

Extent of Utilization and Psychological–Behavioral Drivers of Generative AI Adoption in Crafting School Guidelines

Jacqueline Elgario De La Cruz

Graduate School of Education, The Philippine Women's University, Taft Avenue, Manila, Philippines

jedelacruz@pwu.edu.ph

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ABSTRACT:

This study examined the level of knowledge, extent of utilization, and psychological and behavioral factors influencing the adoption of Generative Artificial Intelligence (GenAI) tools among school leaders. A mixed-methods research design was employed, combining survey data and thematic analysis of semi-structured interviews. Quantitative data assessed school leaders' knowledge and utilization of GenAI in terms of school operations, teaching and pedagogy, and school governance, while qualitative data explored challenges and concerns related to AI use. Results revealed that school leaders demonstrated a high level of knowledge of GenAI tools in school operations and teaching and pedagogy, but only a moderate level of knowledge in school governance. Despite this awareness, the extent of utilization across all domains was moderate, with governance showing the lowest level of AI use. Thematic analysis identified four major issues affecting AI adoption: limited utilization, lack of training, concerns about accuracy, and absence of person-centered policies. The findings further showed that professional experience significantly influences both knowledge and utilization, while age and gender have minimal impact. The study concludes that effective integration of GenAI in schools requires a person-centered and ethically grounded approach that addresses psychological readiness and behavioral concerns. Based on the findings, the study proposes the Artificial Intelligence Management Guidelines for Transformative Educational Change (AIM-TECH) to promote responsible, transparent, and sustainable use of Generative AI in educational leadership.

Keywords: generative AI tools, artificial intelligence, school operations, teaching and pedagogy, AI guidelines for schools

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1. Introduction

In higher education, Popenici and Kerr (2017) noted that AI is expected to revolutionize

educational delivery and teaching methods. Education managers are leveraging AI to address inequality and ensure that every student has the

opportunity to learn and acquire knowledge with the necessary support (Sharma, Soetan, Farinloye, Mogaji, and Noite, 2022).

The rapid advancement of generative artificial intelligence (AI) tools has introduced both opportunities and challenges in educational settings. Schools today is navigating the integration of AI-powered technologies—such as ChatGPT, Gemini, and other large language models (LLMs)—into teaching, learning, and administrative processes. However, the adoption of these tools varies widely across institutions, with some schools actively experimenting with AI-driven applications (Luckin, 2018) while others remain cautious due to concerns over academic integrity, data privacy, and ethical implications (Schiff, 2021).

Many schools lack clear policies on the use of generative AI, leading to inconsistent practices among educators and students (Zawacki-Richter et al., 2019). Some institutions have imposed outright bans on AI tools due to fears of plagiarism and diminished critical thinking (Hern, 2023) while others encouraged supervised use to enhance creativity and efficiency (UNESCO, 2021). The digital divide further complicates this landscape, as under-resourced schools struggle with limited access to AI technologies compared to well-funded counterparts (Selwyn, 2019). Educators also report concerns about the reliability of AI-generated content and the need for training to integrate these tools effectively (Fowler, 2023 and European Commission, 2022). Given these challenges, there is a need to study the extent of utilization of Generative Artificial Intelligence tools to craft Artificial Intelligence Guidelines for school. This study then attempted to look into this needed AI guidelines for the schools. This study also explored the application of Generative AI tools in School Operations, Teaching and Pedagogy, and School Governance, proposing a person-centered AI policy approach to mitigate the potential risks posed by AI technology.

2. Literature Review

The rapid integration of Generative Artificial Intelligence (GenAI) in education has transformed instructional practices, administrative processes, and institutional governance. While existing literature highlights AI's technical potential, recent studies emphasize that successful adoption depends not only on access and competence but also on the psychological readiness and behavioral responses of educational leaders (Luckin, 2018; Zawacki-Richter et al., 2019). This perspective is grounded in Technostress Theory, which explains how rapid technological change generates anxiety, cognitive overload, and resistance among professionals, particularly in high-responsibility roles such as school leadership (Tarafdar et al., 2019).

Psychological Factors in AI Adoption. Research indicates that educators' attitudes toward AI significantly influence adoption behaviors. Technostress—defined as anxiety arising from rapid technological change—has been identified as a major psychological barrier among school leaders, particularly in contexts involving high accountability and ethical responsibility (Tarafdar et al., 2019). Additionally, algorithm aversion, or mistrust of automated systems for complex decision-making, explains leaders' reluctance to use AI in governance-related tasks despite recognizing its operational benefits. This hesitation aligns with Algorithm Aversion Theory, which posits that individuals are less likely to rely on algorithmic systems when decisions involve ethical risk, accountability, or professional judgment (Dietvorst et al., 2015).

Fear of job displacement further contributes to resistance, as educators may perceive AI as a threat to professional identity rather than a collaborative tool (Pesovski et al., 2024). Studies show that when AI is framed as augmentative rather than substitutive, acceptance increases, highlighting the importance of mindset in technology integration (Lee et al., 2025).

