



AI-INDUCED ACADEMIC DEVIANCE: A CRIMINOLOGICAL STUDY ON CHANGES IN STUDENTS' LIFE ACTIVITIES AND CONDUCT

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ABSTRACT

This study examines how artificial intelligence (AI) affects academic deviance among criminology students at the University of the Visayas. Using a quantitative research design, it gathered data from 278 randomly selected respondents to assess how AI tools affect students' study habits, academic integrity, and ethical decision-making. The results show that AI can make learning more efficient and effective, but it also brings risks such as academic dishonesty, overreliance on technology, and reduced independent thinking, problem-solving, and creativity. ChatGPT is the AI tool respondents use most often, showing that conversational AI is becoming more popular in academic settings. The study also finds that students with some experience using AI understand its benefits and challenges, but they do not have advanced skills or a strong understanding of ethics. Gender and year level play important roles in how students use AI. Even though institutions try to encourage ethical use of AI, there is still a gap between what policies say and what actually happens. The study suggests adding AI literacy, ethical guidelines, and monitoring systems to academic programs. This approach supports responsible AI use, protects academic integrity, and helps future criminology professionals think independently. These findings are meant to guide educational strategies and policies as digital learning becomes more common.

KEYWORDS: Artificial Intelligence, Academic Integrity, Criminology Education, Academic Deviance, Student Behavior

INTRODUCTION

Artificial Intelligence (AI) is changing how criminology students study and act in school. As more students use AI tools, it has become easier for them to find information and do their assignments. AI helps students learn difficult legal topics, but it also raises concerns about honesty in schoolwork. Many students now depend on AI, which can lead to cheating and less independent thinking. Because of these changes, it is important to examine how the use of AI affects the behavior and values of students training to work in criminal justice.

The switch from traditional textbooks to artificial intelligence (AI) tools has increased educational accessibility, yet it has likewise introduced the risk of overreliance (Selwyn, 2016; Santos, 2022; Park, 2018). Some students use AI to complete assignments without completely understanding the material, which may lead to plagiarism and other forms of academic dishonesty (Lim & Wang, 2019).

This concern is especially important for criminology students, whose prospective careers require strong ethical standards, and academic dishonesty during training can weaken public trust in the justice system (Souryal, 2015; Braswell, McCarthy, & McCarthy, 2017). While AI can enhance academic performance by streamlining tasks, excessive reliance on these

tools may diminish analytical thinking and problem-solving abilities (Kirschner & De Bruyckere, 2017). Preservation of academic integrity is essential in criminology, as unethical conduct in education can lead to professional misconduct (Pollock, 2019).

This study examines the impact of AI use among criminology students, focusing on its effects on academic integrity, learning behaviors, and overall performance. Through examining students' demographic profiles and usage patterns and assessing the relationship between these factors and academic behaviors, the research provides evidence-based recommendations to promote responsible AI use, support academic integrity, and strengthen the ethical development of future criminal justice professionals.

Conceptual Framework

This study is grounded in the interplay between technological integration in higher education, student behavioral dynamics, and academic integrity within criminal justice education. As Artificial Intelligence (AI) tools became increasingly accessible, the research examined how student background factors interacted with digital tools to produce either positive learning outcomes or AI-induced academic deviance.

