Assessing the Awareness, Utilization, Perceived Benefits, and Challenges of Generative Artificial Intelligence (AI) Tools in Academic Writing among Graduate Students

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ABSTRACT. The rapid evolution of Generative AI is revolutionizing academic writing. This study investigates its impact on 150 graduate students at a Philippine Catholic university, assessing their awareness, utilization, and perceptions. Findings reveal high awareness and widespread use, particularly of ChatGPT for proofreading and research, driven by perceived efficiency. However, significant concerns persist regarding the potential erosion of critical thinking, algorithmic opacity, and ethical issues such as plagiarism. With a positive correlation established between awareness and utilization, the research advocates for a balanced integration strategy supported by clear institutional policies and comprehensive training. This approach empowers students to leverage AI benefits while maintaining critical oversight and strict adherence to academic integrity. Ultimately, the study emphasizes that AI should function as a mechanism for enhancing academic exploration rather than substituting for fundamental human skills and ethical judgment.

1.0. Introduction

Generative AI, a transformative force in content creation, empowers computers to generate novel text formats with remarkable fidelity (Brown et al., 2020). The rapid rise of large language models, such as GPT-3, exemplifies this revolution (OpenAI, 2023), offering possibilities for enhanced efficiency and personalized content across various industries. However, critical ethical considerations regarding human creativity, authorship, and potential biases remain (Brown et al., 2020).

Generative artificial intelligence (AI) offers substantial potential for revolutionizing the writing landscape in educational settings. These systems can enhance the learning experience by providing tailored feedback, encouraging creative expression, and cultivating critical thinking abilities (Zhang et al., 2023; Shao et al., 2023; Liu, 2022). The ongoing development of these tools suggests that their incorporation could fundamentally change the writing process, resulting in more efficient and personalized instruction. However, academic writing is characterized by strict standards of originality and rigorous analysis (Wingate, 2018; Kellogg & Whiteford, 2020), presenting a unique context for the application of Generative AI. While it can streamline tasks like citation formatting, concerns persist in potential plagiarism, the undermining of critical thinking, and the propagation of inaccuracies (Androutsopoulos, 2023; Heaven, 2023). Successfully leveraging Generative AI within this environment necessitates a nuanced comprehension of both its potential risks and benefits.

Graduate students face high-stakes writing demands. They offer a compelling population for investigating Generative AI utilization in academic writing (Nelson et al., 2022). This study aims to delve into the level and extent of utilization of Generative AI tools among graduate students at a Catholic University in the Philippines. It examines the relationship between awareness and utilization, alongside the perceived benefits and challenges associated with it. Exploring their experiences in this specific context can reveal

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cultural and educational factors that influence their attitudes and adoption of these tools.

The aim of this research was to address a gap in existing literature by exploring graduate students' awareness, utilization, perceived benefits, and challenges associated with Generative AI technologies. The results of the investigation are intended to inform the development of institutional policies, ethical frameworks, and pedagogical approaches that advocate for the responsible deployment of AI within graduate programs (Androutsopoulos, 2023; Zhang et al., 2023; Lancaster, 2023; Baker et al., 2023).

Hence, this study investigated the use of Generative AI tools for academic writing among graduate students at a Philippine Catholic university, analyzing data both collectively and across demographics such as sex, age, program level, and field of study. Specifically, it assessed the students' levels of awareness and extent of utilization, alongside the perceived benefits and challenges associated with these technologies. Furthermore, the research examined significant correlations between awareness and tool usage, as well as the relationship between utilization rates and the perceived advantages and obstacles. By exploring these variables, the study aimed to determine how familiarity and usage patterns influence the academic writing process and the associated perceptions of AI integration in higher education.

2.0 Literature Review

Generative AI in Graduate Academic Writing. In the context of graduate academic writing, students are recognizing the potential advantages of Generative AI tools, particularly for increasing drafting efficiency and improving language precision (Dergaa et al., 2023). While this technological transition presents an opportunity to streamline scholarly communication and the writing process, its implementation is also complicated by major pedagogical and ethical concerns. These issues include threats to academic integrity, the risk of plagiarism, and complex questions surrounding authorship (Cotton et al., 2023; Eke, 2023; Madhu et al., 2023; Dupps, 2023).