Behavioral Drivers and Technology Acceptance. The Technology Acceptance Model (TAM) (Davis, 1989) provides the primary behavioral

framework for understanding AI utilization behavior in this study. TAM explains how perceived usefulness and perceived ease of use shape school leaders' intention and actual behavior in adopting Generative AI tools. Empirical studies reveal that school leaders are more likely to use AI for routine administrative and pedagogical tasks where benefits are immediate and risks are low, while demonstrating cautious behavior in governance functions involving policy, ethics, and accountability (Kasneci et al., 2023).

Behavioral patterns also vary according to experience rather than age. Contrary to assumptions that younger leaders adopt AI more readily, research shows that experienced educators demonstrate higher adoption when provided with adequate training and institutional support (Gorder, 2008; Fabro et al., 2024). This suggests that behavioral readiness, shaped by confidence and professional maturity, plays a critical role in AI adoption.

Ethical and Person-Centered Perspectives. Ethical considerations are central to AI integration in education. Scholars argue that AI policies must move beyond compliance-based frameworks toward person-centered approaches that emphasize trust, transparency, and shared accountability (Resseguier & Rodrigues, 2020). In the Philippine context, alignment with the Data Privacy Act of 2012 reinforces the need for ethical mindfulness in AI utilization, particularly in leadership and governance. This study is further informed by human-centered ethical frameworks, which emphasize trust, shared responsibility, and the preservation of human agency in technology-assisted decision-making (Resseguier & Rodrigues, 2020).

Recent literature underscores that the absence of localized, human-centered AI guidelines contributes to inconsistent practices and heightened anxiety among school leaders (Wood, 2023). Consequently, policies that address psychological concerns—such as fear, uncertainty, and ethical ambiguity—are essential for sustainable and responsible AI adoption in schools.

Although global research extensively documents AI applications in education, limited studies focus on school leaders' psychological and behavioral drivers of AI utilization, particularly within the Philippine setting. Most existing research emphasizes students or teachers and prioritizes technical integration over human experience. This gap highlights the need for studies that examine how mindset, trust, and behavioral intention shape AI adoption and inform the development of person-centered school AI guidelines.

3. Methodology

3.1. Research design

This study employed a mixed-methods descriptive research design, integrating quantitative and qualitative approaches to examine the psychological and behavioral drivers influencing school leaders' utilization of Generative Artificial Intelligence (GenAI) tools. The quantitative component focused on determining the level of knowledge and extent of utilization of GenAI across school operations, teaching and pedagogy, and governance. The qualitative component complemented the survey data by exploring school leaders' attitudes, perceptions, hesitations, and ethical considerations in adopting AI tools.

This mixed-methods approach allowed for a more comprehensive understanding of not only how GenAI tools are used but also why school leaders demonstrate varying levels of adoption and behavioral caution, particularly in governance-related functions.

3.2. Population and sampling

The respondents consisted of 112 school leaders, including principals, academic coordinators, and technology directors from ten secondary schools in Muntinlupa City. Participants were selected using purposive sampling, a non-probability sampling technique where participants were deliberately chosen based on specific characteristics relevant to the research objectives (Etikan et al., 2016). Ensuring that respondents held leadership roles directly involved in decision-making related to

instructional practices, administrative operations, or school governance.

All respondents had a minimum of three years of leadership experience and prior exposure to digital technologies, making them suitable informants for examining AI adoption behaviors and psychological readiness in educational leadership contexts.

3.3. Instrument

The study utilized a researcher-made survey questionnaire and a semi-structured interview guide as the primary data-gathering instruments. The survey questionnaire consisted of three parts: 1) demographic profile of the respondents (age, sex, and years of experience); 2) level of knowledge of Generative Artificial Intelligence tools in school operations, teaching and pedagogy, and governance; and 3) extent of utilization of Generative AI tools across the same domains.

Responses were measured using a four-point Likert scale ranging from 1 (Least Extent) to 4 (Great Extent). To complement the quantitative data, a semi-structured interview guide was developed to obtain qualitative insights into the psychological and behavioral factors influencing school leaders' adoption of Generative AI tools. The interview questions were designed to explore respondents' attitudes, perceptions, emotional responses, and ethical considerations, consistent with qualitative research approaches that seek to capture lived experiences and meaning (Creswell, 2014).

Specifically, the qualitative interview guide sought to answer the following objectives: 1) To explore school leaders' attitudes and perceptions toward the use of Generative AI tools in school operations, teaching and pedagogy, and governance; 2) To identify psychological barriers (e.g., anxiety, fear of job displacement, lack of trust, and ethical concerns) that influence AI adoption; 3) To examine school leaders' behavioral intentions and decision-making patterns when using AI tools, particularly in governance-related tasks; 4) To determine perceived benefits and risks associated with the

integration of Generative AI in leadership functions; and 3) To gather school leaders' insights on the need for person-centered and ethically grounded AI guidelines for schools.