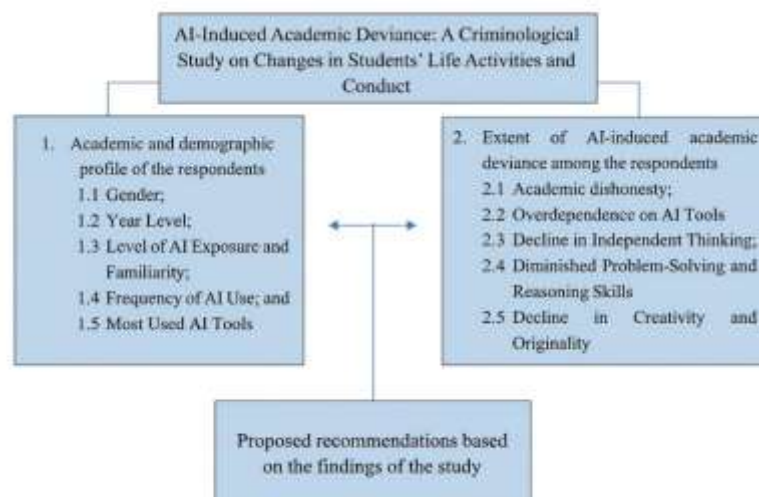


Figure 1. Schematic Diagram of the Conceptual Framework

Statement of Purpose

This study aims to examine how the use of AI influences criminology students' study habits, academic integrity, and decision-making. It aims to recommend ways to encourage responsible AI use, support academic success, and promote ethical behavior by helping students maintain intellectual independence and reduce overreliance on AI.

Specifically, the study will address the following questions:

1. What are the academic and demographic profiles of the respondents in terms of:
 - 1.1 Gender
 - 1.2 Year Level
 - 1.3 Level of AI Exposure and Familiarity
 - 1.4 Frequency of AI Use
 - 1.5 Most Used AI Tools
2. What is the extent of AI-induced academic deviance among the respondents in terms of:
 - 2.1 Academic dishonesty
 - 2.2 Overdependence on AI Tools
 - 2.3 Decline in Independent Thinking
 - 2.4 Diminished Problem-Solving and Reasoning Skills
 - 2.5 Decline in Creativity and Originality
3. What recommendations may be proposed based on the findings of the study

METHODOLOGY

Design

This study employed a quantitative descriptive-correlational design with simple random sampling to examine how AI use affected criminology students' study habits, integrity, and decision-making.

Participants of the Study

The study included 278 tech-active, consenting Criminology students from the University of the Visayas,

randomly selected from 913 using Slovin's Formula (Yamane, 1967) for fair year-level representation.

Instrument

Data were collected using a validated survey questionnaire covering demographics and AI tool usage, a 4-point Likert scale for AI reliance, and an academic deviance and integrity scale. Content validity and reliability were confirmed to ensure accuracy.

Data Gathering Procedure

The researchers secured university and ethical approval before electronically distributing questionnaires to randomly selected respondents, clearly outlining the study's purpose, voluntary participation, and confidentiality. Completed surveys were collected, verified, and coded for analysis.

Data Analysis

Data were analyzed using descriptive statistics and a 4-point Likert scale, with reliability assessed by Cronbach's Alpha and McDonald's Omega. Findings underscore technology's academic and ethical impact and the need for responsible AI use.

Ethical Considerations

The study adhered to ethical standards, with institutional approval obtained prior to data collection. Informed consent was secured, participation was voluntary with the option to withdraw, and confidentiality was ensured by coding data and omitting identifying information.

RESULTS AND DISCUSSIONS

This chapter presents the interpretation and analysis of the data gathered.



SOP 1. Respondent's Academic and Demographic Profile

1.1 Gender

Table 1 outlines the demographic profile of the respondents categorized by gender, showing the frequency and

percentage distribution of male and female students in the College of Criminal Justice Education (CCJE)

Table 1. Respondents' Gender		
Indicators	Frequency (f)	Percentage (%)
Female	100	36%
Male	178	64%
Total	278	100.0%

Table 1 displays that the majority of respondents were male (64.0%), indicating that males dominated the criminology student population. This trend was consistent with previous studies, which found that criminology and law enforcement-related programs were male-dominated.

The higher number of male students in Criminology aligns with previous research. This trend is often linked to traditional gender roles and the field's history with law enforcement jobs. Studies in the Philippines, such as those by

Villegas et al. (2022) and Asuncion and Adan-Garcia (2022), also show that more men enroll in and graduate from Criminology programs. Gender Parity Index results in these studies consistently show an advantage for males in these courses.

1.2 Years Level

Table 2 outlines the distribution of respondents by academic year level and presents the frequency and percentage of respondents in the College of Criminal Justice Education (CCJE).

Table 2. Respondents' Academic Year Level		
Year Level	Frequency (f)	Percentage (%)
1 st year	30	10.8%
2 nd year	72	25.9%
3 rd year	124	44.6%
4 th year	18.7	18.7%
Total	278	100.0%

Table 2 presents the demographic distribution of participants by academic year. Out of a total sample size of 278 respondents, the largest group comprised 3rd-year students (44.6%, n = 124), followed by 2nd-year students (25.9%, n = 72), 4th-year students (18.7%, n = 52), and 1st-year students (10.8%, n = 30).