To successfully manage this complex environment, academic institutions must execute a coordinated and thorough strategy. A comprehensive strategy requires the establishment of explicit institutional policies alongside the implementation of compulsory training for both students and faculty regarding the ethical use of AI. Furthermore, institutions should adopt reliable detection mechanisms to safeguard fairness and, most importantly, prioritize pedagogical approaches that cultivate critical thinking and emphasize the essential worth of human expertise and original intellectual contribution. This framework ensures technology functions as a scholarly aid, rather than replacing authentic scholarly work (Cotton et al., 2023; Eke, 2023; Madhu et al., 2023; Dupps, 2023).

AI in Academic Writing: Balancing Efficiency with Ethical Integrity. Integrating Artificial Intelligence (AI) tools into academic writing presents a scenario marked by both opportunity and challenge. While AI offers the promise of boosting both quality and efficiency, these advantages are balanced by significant anxieties regarding its ethical deployment. AI can streamline tasks like writing and research; however, it risks fostering excessive student reliance, potentially hindering the development of core writing proficiencies and leading to issues such as academic misconduct or unintended plagiarism (William, 2024; Plata et al., 2023; Song, 2024). Therefore, institutions must take the initiative to establish clear and robust policies to govern ethical use, ensuring AI is leveraged effectively while minimizing these inherent risks.

Successfully integrating and managing the AI environment necessitates a multifaceted approach to uphold both fairness and scholarly rigor. This effort must include devising strategies to counteract inherent biases present in AI models, overcoming the difficulty of accurately detecting AI-generated content, and guaranteeing equitable access and application of the technology. The advent of AI also necessitates a fundamental reevaluation of authorship and copyright in collaborative human-AI environments. There is a critical need to adapt existing teaching methods to incorporate digital literacy and responsible AI utilization (Delgado et al., 2024; Farrelly & Baker, 2023; Bozkurt, 2024; Yeo, 2023).

GenAI in Graduate Education: Addressing the Research and Knowledge Gap. Research on the utilization and impact of Generative AI (GenAI) within graduate education, especially concerning its role in academic writing, remains notably limited (Androutsopoulos, 2023; Lancaster, 2023). As a result, this scarcity of evidence creates a significant knowledge gap for institutions and educators trying to formulate effective policies and pedagogical approaches. Without robust empirical data, the full scope of both the benefits and risks associated with GenAI's use by graduate students is difficult to ascertain, complicating decisions on everything from assignment design to the enforcement of academic integrity standards.

This restricted understanding is exacerbated by various factors, including potential distinctions in how AI tools are perceived and applied across different academic disciplines, alongside widespread misconceptions among both faculty and students concerning the technology's true limitations and

capabilities. As a result, there is an evident and pressing requirement for additional research regarding the function of Generative AI (GenAI) in graduate-level studies. This research must inform targeted educational efforts aimed at promoting AI literacy, dispelling myths, and establishing best practices that recognize both the powerful utility of these tools and the necessary ethical constraints.

Balancing Benefits and Ethical Concerns. Although many recommend a prudent approach to Generative AI (GenAI), graduate students generally recognize its significant advantages for their academic writing. They are drawn to benefits such as greater efficiency in material organization and drafting, higher quality in written output, and better research capabilities achieved through sophisticated idea generation and summarization features (Androutsopoulos, 2023; Shao et al., 2023; Nelson et al., 2022; Heaven, 2023; Lancaster, 2023; Zhang et al., 2023). This positive outlook suggests GenAI is viewed as an effective instrument for augmenting the scholarly process and aiding students in handling the heavy demands of graduate-level coursework.

Despite the perceived advantages, these positive views are moderated by ongoing anxieties about GenAI's capacity to negatively affect core academic competencies, specifically by eroding critical thinking and weakening foundational research skills (Heaven, 2023; Shao et al., 2023; Baker et al., 2023). Consequently, a balanced strategy is necessary: one that maximizes AI's advantages while strictly maintaining academic rigor and ethical benchmarks. To achieve this equilibrium, institutions must actively confront issues of access disparity, establish clear and current guidelines for ethical usage, and fundamentally re-evaluate assessment techniques. Furthermore, continuous discussion and research involving both students and faculty are paramount to responsibly defining AI's evolving role in future academic writing.