The research instruments were validated by three experts in educational leadership and information technology. A pilot test was conducted among 30 school leaders who were not part of the main study. Reliability testing yielded a Cronbach's alpha of 0.91, indicating high internal consistency.

3.4. Data Gathering Procedure

Formal permission was obtained from school administrators prior to data collection. Informed consent was secured from all participants. Survey questionnaires were administered electronically, while interviews were conducted either face-to-face or through secure online platforms.

Interviews were audio-recorded with consent and transcribed verbatim to ensure accuracy. Participants were assured of confidentiality and informed of their right to withdraw at any time without consequence.

3.5. Data analysis

Quantitative data were analyzed using descriptive statistics (frequency, weighted mean, and standard deviation) and inferential statistics to determine significant differences when grouped according to demographic variables. Statistical analysis was conducted using JASP software.

Qualitative data were analyzed using thematic analysis (Braun & Clark, 2006), allowing patterns related to psychological barriers, behavioral readiness, and ethical concerns to emerge. The integration of quantitative and qualitative findings strengthened the interpretation of school leaders' AI adoption behaviors.

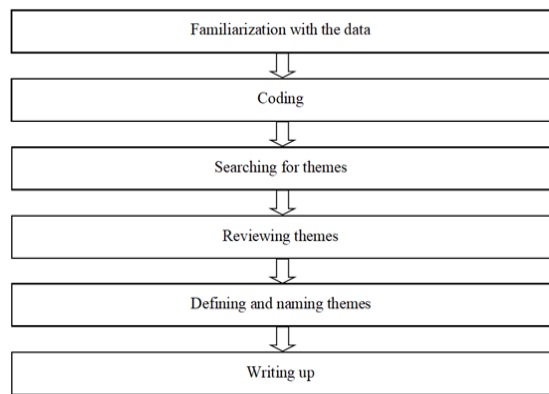


Figure 1. Six steps in conducting reflexive thematic analysis

3.6 Ethical Considerations

Ethical standards were strictly observed throughout the study. Respondents' identities were anonymized, and data were used solely for academic purposes. The study adhered to ethical research principles and aligned with the Data Privacy Act of 2012, particularly in handling sensitive institutional and personal information.

4. Result and Discussion

Problem 1: The level of knowledge of the respondents on the use of Generative AI Tools in terms of:

1.1 School Operations

Table 1. Level of Knowledge of the Respondents' Use of Generative AI Tools in Terms of School Operations

School Operations	Mean	Standard Deviation	VI
1. AI can be used for image recognition and search.	3.43	0.63	Great Extent
2. AI can be used for transcription and translation purposes.	3.06	0.78	Great Extent
3. I use GPT Chatbot in my daily tasks.	3.07	0.80	Great Extent
4. I communicate with AI voice assistants (such as Siri, and Baidu voice search).	3.13	0.74	Great Extent
5. AI technology can predict some things (such as interests, popular music, and books).	2.74	1.07	Moderate Extent
OVERALL	3.08	0.80	Great Extent

Table 1 presents the respondents' level of knowledge regarding the use of Generative AI tools in school operations. The overall weighted mean of 3.08 (SD = 0.80) indicates that school

leaders demonstrate a high level of knowledge, verbally interpreted as Great Extent.

Among the indicators, the highest mean was obtained by the use of AI for image

recognition and search (WM = 3.43), followed by communication with AI voice assistants (WM = 3.13) and the use of GPT chatbots in daily tasks (WM = 3.07). These findings suggest that respondents are highly familiar with AI applications that support administrative efficiency and routine operational tasks. In contrast, predictive AI applications such as forecasting interests and trends obtained the lowest mean (WM = 2.74), indicating only a moderate level of familiarity.

These results align with Lee et al. (2025), who emphasized that professionals engage with GenAI tools when such tools clearly support their work goals and operational needs. Similarly, Peralta and Costa (2007) found that confidence and competence in ICT usage significantly influence educators' familiarity with technological tools. However, Lee et al. (2025) also cautioned that excessive reliance on GenAI may erode critical thinking in information gathering, problem-solving, and task execution, underscoring the need for mindful and guided AI integration.

1.2 Teaching and Pedagogy

Table 2. Level of Knowledge of the Respondents' Use of Generative AI Tools in Terms of Teaching and Pedagogy

Teaching and Pedagogy	Mean	Standard Deviation	VI
1. I use AI technology in designing my lessons.	3.34	0.75	Great Extent
2. I utilize AI-related trends to engage my students in discussions.	3.03	0.80	Great Extent
3. I know how to use Grammarly, Gemini, Siri, and GPT-4 for purposes of teaching/learning.	3.09	0.77	Great Extent
4. I have explored several Generative AI tools to make learning more engaging and fun.	3.05	0.89	Great Extent
5. I know how to use Grammarly, Canva, Turn-It-In, etc.	2.96	0.82	Moderate Extent
OVERALL	3.07	0.80	Great Extent

Legend: 3.00-4.00 Great Extent; 2.00-2.99 Moderate Extent; 1.50-1.99 Low Extent; 1.00-1.49 Least Extent

As shown in Table 2, the overall weighted mean of 3.07 (SD = 0.80) indicates that respondents possess a high level of knowledge of Generative AI tools in teaching and pedagogy.