This aligns with findings from Pascarella and Terenzini (2005), who noted that students in higher year levels demonstrate more developed academic engagement. Similarly, Kuh et al.

(2008) found that upper-year students are more actively involved in academic and technological learning practices. Moreover, Chen et al. (2020) reported that students' familiarity with digital tools increases as they progress in their academic programs.

1.3 Level of AI Exposure and Familiarity

Table 3 presents the frequency and percentage of 278 respondents from the College of Criminal Justice Education (CCJE) on their AI exposure and familiarity.

Table 3. Respondents' Level of AI Exposure & Familiarity		
Level of AI Exposure & Familiarity	Frequency	Percentage
2	15	5.4%
3	223	80.2%
4	40	14.4%
Total	278	100.0%

Table 3 revealed that 94.6% of participants (Levels 3 and 4) reported moderate to high AI exposure and familiarity, with 80.2% (n = 223) at Level 3 and 14.4% (n = 40) at Level 4. Only 5.4% (n = 15) were at Level 2, indicating lower exposure. These findings suggested that AI tools were integrated into most participants' daily routines, though few considered themselves advanced users. This highlighted an opportunity to provide training to help more individuals advance from moderate to higher proficiency levels.

This is supported by Holmes et al. (2019), who explained that AI integration in education is still emerging,

leading to moderate familiarity among students. Zawacki-Richter et al. (2019) also found that most students are aware of AI but lack advanced expertise. Furthermore, Chan (2023) emphasized that although AI tools are accessible, learners' deep understanding remains limited.

1.4 Frequency of AI Use

Table 4 presents the frequency and percentage of respondents who use artificial intelligence applications in their daily or professional lives.



Table 4. Respondents' Frequency of AI Use		
Frequency of AI Use	Frequency	Percentage
Never	5	1.8%
Rarely	95	34.2%
Sometimes	154	55.4%
Always	24	8.6%
Total	278	100.0%

Table 4 showed that over half of the participants (55.4%, n = 154) reported using AI “Sometimes,” while 34.2% (n = 95) used it “Rarely.” Combined, these groups accounted for 89.6% of respondents, indicating that most used AI only occasionally or as needed. Only 8.6% (n = 24) were frequent users, and just 1.8% (n = 5) had never used AI. With no missing data, the results showed nearly universal, but mostly occasional, AI use. This suggested opportunities for organizations to encourage more consistent and effective integration of AI into daily routines.

These findings are supported by Kasneci et al. (2023), who found that students occasionally use AI tools for learning

support. Similarly, Dwivedi et al. (2023) highlighted that AI is commonly used but not consistently relied upon. Cotton et al. (2023) also noted that students treat AI as a supplementary academic tool rather than a primary resource.

1.5 Most used AI Tools

Table 5 shows the frequency and percentage of use of the main AI platforms by 278 participants. It lists how many people preferred ChatGPT, DOLA (cici), Google Gemini AI, Perplexity, and Quillbot, and gives the frequency and percentage for each.

Table 5. Respondents' Most used AI Tools		
Most used AI Tools	Frequency	Percentage
ChatGPT	103	37.1%
DOLA (cici)	55	19.8%
Google Gemini AI	32	11.5%
Perplexity	48	17.3%
Quillbot	40	14.4%
Total	278	100.0%

Table 5 shows that ChatGPT was the most widely used AI tool, with 37.1% of respondents (n = 103) having chosen it. DOLA (Cici) came next at 19.8% (n = 55), followed by Perplexity at 17.3% (n = 48), QuillBot at 14.4% (n = 40), and Google Gemini AI at 11.5% (n = 32). The data suggested that while ChatGPT was the top choice overall, many participants also used specialized tools such as Perplexity and QuillBot (31.7% combined) for academic and professional work.