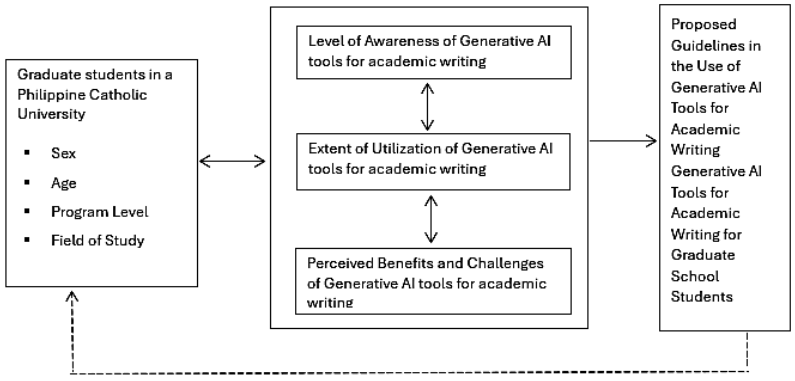
3.0. Theoretical Framework

The core theoretical foundation of this study is built upon the hypothesis that Generative AI (GenAI) utilization among graduate students is positively correlated with their awareness of the technology. This suggests that expanding knowledge is a necessary precondition for broader adoption (Rogers, 2003; Davis, 1989). This hypothesis is directly informed by Rogers' Diffusion of Innovation (DOI) Theory (Rogers, 2003), which posits that any new technology is successfully adopted through a sequence of distinct phases: knowledge, persuasion, decision, implementation, and confirmation. Therefore, in this context, increasing students' *knowledge* about GenAI's existence and functionality is the initial and crucial step in moving them toward adopting it in their academic practices.

The study's theoretical base is further supported by the Technology Acceptance Model (TAM), which proposes that the main determinants influencing technology adoption are a user's perceived usefulness and their belief in the perceived ease of use (Davis, 1989). In the context of GenAI, an increased awareness of its capabilities and potential academic benefits directly influences a graduate student's perception of its *usefulness* for their writing tasks. Similarly, clear communication about GenAI's user-friendliness enhances their perception of its *ease of use*. Thus, by effectively raising awareness, the study anticipates that students will develop a stronger sense of GenAI's value and accessibility, which will consequently lead to a greater decision to adopt and integrate these tools into their academic writing processes.

The conceptual framework for this study maps the relationships between key variables that will ultimately inform the proposed guidelines. Specifically, this research focuses on assessing the level of awareness and the extent of utilization of Generative AI tools for academic writing by graduate students at a specific Philippine Catholic University. These two central factors, alongside the students' demographic characteristics (age, sex, program level, and field of study), are analyzed in relation to the perceived challenges and benefits of using AI. The final objective is to correlate awareness and utilization with these perceived factors, thereby generating an evidence-based foundation for creating the Proposed Guidelines in the Use of Generative AI Tools for Academic Writing for Graduate School Students.

Figure 1. Conceptual Framework



4.0. Methodology

This study utilized a quantitative descriptive-correlational research design to investigate graduate students' engagement with Generative AI tools in academic writing.

The total population of 150 thesis and dissertation writers enrolled in the graduate school for the academic year 2023-2024 served as the respondents. This total enumeration sampling ensured the study captured insights from graduate students actively engaged in complex academic writing, who are consequently likely to have greater experience with writing support tools, including Generative AI.

Table 1

Profile of the Graduate Students

Variables	f	%
Sex		
Male	47	31.3
Female	103	68.7
Age		
Baby Boomers (60-69)	34	22.7
Gen X (44-59)	80	53.3
Millennials (28-43)	33	22.0
Gen Z (12-27)	3	2.0
Graduate Program Level		
Master's	116	77.3
Doctor	34	22.7
Field of Study		
Business	44	29.3
Applied Science	17	11.3
Humanities and Social Science	89	59.3
Total	150	100.0

Data were primarily collected through a researcher-developed survey questionnaire, which was designed to assess graduate students' awareness, utilization, perceived benefits, and challenges associated with Generative AI tools in academic writing. To establish content validity, Lawshe's (1975) Content Validity Ratio (CVR) was employed. The computed CVR led to a Content Validity Index (CVI) of 0.87, demonstrating substantial expert consensus that the survey items were relevant and necessary for measuring the study's variables. Furthermore, the instrument's reliability was confirmed using Cronbach's alpha. The calculated reliability index of 0.92 indicates excellent internal consistency, thus verifying the scale's dependability for assessing the intended constructs.