The highest-rated indicator was the use of AI in lesson design (WM = 3.34), followed by familiarity with AI tools such as Grammarly,

Gemini, Siri, and GPT-4 for teaching and learning purposes (WM = 3.09).

The lowest mean score (WM = 2.96) was recorded for the use of tools such as Grammarly, Canva, and Turnitin, suggesting only a moderate level of knowledge. This may be attributed to limited access, cost of subscriptions, or lack of formal training. Afshari et al. (2009) similarly reported that school leaders' technological competence influences their instructional leadership practices.

These findings partially diverge from Fabro et al. (2024), who found neutral attitudes toward AI use among Filipino students, and Alexandrowicz (2024), who reported limited AI utilization among K–12 educators. The disparity suggests that school leaders may exhibit higher awareness than classroom practitioners, reinforcing the need for leadership-driven AI capacity building.

1.3 School Governance

Table 3. Level of Knowledge of the Respondents' Use of Generative AI Tools in Terms of School Governance

School Governance	Mean	Standard Deviation	VI
1. I use AI for marketing purposes and administrative tasks, like writing emails, website content, drafts, replies with marketing content, and product descriptions.]	3.09	0.79	Great Extent
2. I know that I can use AI tools for writing emails, website content, drafts, replies with marketing content, and product descriptions.	2.76	0.90	Moderate Extent
3. I am currently using either Alphawatch, Datahel d, OpenAxis AI, Odoo, Clickup, Tuesdays, and Maya.	2.70	0.77	Moderate Extent
4. Our Learning Management System is an AI-generated tool that facilitates my work as a school leader/manager/supervisor.	2.65	0.88	Moderate Extent
5. AI tools are minimally used in my work, primarily for stimulating ideas and concepts related to my specific tasks.	2.64	0.98	Moderate Extent

OVERALL	2.76	0.86	Moderate Extent
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Legend: 3.00-4.00 Great Extent; 2.00-2.99 Moderate Extent; 1.50-1.99 Low Extent; 1.00-1.49 Least Extent

Table 3 indicates that respondents' level of knowledge of Generative AI tools in school governance yielded an overall weighted mean of 2.76 (SD = 0.86), verbally interpreted as Moderate Extent. The highest mean was recorded for the use of AI in marketing and administrative communication tasks (WM = 3.09), while the lowest mean was observed in the use of AI management platforms such as Alphawatch, Odoo, and ClickUp (WM = 2.64).

These results suggest that while school leaders are familiar with basic AI-supported administrative tasks, they have limited knowledge of advanced governance and analytics tools. Kasneci et al. (2023) emphasized that effective AI integration in education requires collaboration between educators and technology experts, particularly in leadership and governance contexts.

Summary of Level of Knowledge

Table 4. Summary of the Level of Knowledge of the Respondents' Use of Generative AI Tools

DOMAIN	School Leaders		
	Mean	S.D.	V.I.
School Operations	3.08	0.80	Great Extent
Teaching and Pedagogy	3.07	0.80	Great Extent
School Governance	2.76	0.86	Moderate Extent
OVERALL	2.97	0.82	Moderate Extent

Legend: 3.00-4.00 Great Extent; 2.00-2.99 Moderate Extent; 1.50-1.99 Low Extent; 1.00-1.49 Least Extent

Table 4 summarizes the level of knowledge across the three domains. School operations (WM = 3.08) and teaching and pedagogy (WM = 3.07) were rated at a Great Extent, while school governance (WM = 2.76) was rated at a Moderate Extent. This pattern indicates that school leaders possess stronger knowledge in operational and pedagogical applications of AI than in

2.1 School Operations

governance-related functions, which may influence subsequent utilization behavior.

Problem 2: Extent of Utilization of the Respondents on the Use of Generative AI Tools

Table 5. Extent of Utilization of the Respondents on the Use of Generative AI Tools in Terms of School Operations

	Mean	Standard Deviation	VI
School Operations			
1. AI can be used for image recognition and search.	3.38	0.75	Great Extent
2. AI can be used for transcription and translation purposes.	3.57	0.61	Great Extent
3. I use GPT Chatbot in my daily tasks.	2.23	0.92	Moderate Extent
4. I communicate with AI voice assistants (such as Siri and Baidu voice search).	2.26	0.78	Moderate Extent
5. AI technology can predict some things (such as interests, popular music, and books).	3.23	0.74	Great Extent
6. I can utilize AI in my administrative tasks, such as Grammarly, Canva, and Turnitin, among others.	3.20	0.77	Great Extent
7. I use a web application to manage my daily work routine.	3.03	0.69	Great Extent
OVERALL	2.98	0.75	Moderate Extent

