

# GENERATIVE AI: PERSPECTIVES OF TEACHING INTERNS

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**ABSTRACT:** *This study explores the perspectives of teaching interns on the use of Generative AI tools, focusing on their awareness and extent of use in lesson planning classroom-based action research and electronic portfolio. The research involved 162 teaching interns from various specializations, predominantly female (77.2%) and enrolled in programs such as Bachelor of Secondary Education (BSED), Bachelor of Physical Education (BPED), Bachelor of Early Childhood Education (BECED), and others. Their internship grades were generally high, with 59.3% scoring 96 and above. The findings indicate that interns are most aware of ChatGPT, with 53.7% being fully aware, while awareness of other AI tools like Microsoft Copilot, Gemini, GitHub Copilot, and Claude is significantly lower. Despite moderate awareness of ChatGPT, the integration of Generative AI into their teaching practice is minimal. In lesson planning, interns rarely use AI, with a weighted mean of 2.22, categorized as "Rarely." Specific tasks such as formulating SMART objectives, integrating cross-disciplinary content, and designing interactive activities were seldom supported by AI. Similarly, the use of Generative AI in classroom-based action research was limited, with a weighted mean of 2.08. Tasks like narrowing down research problems, generating hypotheses, and designing data collection instruments were rarely supported by AI tools. In the same vein, there was rare utilization of AI tools in the making of electronic portfolios with a weighted mean of 2.27. This ranged from making templates to generating captions that interns use for documentation to reflect their journey in the field. Generally, the teaching interns' profile variables had a negligible relationship with their extent of use of Generative AI. However, the interns' program and area of specialization play a role in determining how frequently they use Generative AI in Lesson Planning. Those with higher academic performance were also less likely to rely on the use of AI for the making of their electronic portfolios. This minimal integration suggests a gap between awareness and practical application, highlighting the need for targeted training to enhance AI utilization in educational tasks. The study concludes that while teaching interns are aware of certain AI tools, their application in educational settings remains underdeveloped. Recommendations include integrating AI literacy into teacher education programs to bridge the gap between awareness and usage, ultimately improving the interns' confidence and competency in leveraging AI for effective teaching and research.*

**Keywords:** Generative AI tools, teaching interns, ChatGPT, lesson planning, classroom-based action research, electronic portfolio, AI awareness, AI integration, teacher education, SMART objectives, AI in education

## 1. INTRODUCTION

The integration of generative artificial intelligence (GenAI) tools, such as ChatGPT, into educational contexts has gained significant attention in recent years. These tools have the potential to transform how teaching interns approach lesson planning, classroom management, and overall pedagogy. As AI technologies continue to evolve, it becomes crucial to understand the perspectives of pre-service teachers, especially teaching interns, who are at the forefront of adopting these tools in their professional practice.

Generative AI offers various advantages, such as assisting with lesson plan creation, fostering critical thinking, and enhancing teaching efficiency [1]; [2]. In the context of teaching internship, the use of AI tools can provide both instructional support and a platform for action research, allowing interns to refine their pedagogical approaches and gain valuable insights into student learning [3]; [4]. However, the widespread use of GenAI tools raises concerns about their impact on academic integrity, privacy issues, and the potential for over-reliance on technology [5]; [6].

Teaching interns, as novice educators, may experience a mix of enthusiasm and apprehension toward the adoption of GenAI in their teaching practices. Studies have shown that preservice teachers' readiness to integrate AI-based tools into education depends on their technological, pedagogical, and content knowledge [7]; [8]. While some interns view GenAI as a valuable tool for lesson planning and assessment [1], others express concerns about its implications for creativity, critical thinking, and ethical pedagogy [2].