Following the receipt of required institutional clearances, all participants provided informed consent. The questionnaire was subsequently deployed via a protected online platform. The gathered data was organized, and the following statistical techniques were applied: Descriptive statistics (such as standard deviations, means, and frequencies) were used to summarize the graduate students' reported level of awareness, extent of utilization, perceived benefits, and challenges. To investigate the associations between the core variables (e.g., the relationship between awareness and utilization), Spearman/rank biserial correlations were computed, based on the specific normality characteristics of the variables.

The ethical framework of this research was rigorously maintained by addressing four key areas: informed consent, privacy and confidentiality, risk and benefits, and social value. Informed consent was obtained by furnishing each participant with a detailed consent form that specified the aims of the study, the research procedures, and the participants' right to withdraw voluntarily at any point. The survey was administered only upon explicit agreement. Privacy and confidentiality were ensured by collecting and storing all data anonymously, analyzing it in aggregate, and preventing individual tracing, thereby limiting access to raw data. The risks (minimal time commitment) were significantly outweighed by the benefits of generating empirical data to develop Proposed Guidelines for the ethical and effective use of Generative AI.

Ultimately, the study established its social value by providing insights that enrich the ongoing discourse surrounding technological integration and academic integrity, specifically by yielding practical contributions to policy via the final proposed guidelines. The ethical framework of this research was rigorously maintained by addressing four key areas: informed consent, privacy and confidentiality, risk and benefits, and social value. Informed consent was secured by providing every respondent with a comprehensive consent form that outlined the study's purpose, procedures, and the right to voluntary withdrawal. The survey was administered only upon explicit agreement. Privacy and confidentiality were ensured by collecting and storing all data anonymously, analyzing it in aggregate, and preventing individual tracing, thereby limiting access to raw data. The risks (minimal time commitment) were significantly outweighed by the benefits of generating empirical data to develop Proposed Guidelines for the ethical and effective use of Generative AI. Finally, the study demonstrated social value by contributing insights to the discourse on academic integrity and technological integration, offering practical policy contributions through the final proposed guidelines.

5.0. Results and Discussion

Awareness of generative AI tools in academic writing

Awareness of Generative AI Tools for Academic Writing. The data in Table 2 shows that majority (78.7%) of thesis and dissertation writers are aware of Generative AI tools for academic writing, suggesting a potential transformation in research output production (Smith & Johnson, 2023). This widespread may lead to increased AI Utilization, presenting both benefits and challenges. To navigate this, universities need clear AI Utilization policies, responsible integration training, and a focus on critical evaluation of AI-generated content (Wang et al., 2022; Anderson & Anderson, 2024; Brown, 2023), along with ongoing discussions on originality, plagiarism, and attribution in AI-assisted writing.

Table 2

Awareness of Generative AI Tools for Academic Writing

Awareness	f	%
Aware	118	78.7
Not aware	2	1.3
Somewhat aware	30	20.0

Level of Awareness of Generative AI Tools for Academic Writing. While thesis and dissertation writers generally demonstrate a moderate awareness of Generative AI writing tools (M=3.35), variations exist across demographics, with higher scores observed among males, Generation X, doctoral students, and those in applied science fields (M=3.45, 3.44, 3.47, and 3.65, respectively) as presented in Table 3. This highlights the need for tailored training initiatives within academic institutions, acknowledging that AI tool understanding varies based on various factors and necessitates a nuanced approach for optimal adoption and ethical Utilization (Smith & Johnson, 2023; Wang et al., 2022).