Legend: 3:00-4:00 Great Extent; 2:00-2.99 Moderate Extent; 1.50-1.99 Low Extent; 1.00-1.49 Least Extent

Table 5 presents the extent of utilization of Generative AI tools in school operations. The overall weighted mean of 2.98 (SD = 0.75) indicates a Moderate Extent of utilization. The highest-rated indicator was the use of AI for transcription and translation purposes (WM = 3.57), followed by image recognition and search

(WM = 3.38) and the use of AI tools for administrative tasks such as Grammarly, Canva, and Turnitin (WM = 3.20).

In contrast, the use of GPT chatbots in daily tasks yielded the lowest mean (WM = 2.23), suggesting limited integration of conversational AI into routine workflows. These findings

indicate that school leaders are more inclined to utilize AI for task automation and clerical efficiency rather than for interactive or decision-support functions.

The results are consistent with Estrellado (2023), who emphasized that AI adoption in Philippine education is primarily driven by efficiency gains in administrative tasks. However,

they contrast with Wang et al. (2024), who reported higher levels of AI use among college instructors in the United States. This disparity suggests contextual differences in institutional readiness and leadership practices across educational systems.

2.2 Teaching and Pedagogy

Table 6. Extent of Utilization of the Respondents on the Use of Generative AI Tools in Terms Teaching and Pedagogy

	Mean	Standard Deviation	VI
Teaching and Pedagogy			
1. I use and promote AI technology in teaching/administrative tasks.	3.18	0.65	Great Extent
2. I utilize AI-related trends to engage my students in discussions.	2.70	0.79	Moderate Extent
3. I must learn the basics of AI to maximize its utilization in teaching.	3.45	0.61	Great Extent
4. I have explored several Generative AI tools to make learning more engaging and fun.	2.93	0.76	Moderate Extent
5. AI tools enhance my teaching skills.	3.05	0.71	Great Extent
6. I am not adept at new technologies.	2.23	0.93	Moderate Extent
7. I recognize that managing my work and tasks will be enhanced with the use of AI tools.	3.27	0.74	Great Extent
OVERALL	2.97	0.74	Moderate Extent

Legend: 3.00-4.00 Great Extent; 2.00-2.99 Moderate Extent; 1.50-1.99 Low Extent; 1.00-1.49 Least Extent

As shown in Table 6, the overall weighted mean of 2.97 (SD = 0.74) indicates a Moderate Extent of utilization of Generative AI tools in teaching and pedagogy. Respondents reported

high utilization in promoting AI technology in teaching and administrative tasks (WM = 3.18) and in recognizing AI's role in enhancing task management (WM = 3.27). The highest mean was

recorded for the recognition of the need to learn AI basics to maximize its use (WM = 3.45).

However, moderate utilization was observed in exploring multiple AI tools for instructional engagement (WM = 2.93) and in using AI-related trends to facilitate classroom discussions (WM = 2.70). These findings suggest that while school leaders acknowledge AI's pedagogical value, actual classroom integration remains cautious and selective.

This pattern aligns with Farahani and Ghasmi (2024), who noted that AI adoption in education is growing but remains uneven due to varying levels of confidence and training. Similarly, Bellas et al. (2024) emphasized the importance of structured instructional resources to support effective AI integration in pedagogy.

2.3 School Governance

Table 7. Extent of Utilization of the Respondents on the Use of Generative AI Tools in Terms of School Governance

	Mean	Standard Deviation	VI
School Governance			
1. I use AI for marketing purposes and administrative tasks, like writing emails, website content, drafts, replies with marketing content, and product descriptions.	2.91	0.77	Moderate Extent
2. I utilize AI in generating real-world data-backed answers through simple natural language queries. These answers are presented in the form of charts and visualizations to integrate processes and make market searches even quicker.	2.77	0.70	Moderate Extent
3. I am currently using either Alphawatch, Dataheld, OpenAxis AI, Odoo, Clickup, Tuesdays, and Maya.	1.96	0.78	Low Extent
4. Our management records are fully automated from record generation to analysis of administrative reports.	2.50	0.72	Moderate Extent
5. Guided by ethical principles, I limit my use of AI generative tools to clerical tasks or data generation. I acknowledge the source/s in my reports.	2.80	0.67	Moderate Extent

6. AI tools are minimally used in my work, primarily for stimulating ideas and concepts related to my specific tasks.	2.63	0.79	Moderate Extent
OVERALL	2.59	0.74	Moderate Extent

Legend: 3:00-4:00 Great Extent; 2:00-2.99 Moderate Extent; 1.50-1.99 Low Extent; 1.00-1.49 Least Extent

Table 7 shows that the overall extent of utilization of Generative AI tools in school governance yielded a weighted mean of 2.59 (SD = 0.74), interpreted as Moderate Extent. The highest-rated item involved the use of AI for marketing and administrative communication tasks (WM = 2.91), while the lowest-rated item pertained to the use of advanced governance platforms such as Alphawatch, Dataheld, and Odoo (WM = 1.96).