The existing literature largely focuses on the use of AI in education from the perspective of experienced educators,

administrators, or students. Studies have highlighted the benefits of AI in personalizing learning experiences and enhancing content creation, but research on the attitudes and behaviors of teaching interns towards these technologies is limited. Specifically, there is a gap in understanding how pre-service teachers' profiles—such as their sex, program specialization, and academic performance—affect their adoption and utilization of Generative AI in key educational activities stipulated as requirements for teaching internships (JCDMO No. 01, Series 2021).

Thus, this study seeks to fill this research gap by examining the relationship between teaching interns' demographic profiles and their extent of Generative AI utilization in three critical areas: lesson planning, classroom-based action research, and e-portfolio development. By focusing on this cohort of future educators, the research aims to contribute to the ongoing discussion on the role of AI in teacher education, providing valuable insights into how technological innovations are being integrated at the formative stage of teaching careers.

Furthermore, the study assesses the broader implications of AI adoption for teacher education programs, offering recommendations for curriculum design, professional development, and policy changes that can better prepare pre-service teachers for an AI-enhanced educational landscape.

Specifically, it purports to shed light to the following questions:

1. What is the teaching interns' profile according to:
  - 1.1 sex;
  - 1.2 program and area of specialization; and

- 1.3 Teaching Internship Grade
2. What is the teaching interns' level of awareness of the following commonly used Generative AI?
3. What is the teaching interns' extent of use of Generative AI in the making of:
  - 3.1 Lesson plan;
  - 3.2 Classroom-based action research
  - 3.3 Electronic portfolio
4. Is there a significant relationship between the teaching interns' profile and the extent of use of Generative AI in the Lesson Plan?
  - 4.1 Lesson Plan
  - 4.2 Classroom-Based Action Research
  - 4.3 E-Portfolio

## 2. REVIEW OF RELATED LITERATURE

The use of generative artificial intelligence (GenAI) in education, particularly among teaching interns, has garnered significant attention due to its potential to revolutionize teaching practices. Generative AI tools, such as ChatGPT, Midjourney, and Google Gemini, offer a variety of applications, from lesson planning and content creation to enhancing student engagement. These tools promise to assist interns in improving their teaching by providing immediate support for lesson development and academic research. However, their integration into educational settings, especially within teacher education programs, requires a nuanced understanding of both their advantages and the challenges they present.

### The Role of Generative AI in Education

Generative AI tools have been integrated into various aspects of education, from lesson planning to assessment and feedback, thereby enabling educators to shift focus from routine administrative tasks to more interactive and student-centred teaching methods [9]. For teaching interns, AI provides a valuable resource for creating and refining lesson plans, as well as for generating teaching materials and fostering creativity [1]; [2]. These tools offer personalized support for action research, assisting teaching interns in designing their studies and interpreting classroom data [3]. The use of AI can also improve the efficiency of the teacher preparation process, making it easier for interns to experiment with new pedagogical techniques and refine their approach based on immediate feedback.

ChatGPT, for example, has been found to generate well-structured lesson plans, but these often require refinement to meet specific curriculum standards and accommodate the unique dynamics of classrooms [8]. While AI tools can facilitate lesson development, teaching interns must be equipped to critically assess AI-generated content for accuracy, relevance, and creativity. This skill is especially crucial when using AI to conduct action research, as AI can generate insights but might not always align perfectly with educational goals or standards [8].

### Teaching Interns' Perceptions and Readiness

Research on teaching interns' perceptions of AI tools suggests a broad spectrum of opinions regarding the integration of GenAI in their educational practices. According to Thararattanasuwan and Prachagool [10], pre-service teachers generally express a moderately favorable view of AI technology, but they also express concerns

regarding the ethical implications and potential limitations of AI. Similarly, studies on preservice teachers' readiness to adopt AI-based tools in education highlight the need for more comprehensive training that emphasizes both the benefits and challenges of using these technologies [7]; [11]. Preservice teachers often report a lack of confidence in utilizing these tools effectively, and while AI tools like ChatGPT may reduce the time spent on lesson planning, interns may still struggle with how to incorporate AI-generated content in ways that align with their pedagogical approaches.