This supports findings by Dwivedi et al. (2023), who identified conversational AI as the most widely used academic tool. Kasneci et al. (2023) also emphasized the popularity of AI

chat systems due to ease of use. Additionally, adoption studies on OpenAI (2023) show that students prefer AI tools that provide instant responses and assistance.

SOP 2. Extent of AI-induced Academic Deviance of Respondents

2.1 Academic Dishonesty

Table 6 presents respondents’ views on AI tools and academic integrity, summarizing four indicator statements with weighted mean scores and qualitative ratings using a 4-point Likert scale.

Table 6. Academic dishonesty		
INDICATORS	MEAN	INTERPRETATION
1. How does AI use relate to academic dishonesty?	2.81	Agree
2. Use AI tools to complete assignments without proper understanding.	2.51	Agree
3. I submit AI-generated work as my own.	2.59	Agree
4. AI makes it easier to engage in dishonest academic practices.	2.75	Agree

Legend: 3.25 – 4.00 – Strong Agree; 3.24 – 2.50 – Agree; 2.49 – 1.75 – Disagree; 1.74 – 1.00 – Strong Disagree

Table 6 shows consistent agreement across all indicators, with mean scores of 2.51–2.81 falling under the “Agree” category. Respondents recognize the link between AI use and academic dishonesty, believe AI lowers barriers to misconduct, and admit to submitting AI-generated work or using

AI to bypass learning. The respondents acknowledge and participate in AI-facilitated academic dishonesty.

This supports Cotton et al. (2023), who found that AI increases risks of plagiarism. Eaton (2021) emphasized the growing concern of academic integrity violations. Additionally,



Lancaster (2020) reported that contract cheating and AI-assisted dishonesty are rising issues.

2.2 Overdependence on AI Tools

Table 7 summarizes respondents' self-reported reliance on AI in academics, evaluating four indicators by mean scores with qualitative ratings on a 4-point Likert scale.

Table 7. Overdependence on AI Tools		
INDICATORS	MEAN	INTERPRETATION
1. To what extent do students depend on AI tools?	2.85	Agree
2. I rely on AI tools to complete most of my schoolwork.	2.65	Agree
3. I feel I cannot complete tasks without using AI.	2.58	Agree
4. I use AI even for simple academic tasks.	2.63	Agree

Legend: 3.25 – 4.00 – Strong Agree; 3.24 – 2.50 – Agree; 2.49 – 1.75 – Disagree; 1.74 – 1.00 – Strong Disagree

Table 7 shows consistent agreement on students' overdependence on AI, with mean scores of 2.58–2.85, falling in the "Agree" category. Respondents view AI reliance as the norm, use it for both major and routine assignments, and express uncertainty about working without it, demonstrating a clear trend of overreliance and reduced independent confidence.

This is consistent with Dwivedi et al. (2023), who reported increasing reliance on AI for academic efficiency.

Kasneci et al. (2023) also highlighted growing dependence on AI tools among students. Additionally, Chan (2023) emphasized that frequent use of AI can lead to dependence in academic work.

2.3 Decline in Independent Thinking

Table 8 summarizes respondents' perceptions of AI's impact on cognitive autonomy, presenting mean scores and qualitative ratings for four indicators on a 4-point Likert scale.

Table 8. Decline in Independent Thinking		
INDICATORS	MEAN	INTERPRETATION
1. Does AI use affect students' independent thinking?	2.86	Agree
2. I rely on AI instead of developing my own ideas first.	2.47	Disagree
3. I try to think of my own answer before asking AI.	2.94	Agree
4. Frequent AI use reduces my ability to think independently.	2.74	Agree

Legend: 3.25 – 4.00 – Strong Agree; 3.24 – 2.50 – Agree; 2.49 – 1.75 – Disagree; 1.74 – 1.00 – Strong Disagree

Table 8 shows that most students try to think independently before using AI, with a mean score of 2.94. The lowest mean score of 2.47 indicates that AI is not their first choice for generating ideas. However, students acknowledge that AI use affects cognitive autonomy, as reflected by a mean score of 2.86. They also recognize that frequent use reduces independent thinking, with a mean score of 2.74. Overall, students are aware that relying on AI can undermine cognitive autonomy over time.