These results indicate that school leaders primarily utilize AI for clerical and

documentation-related functions, while advanced governance and analytics tools remain underutilized. This pattern reflects ethical caution and limited familiarity with specialized applications, consistent with findings by Estrellado (2023) and Rahim et al. (2018), who highlighted the importance of data-driven decision-making tools in educational leadership.

Problem 3: Significant Difference in the Extent of Utilization When Grouped According to Demographic Profile

Table 8. Significant Difference in the Extent of Utilization of Generative AI tools When Grouped According to Demographic Profile

Coefficient of Correlation		Age	Sex	Teaching Experience
School Operations	Pearson r	-0.18	-0.024	0.032
	coefficient	Very Low positive correlation	Very Low Positive correlation	Low Positive correlation
	Sig. p-value	0.58 (Not Significant)	0.80 (Not Significant)	0.01 (Significant)
Teaching and Pedagogy	Pearson r	-0.24	-0.07	-0.50
	coefficient	Moderate positive correlation	Moderate positive correlation	Moderate positive correlation
	Sig. p-value	0.012 (Not Significant)	0.04 (Not Significant)	0.01 (Significant)
School Governance	Pearson r	-0.47	0.03	0.25
	coefficient	Low positive correlation	Low positive correlation	Very Low positive correlation
	Sig. p-value	0.01 (Significant)	0.72 (Not Significant)	0.08 (Significant)

Table 8 presents the correlation between demographic variables and the extent of utilization of Generative AI tools. Results indicate that age has a minimal influence on AI utilization across all domains. In contrast, years of teaching experience showed a significant positive correlation, particularly in teaching and pedagogy ($p = 0.01$) and school governance ($p < .01$).

These findings suggest that utilization behavior is shaped more by professional experience than by age or gender, supporting

Gorder's (2008) assertion that experience influences technology adoption through increased confidence and instructional autonomy. Similar observations were noted by Teo (2008), who emphasized that behavioral intention and perceived usefulness are critical predictors of technology use.

Problem 4: Problems and Issues in the Utilization of Generative AI Tools

Table 9. Problems and Issues in the Utilization of Generative AI Tools

Themes	Significant Statements
Limited Utilization	"I have not used the AI tools." (SL1)
	"I am familiar with ChatGPT but I have limited application in governance-related tasks." (SL2)
	"It is underutilized since I am comfortable with old school methods." (SL3)
	"I minimally use it because I don't have the device." (SL4)
	"I don't use it. There is a need for proper orientation on the use of AI tools in the school system." (SL5)
	"I still prefer using books as my references." (SL5)
	"We haven't integrated it deeply into our workflow." (SL6)
Lack of Training	"There's hesitation about relying too much on AI since I'm still comfortable with traditional methods." (SL7)
	"There is a lack of proper orientation on the use of AI tools in the school system." (SL8)
	"More training to increase awareness." (SL9)
	"The school may conduct seminar-workshop about AI." (SL10)
	"The policies if properly disseminated to every member of the school community, the use of AI tools would help in the development of competitive citizens and useful members of the nation." (SL11)
	"There was no formal training on how to use it." (SL12)
	"Proper workshops and trainings would make a difference." (SL13)
Lack of Accuracy and Reliability	"It could lead to misinformation and propaganda." (SL14)
	"Teachers and administrators who solely rely on AI." (SL15)
	"It makes them dependent on the staff who can navigate different online applications or web sources. We do not have a policy on AI yet." (SL16)
	"AI is the future, but we may use it cautiously, as Filipinos are very vulnerable to fraud, fake news, and other AI-related issues." (SL17)
	"AI must be free of bias or must have transparency." (SL18)
Lack of Person-Centered and Ethical Policies	"We're cautious about relying on it for critical tasks." (SL19)
	"The assessment policy outlines that students are not permitted to use AI-generated content for their assignments, quizzes, and other coursework." (SL20)

“I do not remember if any policies were provided.” (SL21)
“No, there is none on my part.” (SL22)
“For ethical considerations, teachers should be mindful of the ethical implications of AI tool usage, including potential biases and privacy concerns.” (SL23)
“Data Privacy Act.” (SL24)
“AI is beneficial and should be used with self-control and discipline. We must be aware of its pros and cons.” (SL25)
“For classroom management, teachers can utilize AI tools to automate tasks, such as grading and scheduling, thereby optimizing their time and resources.” (SL26)
“For ethical considerations, teachers should be aware of the potential ethical implications of using AI tools, including the possibility of biases and privacy concerns.” (SL27)
“It will reveal how administrators view AI.” (SL28)
“Yes, we have departmental policies aligned with our school’s vision and mission, emphasizing ethical and responsible integration of technology. However, we do not yet have an institutional ethical framework specifically for AI.” (SL29)
“There’s no policy in place.” (SL30)

Table 9 presents the qualitative findings regarding problems and issues encountered by school leaders in utilizing Generative AI tools. Four major themes emerged: limited utilization, lack of training, lack of accuracy, and lack of person-centered policies.