Table 3

Level of Awareness on Generative AI tools for Academic Writing

Variables	M	SD	Interpretation
Sex			
Male	3.45	0.90	High
Female	3.30	0.92	Moderate
Age			
Baby Boomers (60-69)	3.29	0.91	Moderate
Gen X (44-59)	3.44	0.94	High
Millennials (28-43)	3.24	0.87	Moderate
Gen Z (12-27)	2.67	0.58	Moderate
Graduate Program Level			
Master's	3.31	0.90	Moderate
Doctor	3.47	0.96	High
Field of Study			
Business	3.36	0.89	Moderate
Applied Science	3.65	0.79	High
Humanities and Social Science	3.28	0.94	Moderate
As a whole	3.35	0.91	Moderate

Utilization of generative AI tools in academic writing

Utilization of Generative AI Tools for Academic Writing. In Table 4, the substantial majority (79%) of thesis and dissertation writers utilizing Generative AI tools in their academic writing processes highlights a significant shift in research output creation, underscoring the urgent need for proactive guidance from academic institutions (Anderson & Anderson, 2024; Wang et al., 2022). Universities should focus on developing clear AI policies, offering tailored training, and ensuring equitable access to prevent widening knowledge gaps.

Table 4

Utilization of Generative AI Tools for Academic Writing

Utilization	f	%
Yes	119	79.3
No	31	20.7

Table 5

Extent of Utilization of Generative AI tools for Academic Writing

Variables	M	SD	Interpretation
Sex			
Male	2.94	1.22	Great Extent
Female	2.77	1.14	Great Extent
Age			
Baby Boomers (60-69)	3.03	1.00	Great Extent
Gen X (44-59)	2.84	1.08	Great Extent
Millennials (28-43)	2.64	1.48	Great Extent
Gen Z (12-27)	2.00	1.00	Poor Extent
Graduate Program Level			
Master's	2.80	1.14	Great Extent
Doctor	2.88	1.25	Great Extent
Field of Study			
Business	2.64	1.24	Great Extent
Applied Science	3.12	1.05	Great Extent
Humanities and Social Science	2.85	1.14	Great Extent
As a whole	2.82	1.16	Great Extent

Extent of Utilization of Generative AI Tools for Academic Writing. Table 5 reveals that while thesis and dissertation writers generally utilize generative AI tools to a great extent (occasional) for specific tasks (M=2.82), Generation Z writers exhibit a poor extent (less frequent) of utilization (M=2.00), suggesting generational variations in adoption (Smith & Johnson, 2023). This highlights the need for universities to investigate reasons behind lower Gen Z utilization and tailor training and support initiatives to address their specific needs and hesitations.

Academic Writing Task Utilizing Generative AI Tools. As shown in Table 6, thesis and dissertation writers primarily utilized Generative AI tools for proofreading and editing (38%), as well as for

Table 6

Academic Writing Task Utilizing Generative AI Tools

Tasks	f	%	Rank
Proofreading and editing	57	38.0	1
Brainstorming ideas	54	36.0	3.5
Researching and collecting information	54	36.0	3.5
Generating drafts	42	28.0	4
Citation and reference formatting	40	26.7	5
Outlining	36	24.0	6

brainstorming ideas and researching information (36% each), demonstrating the value they see in these tools for both editorial refinement and the creative aspects of writing. Other common utilization cases include generating drafts, creating citations and references, and outlining (28%, 26.7%, and 24%, respectively). These findings suggest that academic institutions should tailor training to emphasize both the benefits and limitations of AI for these diverse tasks, promoting critical evaluation of AI-generated output (Brown, 2023).

Perceived benefits of utilization of generative AI tools in academic writing

The data in Table 7 show that thesis and dissertation writers generally perceive the major benefits of utilizing generative AI tools for various academic writing needs (M = 3.35), including core writing tasks, research support, improved accessibility, and learning enhancement (M = 3.35), as well as a reduction in stress and promotion of collaboration (M = 3.26, SD = 0.64). This positive outlook suggests that AI has the potential to streamline tasks and enhance the writing process. To fully harness these benefits, universities should establish a proactive framework for AI integration, including comprehensive training programs emphasizing both technical utilization and critical evaluation skills (Brown, 2023; Wang et al., 2022). Additionally, clear guidelines outlining responsible AI Utilization, addressing attribution, biases, and scholarly control, are crucial for fostering ethical adoption and upholding academic integrity (Anderson & Anderson, 2024; Uzun, 2023).