This aligns with Carr (2010), who argued that technology weakens deep thinking. Sparrow et al. (2011) found

that reliance on digital tools reduces memory and cognition. Furthermore, Firth et al. (2019) reported cognitive impacts of digital technology use.

2.4 Diminished Problem-solving and Reasoning Skills

Table 9 summarizes how AI tools influence students' analytical skills, presenting mean scores and qualitative ratings for four indicators on a 4-point Likert scale.

Table 9. Diminished Problem-Solving and Reasoning Skills		
INDICATORS	MEAN	INTERPRETATION
1. Does AI use affect students' problem-solving skills?	2.83	Agree
2. I use AI to solve difficult academic problems.	2.65	Agree
3. I try to solve problems on my own before using AI	2.96	Agree
4. Too much reliance on AI weakens problem-solving skills.	2.90	Agree

Legend: 3.25 – 4.00 – Strong Agree; 3.24 – 2.50 – Agree; 2.49 – 1.75 – Disagree; 1.74 – 1.00 – Strong Disagree

Table 9 shows that students generally agree AI influences their problem-solving and reasoning skills, with mean scores from 2.65 to 2.96. They make an effort to think analytically before using AI, recognize the risks of over-reliance, and acknowledge that AI affects learning habits. While students value their own reasoning, they frequently use AI for challenging tasks and are aware of its potential drawbacks.

This is supported by Firth et al. (2019), who found that technology affects reasoning abilities. Sparrow et al. (2011) also showed reduced cognitive effort due to reliance on digital tools. Carr (2010) emphasized the decline in analytical thinking due to the use of technology.



2.5 Decline in Creativity and Originality: Table 10 summarizes how AI tools impact students' creativity and original thinking,

presenting mean scores and qualitative ratings for four indicators on a 4-point Likert scale.

Table 10. Decline in Creativity and Originality		
INDICATORS	MEAN	INTERPRETATION
5. Does AI use affect creativity and originality?	2.87	Agree
6. I use AI to generate ideas or written content.	2.66	Agree
7. Frequent AI use reduces creativity among students.	2.90	Agree
8. I still add my own ideas when using AI.	2.93	Agree

Legend: 3.25 – 4.00 – Strong Agree; 3.24 – 2.50 – Agree; 2.49 – 1.75 – Disagree; 1.74 – 1.00 – Strong Disagree

Table 10 shows students generally agree that AI affects their creativity, with mean scores from 2.66 to 2.93. Students still add their own ideas when using AI, but many are concerned that frequent use may reduce creativity. Most agree AI influences originality and use it for brainstorming, while remaining aware of the risks of overreliance.

This is supported by Amabile (1996), who emphasized the importance of independent thinking for creativity. Runco (2014) highlighted that creativity requires cognitive effort.

Additionally, Dwivedi et al. (2023) noted that AI-generated content may reduce originality.

Table 11. Reliability Statistics

Table 11 presents the reliability statistics for the instrument measuring AI-induced academic deviance among criminology students, using Cronbach's Alpha and McDonald's Omega to assess internal consistency.

Frequentist Scale Reliability Statistics				
			95% CI	
Coefficient	Estimate	Std. Error	Lower	Upper
McDonald's ω	0.910	0.008	0.894	0.925
Cronbach's α	0.912	0.014	0.884	0.939
Note. Of the observations, 276 were complete cases.				

Table 11 presents the psychometric evaluation of the measurement instrument's internal consistency based on 276 complete cases. The table details two primary indicators of scale reliability, McDonald's omega and Cronbach's alpha, along with their estimated point values, standard errors, and 95% confidence intervals. The instrument demonstrated high reliability.

CONCLUSION

This study showed that criminology students used artificial intelligence in a balanced way in their academic work. Although AI tools were easy to access and part of daily routines, most students used them to support their work rather than as main sources. Students tended to be neutral about AI's effects on academic integrity, independence, problem-solving, and creativity, and many strived to remain self-reliant and use AI responsibly. Some students were still concerned that relying too much on AI could hurt their critical thinking and creativity, but most still valued originality and working independently. These results suggested that ongoing digital literacy education, ethical awareness, and clear guidelines were important for helping students use AI effectively and responsibly as it became a larger part of higher education.