Theme 1: Limited Utilization of Generative AI Tools

The first theme, limited utilization, reflects respondents’ restricted engagement with Generative AI tools despite general awareness of their existence. Several school leaders admitted that they either rarely use AI tools or rely primarily on traditional methods in performing administrative, instructional, and governance-related tasks.

Statements such as “I have not used the AI tools,” and “It is underutilized since I am comfortable with old school methods” suggest that familiarity with conventional practices continues to shape behavioral preferences. This hesitancy may stem from discomfort with technological change, limited access to devices, or uncertainty about the practical value of AI tools in daily work routines.

These findings align with Lau and Sim (2008), who reported that educators’ adoption of ICT is influenced by comfort level and prior experience. Similarly, Russell et al. (2003) found that even technologically skilled educators may struggle to integrate new technologies meaningfully due to competing professional demands. In this study, limited utilization reflects not resistance to innovation, but rather a behavioral tendency toward cautious and selective adoption.

Theme 2: Lack of Training and Professional Development

The second theme highlights the lack of training as a significant barrier to effective AI utilization. Respondents consistently emphasized the absence of formal orientation, workshops, or institutional support related to Generative AI.

Statements such as “There was no formal training on how to use it” and “Proper workshops and trainings would make a difference” reveal a strong desire for structured professional development. Without adequate training, school leaders expressed uncertainty in applying AI tools confidently and responsibly, particularly in governance and decision-making roles.

This finding is supported by Edelsburg et al. (2024), who emphasized that AI training enables educators to streamline administrative tasks while maintaining instructional quality. Kasneci et al. (2023) similarly noted that participation in AI-related training significantly influences positive attitudes toward AI adoption. In this study, the lack of training contributes to low behavioral readiness, reinforcing the need for institutional capacity-building initiatives.

Theme 3: Concerns on Accuracy, Reliability, and Overdependence

The third theme centers on concerns regarding accuracy and reliability of AI-generated outputs. Respondents expressed apprehension that AI tools may produce misinformation, biased content, or unreliable results, particularly when used without human verification.

Statements such as “It could lead to misinformation and propaganda” and “We’re cautious about relying on it for critical tasks” reflect a shared concern about overdependence on AI. School leaders emphasized the importance of human judgment and oversight, especially in academic and governance-related decisions.

These concerns align with Edelsburg et al. (2024), who warned that overreliance on AI may lead to superficial work and diminished critical thinking. The findings also resonate with broader discussions on ethical AI use, where human agency remains central in evaluating AI-generated information. In this study, accuracy concerns function as a psychological barrier, shaping cautious and controlled AI utilization behavior.

Theme 4: Lack of Person-Centered Policy Guidelines

The final theme underscores the absence of clear, person-centered AI policies in schools. Many respondents reported that no formal institutional guidelines exist to govern AI use, while others were uncertain whether such policies had been communicated.

Statements such as “There’s no policy in place” and “I do not remember if any policies were provided” highlight inconsistencies in policy

awareness and implementation. Respondents emphasized the need for guidelines that not only regulate AI use but also promote ethical responsibility, transparency, and collective accountability.

This finding supports Ravi Kumar and Raman (2022) and Zou et al. (2020), who stressed the importance of comprehensive AI policies that address ethical, pedagogical, and social implications. Pellas (2023) further emphasized that leadership plays a critical role in shaping responsible AI practices. In the present study, the lack of person-centered policies contributes to uncertainty and anxiety among school leaders, reinforcing the need for structured and human-centered AI governance frameworks.

Overall, the qualitative findings reveal that school leaders’ utilization of Generative AI tools is influenced by a complex interplay of behavioral caution, psychological readiness, ethical concerns, and institutional support. Limited utilization, insufficient training, concerns about accuracy, and the absence of person-centered policies collectively explain why AI adoption remains moderate despite high levels of awareness and knowledge.

These themes substantiate the need for person-centered AI guidelines that address not only technical competencies but also the emotional, ethical, and behavioral realities faced by school leaders in adopting Generative AI tools.

Problem 7: Proposed Generative Artificial Intelligence School Guidelines Artificial Intelligence Management Guidelines for Transformative Educational Change (AIM-TECH)

Rationale

The rapid integration of Generative Artificial Intelligence (GenAI) in education has significantly influenced school operations, teaching and pedagogy, and school governance. However, findings of the study revealed that despite a high level of knowledge among school leaders, the extent of utilization of GenAI tools

remains moderate, particularly in governance-related functions. Qualitative findings further identified limited utilization, lack of training, concerns on accuracy, and absence of person-centered policies as major issues affecting AI adoption in schools.