Perceived challenges in the utilization of generative AI tools in academic writing

As shown in Table 8, despite the potential benefits Generative AI tools offer to students writing theses and dissertations, anxieties remain concerning critical thinking abilities, the transparency and control of AI models, and wide-ranging ethical implications (Uzun, 2023; Yang et al., 2023; Wendell & Douglas, 2021; Tian et al., 2023). Other difficulties include the risk of technology creating a knowledge disparity, the challenge of developing current guidelines due to the rapid evolution of AI, and the necessity of redefining student competencies and assessment methods given the availability of AI assistance. Universities are obligated to proactively mitigate these issues by encouraging open discussion, implementing explicit guidelines, and offering training focused on responsible AI use and critical evaluation, thereby ensuring AI supports academic inquiry without

Table 7

Perceived Benefits of Utilizing Generative AI Tools in Academic Writing

Variables	Core Writing Tasks			Research Support			Accessibility and Learning			Reduced Stress & Collaboration			Whole		
	M	SD	Int	M	SD	Int	M	SD	Int	M	SD	Int	M	SD	Int
Sex															
Male	3.43	0.64	MB	3.33	0.55	MB	3.26	0.49	MB	3.26	0.66	MB	3.32	0.53	MB
Female	3.52	0.50	MB	3.37	0.61	MB	3.28	0.59	MB	3.26	0.63	MB	3.36	0.51	MB
Age															
Baby Boomers	3.47	0.54	MB	3.12	0.56	PB	3.18	0.42	PB	3.09	0.64	PB	3.21	0.43	PB
Gen X	3.48	0.59	MB	3.39	0.60	MB	3.27	0.59	MB	3.26	0.65	MB	3.35	0.55	MB
Millennials	3.58	0.47	MB	3.53	0.56	MB	3.38	0.64	MB	3.43	0.62	MB	3.48	0.50	MB
Gen Z	3.33	0.33	MB	3.56	0.51	MB	3.22	0.19	PB	3.22	0.38	PB	3.33	0.30	MB
Program Level															
Master's	3.48	0.57	MB	3.30	0.61	MB	3.24	0.58	PB	3.25	0.64	PB	3.32	0.53	MB
Doctor	3.53	0.48	MB	3.55	0.46	MB	3.36	0.48	MB	3.28	0.65	MB	3.43	0.45	MB
Field of Study															
Business	3.48	0.54	MB	3.32	0.59	MB	3.25	0.63	PB	3.22	0.69	PB	3.32	0.55	MB
Applied Science	3.53	0.57	MB	3.47	0.57	MB	3.31	0.64	MB	3.51	0.54	MB	3.46	0.53	MB
Hum & Soc Sci	3.49	0.55	MB	3.36	0.60	MB	3.27	0.52	MB	3.23	0.63	PB	3.34	0.49	MB
As a whole	3.49	0.55	MB	3.36	0.59	MB	3.27	0.56	MB	3.26	0.64	MB	3.35	0.51	MB

Note: MB=Major Benefit; PB=Potential Benefit

Table 8

Perceived Challenges in the Utilization of Generative AI Tools in Academic Writing

Variables	Critical Thinking Skills			Control & Transparency			Ethical Considerations			Accessibility & Inequality			Whole		
	M	SD	Int	M	SD	Int	M	SD	Int	M	SD	Int	M	SD	Int
Sex															
Male	3.13	0.72	MC	2.90	0.79	MC	3.09	0.82	MC	2.97	0.83	MC	3.02	0.73	MC
Female	3.05	0.67	MC	2.93	0.78	MC	3.21	0.77	MC	3.12	0.71	MC	3.08	0.65	MC
Age															
Baby Boomers	3.06	0.78	MC	2.85	0.86	MC	3.11	0.85	MC	3.10	0.77	MC	3.03	0.74	MC
Gen X	3.08	0.64	MC	2.90	0.73	MC	3.24	0.73	MC	3.01	0.73	MC	3.06	0.62	MC
Millennials	3.05	0.75	MC	3.02	0.85	MC	3.09	0.89	MC	3.14	0.79	MC	3.08	0.76	MC
Gen Z	3.11	0.38	MC	3.33	0.58	CC	3.00	0.67	MC	3.78	0.19	CC	3.31	0.19	CC
Program Level															
Master's	3.08	0.68	MC	2.91	0.77	MC	3.16	0.75	MC	3.06	0.74	MC	3.05	0.65	MC
Doctor	3.04	0.72	MC	2.97	0.85	MC	3.24	0.91	MC	3.12	0.80	MC	3.09	0.76	MC
Field of Study															
Business	3.08	0.65	MC	3.07	0.72	MC	3.23	0.77	MC	3.20	0.69	MC	3.15	0.62	MC
Applied Science	3.24	0.69	MC	3.00	0.79	MC	3.20	0.65	MC	3.08	0.73	MC	3.13	0.63	MC
Hum & Soc Sci	3.03	0.71	MC	2.84	0.81	MC	3.14	0.83	MC	3.01	0.78	MC	3.00	0.71	MC
As a whole	3.07	0.69	MC	2.92	0.78	MC	3.17	0.79	MC	3.07	0.75	MC	3.06	0.67	MC

