further investigation. Future studies may explore the reasons behind students' ethical concerns, feelings of reduced ownership, and potential dependence on AI-assisted outputs. Understanding these factors may help educators and institutions develop more effective strategies for promoting responsible AI adoption in higher education.

Compliance with Ethical Standards

This study was conducted in accordance with established research ethics standards and institutional guidelines to ensure the protection, dignity, and welfare of all participants. Prior to data collection, informed consent was obtained from each participant after providing a clear explanation of the study's purpose, procedures, potential risks, and expected benefits. Participation was entirely voluntary, and participants were informed of their right to withdraw from the study at any stage without penalty or negative consequences.

The confidentiality and anonymity of participants were strictly maintained throughout the research process. Personal identities were protected using participant codes, and all collected information was handled in compliance with data privacy

principles. Research data were securely stored and were used solely for academic and research purposes. Measures were implemented to safeguard participants' well-being by ensuring that the data gathering process did not cause unnecessary discomfort, harm, or distress.

The researchers declare that there was no conflict of interest in the conduct of this study. The collection, analysis, and interpretation of data were conducted objectively, with efforts made to minimize personal bias and ensure that findings were based solely on participants' responses and the established analytical process. Plagiarism and misrepresentation of information were strictly avoided, and all sources used in the study were properly acknowledged through appropriate citation practices.

The results of this study were utilized exclusively for research and scholarly purposes, contributing to the understanding of criminology students' experiences with Generative Artificial Intelligence while maintaining ethical responsibility throughout the research process.

Acknowledgments

The researchers sincerely express their gratitude to all individuals and institutions who contributed to the completion of this study. Appreciation is extended to the institution for providing support and resources throughout the research process, as well as to the experts who shared their insights during the review and validation of the research instrument.

The researchers are especially grateful to the criminology students who willingly participated and shared their experiences and perspectives, which served as the foundation of this study. Appreciation is also extended to the authors and scholars whose works provided valuable guidance and support in developing the research framework and interpreting the findings.

Finally, the researchers acknowledge all individuals who provided encouragement, assistance, and support throughout the conduct of this research. Their contributions were instrumental in the successful completion of this study.

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APA Citation:

Responso, J. D. L., & Dela Cruz Jr., E. A. (2026). GENERATIVE ARTIFICIAL INTELLIGENCE AND ITS IMPACT ON LEARNING INITIATIVE, CRITICAL THINKING, AND SELF-COGNITION OF CRIMINOLOGY STUDENTS IN GINGOOG CITY. *Ignatian International Journal for Multidisciplinary Research*, 4(8), 1389–1409. <https://doi.org/10.5281/zenodo.22173474>

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