In school operations, AI tools are increasingly used to automate administrative tasks, yet concerns remain regarding oversight and alignment with data protection standards. In teaching and pedagogy, GenAI remains underutilized for personalized learning, content generation, and assessment support due to limited familiarity and confidence among educators. In school governance, the lack of comprehensive AI policies and ethical frameworks exposes institutions to risks such as misuse, bias, and data privacy violations.

These challenges highlight the need for responsible, ethical, and person-centered AI guidelines grounded in transparency, fairness, accountability, and human agency. In response, this study proposes the Artificial Intelligence Management Guidelines for Transformative Educational Change (AIM-TECH) to guide school leaders in the ethical and effective implementation of Generative Artificial Intelligence.

General Objective

To establish Generative Artificial Intelligence guidelines for schools that promote responsible, ethical, and person-centered AI integration.

Target Beneficiaries

- School Leaders
- Teachers
- Students

A. School Operations

Objective: To develop policies for the ethical and efficient implementation of Generative Artificial Intelligence in school operations.

1. The AI Ethics Committee shall deploy an approved list of AI tools, prioritizing secure and vetted platforms while restricting unverified applications.

2. The Committee shall institute an AI Workflow Certification Program requiring administrative staff to complete training on ethical automation of routine tasks such as scheduling and report generation.
3. A Red Flag Monitoring System shall be established to identify unusual AI usage patterns and potential data privacy violations.
4. A standardized AI-Assisted Document Template Library shall be developed to ensure consistency and human oversight in AI-generated documents.

B. Teaching and Pedagogy

Objective: To ensure the ethical, responsible, and pedagogically sound use of Generative Artificial Intelligence in teaching and learning.

1. Teachers shall maintain an AI-Assisted Lesson Plan Log documenting AI tools used, prompts applied, and human modifications made.
2. A standardized Student AI Use Policy shall be adopted, permitting AI use for brainstorming and language support while prohibiting submission of unedited AI-generated outputs.
3. An AI-Augmented Assessment Framework shall define permissible levels of AI assistance across various assessment types.
4. The AI Ethics Committee shall conduct biannual training workshops to help teachers identify AI-generated work and design assessments that promote academic integrity.

C. School Governance

Objective: To guide school leaders in the responsible integration of Generative Artificial Intelligence in leadership and governance functions.

1. An AI Ethics Committee composed of administrators, teachers, parents, and

student representatives shall be established.

2. The Committee shall review and revise AI policies annually to ensure transparency, fairness, and compliance with data privacy regulations.
3. Reported cases of AI misuse, including plagiarism and biased automated decisions, shall be investigated and addressed accordingly.
4. A Three-Tiered AI Authorization System shall be implemented based on risk assessment:
5. An AI Usage Transparency Portal shall be developed to document AI-related decisions and applications for community review.
6. Equity Assurance Protocols shall be implemented to provide access to AI resources for learners without personal devices and alternative options for families who opt out.

D. Implementation and Monitoring

1. AIM-TECH shall be implemented through a 12-month phased rollout, beginning with governance policies, followed by teacher training and community-wide adoption.
2. Quarterly compliance audits and biannual stakeholder feedback sessions shall be conducted to evaluate effectiveness and address emerging concerns.
3. Clear sanctions for policy violations shall be enforced, accompanied by corrective interventions and an appeals process facilitated by the Ethics Committee.

E. Sustainability Measures

1. AI literacy modules shall be integrated into teacher induction programs and student orientation sessions.

2. Regional AI resource hubs shall be formed to promote collaboration and sharing of best practices among schools.
3. Annual impact reports shall be published to monitor outcomes such as efficiency gains, academic integrity issues, and stakeholder satisfaction.

5. Conclusion

This study examined the level of knowledge, extent of utilization, and psychological and behavioral factors influencing the adoption of Generative Artificial Intelligence (GenAI) tools among school leaders using a mixed-methods approach. Findings revealed that school leaders possess a high level of knowledge of GenAI tools in school operations and teaching and pedagogy, while knowledge in school governance is moderate. Despite this awareness, the extent of utilization across all domains remains moderate, with the lowest use observed in governance-related functions.

Qualitative findings showed that AI adoption is shaped by limited utilization, lack of training, concerns about accuracy, and the absence of person-centered policies. School leaders demonstrated caution in using GenAI, particularly in high-accountability tasks, due to ethical concerns, fear of misinformation, and professional responsibility. The results further established that professional experience, rather than age or gender, significantly influences both knowledge and utilization of GenAI tools.

Overall, the findings indicate that effective AI integration in schools requires more than technical knowledge. A person-centered and ethically grounded approach is necessary to address psychological readiness and behavioral concerns. In response, the study proposed the Artificial Intelligence Management Guidelines for Transformative Educational Change (AIM-TECH) to support responsible, transparent, and sustainable adoption of Generative AI in educational leadership.

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