Note: CC=Critical Concern; MC=Major Concern

sacrificing core educational tenets (Anderson & Anderson, 2024; Chen et al., 2023).

Relationship between demographics and awareness of generative AI tools

While recent research often reports favorable academic attitudes toward Generative AI and acknowledges its potential advantages (Al-Zahrani, 2023; Ghimire et al., 2024; Chan & Hu, 2023), the present study determined that there was no significant association between demographic variables (including age, sex, or graduate program level) and awareness of these tools as found in Table 9. This result implies that awareness is uniformly distributed among diverse demographic groups within the institution, which contrasts with other studies that have observed gender-based utilization differences (Nyaaba et al., 2024; Strzelecki & ElArabawy, 2024). The generally positive view of GenAI, supported by the pervasive awareness found here, highlights its promising academic role but also underscores the necessity for developing appropriate support systems and ongoing ethical protocols as integration continues (Chan & Hu, 2023; Nyaaba et al., 2024; Al-Zahrani, 2023; Dergaa et al., 2023).

Relationship between demographics and frequency of utilization of generative AI tools

Research findings in Table 10 indicate that the Utilization of Generative AI tools in academic writing is not significantly impacted by factors such as gender, age, graduate program level, or field of study. This widespread adoption across diverse demographics and disciplines highlights the potential of these tools to democratize and enhance academic writing practices (Yusuf et al., 2024; Morande, 2023). Benefits include enhanced research efficiency, personalized learning, and broader accessibility (Dergaa et al., 2023; Dogru et al., 2023). However, ethical considerations regarding academic integrity, authorship, and potential biases remain crucial (Bozkurt, 2024; Farrelly & Baker, 2023). To ensure responsible and effective AI integration in academia, researchers recommend comprehensive policies, AI literacy programs, and transparency, thereby mitigating risks such as misinformation while maximizing the potential for improved learning and research outcomes (Lin, 2023; Mahama et al., 2023).

Relationship between perceived benefits, challenges, and utilization of generative AI tools in academic writing

Table 9

Relationship between demographics and awareness of Generative AI Tools

	ρ	df	p
Sex	-0.070	148	0.397
Age	-0.059	148	0.477
Graduate Program Level	0.089	148	0.281
Field of Study	0.015	148	0.857

Note: correlation is significant when p≤0.05

Table 10

Relationship between demographics and utilization of Generative AI tools

Frequency of Utilization	ρ	df	p
Sex	-0.075	148	0.360
Age	-0.094	148	0.252
Graduate Program Level	0.008	148	0.922
Field of Study	-0.112	148	0.173

Note: correlation is significant when p≤0.05

This research validates that awareness, perceived benefits, and perceived challenges regarding Generative AI (GenAI) all affect its utilization, consistent with prior findings (Ghimire et al., 2024; Holechek & Sreenivas, 2024; Baidoo-Anu & Ansah, 2023; Bies et al., 2024). Although GenAI provides numerous opportunities, the imperative for responsible integration is driven by concerns surrounding ethics, accuracy, and human oversight (Al-Zahrani, 2023; Yusuf et al., 2024). While the perception of benefits encourages utilization, issues such as doubts about accuracy can impact the frequency of use (Wang et al., 2024; Yeralan & Lee, 2023). Overcoming these challenges through education, increased transparency, and ongoing development is vital for building trust and promoting wider adoption,