RECOMMENDATIONS

Based on the findings, this study recommends promoting responsible and effective use of AI among criminology students:

1. Students should use AI tools in moderation as aids to learning, maintaining critical thinking, reasoning, and creativity.
2. Educators should guide students on ethical AI use by integrating discussions of AI ethics, academic integrity, and responsible technology into their teaching, and by designing activities that foster originality and independent problem-solving.
3. Academic institutions should establish clear policies defining ethical AI use, outline consequences for misuse, and provide guidance on citation and attribution for AI-generated content.
4. Curriculum developers should include AI literacy and digital ethics in criminology programs, and institutions should offer regular seminars and workshops on academic integrity and responsible AI use.
5. Future researchers should explore additional variables and use larger, more diverse samples to better understand the long-term impact of AI on student learning and development.

REFERENCES

1. Asuncion, R. L., & Adan-Garcia, E. C. (2022). *Gender parity and sex-disaggregated analysis of the BS Criminology program*. Isabela State University. <https://sdg.isu.edu.ph/2022-research-sdg-5-gender-equality/>
2. Chan, C. K. Y. (2023). *A comprehensive AI policy framework for university teaching and learning*. *International Journal of Educational Technology in Higher Education*, 20(1), Article 38. <https://doi.org/10.1186/s41239-023-00408-3>



3. Cotton, D. R. E., Cotton, P. A., & Shipway, J. R. (2023). Chatting and cheating: Ensuring academic integrity in the era of ChatGPT. *Innovations in Education and Teaching International*, 61(2), 228–239.
<https://doi.org/10.1080/14703297.2023.2190148>
4. Dwivedi, Y. K., Kshetri, N., Hughes, L., Slade, E. L., Jeyaraj, A., Kar, A. K., Baabdullah, A. M., Koochang, A., Raghavan, V., Ahuja, M., Albanna, H., Albort-Morant, G., Al-Busaidi, A. S., Bown, B. R., Choi, T. M., Cremer, F. M., Dawes, S., Dey, B. L., Foroudi, P., ... Wright, R. (2023). "So what if ChatGPT wrote it?" Multidisciplinary perspectives on opportunities, challenges and implications of generative conversational AI for research, practice and policy. *International Journal of Information Management*, 71, Article 102642.
<https://doi.org/10.1016/j.ijinfomgt.2023.102642>
5. Eaton, S. E. (2021). Plagiarism in higher education: Tackling academic integrity: Tackling academic integrity. ABC-CLIO.
6. Firth, J., Torous, J., Stubbs, B., Firth, J. A., Steiner, G. Z., Smith, L., Alvarez-Jimenez, M., Gleeson, J., Freudenreich, O., & Sarris, J. (2019). The "online brain": How the Internet may be changing our cognition. *World Psychiatry*, 18(2), 119–129.
<https://doi.org/10.1002/wps.20617>
7. Holmes, W., Bialik, M., & Fadel, C. (2019). Artificial intelligence in education: Promises and implications for teaching and learning. Center for Curriculum Redesign.
8. Kasneci, E., Sessler, K., Küchemann, S., Bannert, M., Dementieva, D., Fischer, F., Gasser, U., Groh, G., Günnemann, S., Hüllermeier, E., Krusche, S., Kutyniok, G., Michaeli, T., Nerdel, C., Pfeiffer, F., Poquet, O., Sailer, M., Schmidt, A., Seidel, T., ... Kasneci, G. (2023). ChatGPT for good? On opportunities and challenges of large language models for education. *Learning and Individual Differences*, 103, 102274. <https://doi.org/10.1016/j.lindif.2023.102274>
9. Lancaster, T. (2020). Commercial contract cheating provision: Beyond the essay mill. *International Journal for Educational Integrity*, 16(1), 1–12. <https://doi.org/10.1007/s40979-020-00053-x>
10. Villegas, J., Biol, R., Simbahon, J., & Dacullo, J. (2022). Gender, numbers and beyond: The case of criminology program in DOrSU, City of Mati, Philippines. *Davao Research Journal*, 13, 6–19.
<https://doi.org/10.59120/drj.v13i1.1>