Table 11A

Relationship between perceived benefits and utilization of Generative AI tools in academic writing

Variable	ρ	df	p
Benefits	0.464*	148	0.000

Note: *correlation is significant when p≤0.05

Table 11B

Relationship between challenges and utilization of Generative AI tools in academic writing

Variable	ρ	df	p
Challenges	-0.253*	148	0.002

Note: *correlation is significant when p≤0.05

Table 11C

Relationship between awareness and utilization of Generative AI tools in academic writing

Variable	ρ	df	p
Awareness	0.393*	148	0.000

Note: *correlation is significant when p≤0.05

particularly in educational settings where critical evaluation and ethical guidelines are essential (Fegade et al., 2023; Preiksaitis & Rose, 2023).

In summary, the results highlight the dynamic nature of Generative AI integration within graduate students' academic writing practices. The high rates of awareness and utilization of tools such as ChatGPT confirm their capacity for transformation, especially for tasks like research, brainstorming, and proofreading. Perceived benefits, including improved accessibility and efficiency, underscore the positive influence on the overall writing process. Nevertheless, persistent challenges remain, primarily related to critical thinking, transparency, and ethical concerns. The demonstrated positive correlation between awareness, utilization, and perceived benefits makes proactive guidance from academic institutions essential. This guidance must encompass establishing clear policies, implementing comprehensive training, and fostering open dialogue to guarantee the responsible use of AI, which supports academic exploration while strictly maintaining integrity. These findings add valuable perspective to the ongoing educational discourse on AI, advocating for a balanced methodology that enables students to utilize AI's advantages while upholding ethical standards and critically assessing its output.

5.0. Conclusion

Generative AI tools offer transformative potential in academic writing, enhancing tasks such as proofreading, brainstorming, and research, which translate into perceived benefits in efficiency and accessibility. However, this integration is complicated by persistent challenges related to concerns over critical thinking, transparency, and the ethical use of these tools. Given the strong positive correlation established between awareness, perceived benefits, and tool utilization, academic institutions must proactively respond by providing guidance through clear policies, comprehensive training, and open dialogue. This balanced approach is necessary to empower students to effectively leverage AI's benefits while critically evaluating its outputs and adhering to ethical standards, thereby promoting responsible AI usage.

6.0. Limitations of the Findings

Despite offering valuable insights, the study is constrained by four primary limitations: its focus on a single Philippine Catholic university inherently restricts the generalizability of the findings to other educational settings; the respondent selection, confined only to thesis and dissertation writers, may not accurately reflect the perspectives of the broader graduate student body; the mainly quantitative methodology limits the research's ability to capture the detailed, nuanced experiences of the students; and finally, the fast-paced development of Generative AI technology requires the findings to be periodically re-evaluated to ensure their continued practical relevance (citations, if present, would go here).

7.0. Practical Value of the Paper

This research offers significant practical utility for academic institutions by informing the creation of clear institutional policies and advancing the ongoing dialogue regarding the ethical and responsible integration of AI in higher education.

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8.0. Directions for Future Research

Future research ought to concentrate on two essential areas concerning the integration of Generative AI within graduate education. First, it is crucial to analyze the long-term effects of these tools on students' core competencies. This involves specifically studying how reliance on AI influences the cultivation of critical thinking skills and ultimately impacts academic achievement.

Second, scholars should assess the effectiveness of current or suggested pedagogical methods and training initiatives. This includes determining the most successful approaches for fostering the ethical and responsible utilization of Generative AI among graduate students and faculty.

Third, a definite need exists for cross-disciplinary and cross-cultural investigations to gain insight into the diverse challenges, experiences, and levels of acceptance of Generative AI across various academic and international environments. This comparative approach will provide a holistic view.

Finally, research must prioritize the development and assessment of comprehensive AI policies. These studies should focus on creating frameworks that can effectively reconcile the critical demands of academic integrity with the powerful, transformative capabilities offered by these new technological tools.

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9.0. Declaration of Conflict of Interest

The author reported no conflict of interest.

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