The study by Dilara Yılmaz Can [2] and Ceyda Durmuş [2], which compared the use of ChatGPT and traditional methods for lesson planning, found that interns using AI felt more efficient in designing lessons but still needed support in managing the quality and relevance of AI-generated content in real classroom settings. This underscores the need for teaching interns to develop critical evaluation skills to ensure that AI-generated lesson plans and materials are appropriate for their teaching context.

### Challenges and Ethical Concerns

Despite the advantages that AI offers in teaching and research, several challenges and ethical concerns have been highlighted in recent studies. Arowosegbe, Alqahtani, and Oyelade [5] found that AI-generated content often raises questions about academic integrity, with concerns about plagiarism and over-reliance on AI for generating assignment content. Powell and Courchesne [4] observed that while GenAI tools can support lesson planning, they may inadvertently encourage students to focus more on assignment completion rather than deep, critical thinking. For teaching interns, these concerns extend to the impact of AI on the originality and authenticity of their lesson plans and research outputs.

Moreover, as Chiu [12] noted in his study, the implementation of AI tools like ChatGPT and Midjourney in schools necessitates the development of clear policies and guidelines to ensure that AI is used ethically and responsibly. Teaching interns must be informed about the potential ethical pitfalls of AI, including concerns related to data privacy, the role of AI in student assessments, and its effect on teacher-student dynamics. These concerns emphasize the importance of professional development and training that empowers interns to use AI effectively while maintaining high standards of academic integrity and ethical practice.

### Generative AI in Academic Research and Lesson Planning

AI's impact on academic research, particularly in terms of lesson planning and action research, has been another focus of recent studies. Research on AI-generated lesson plans, such as the study by Ahmet Baytak [8], has shown that while tools like ChatGPT and Google Gemini can produce detailed and structured lesson plans, they may not always align with educational objectives or curriculum standards without human intervention. This aligns with the findings of Powell and Courchesne [4], who observed that AI-generated lesson plans were often too simplistic or generic without adjustments to fit specific classroom contexts.

In academic research, AI tools offer numerous applications, including assistance with data collection, transcription, and content analysis. According to Ogunleye et al. [9], while

some researchers have focused on the detection of AI-generated text, more emphasis needs to be placed on how AI can support academic research, particularly in curriculum design and assessment. AI tools provide teaching interns with the ability to conduct faster, more efficient research, such as in the areas of educational outcomes and teaching effectiveness. However, as highlighted in the study by Kehoe [7], the integration of AI into academic research practices requires careful consideration of how AI can be effectively used without undermining the creativity and critical thinking needed in educational research.

#### **Future Directions and Policy Implications**

The growing interest in AI's role in education calls for the development of comprehensive guidelines and frameworks for its effective use in teaching and research. The findings of studies like those conducted by Chiu [12] and Uygun [6] highlight the need for clear policies that guide the use of AI in education, particularly concerning issues such as AI-generated content, assessment, and ethical considerations. For teaching interns, these guidelines can provide much-needed structure for incorporating AI tools into their lesson planning, classroom practices, and academic research. Future research should focus on developing strategies to mitigate concerns such as academic dishonesty, over-reliance on technology, and maintaining the integrity of the teaching process.

### **3. SIGNIFICANCE OF THE STUDY**

This study holds significant value for various stakeholders in the field of education, particularly in understanding how Generative AI tools are integrated into teaching practices:

#### **Teaching Interns**

The findings will help teaching interns become more aware of the potential benefits and limitations of using Generative AI tools, such as ChatGPT, Microsoft Copilot, Gemini, GitHub Copilot, and Claude, in their professional practice. This awareness can enhance their lesson planning, classroom-based action research, and electronic portfolio development, leading to more innovative and efficient teaching methods.

#### **Teacher Education Institutions**

By identifying the level of awareness and extent of AI usage among teaching interns, teacher education institutions can develop more targeted training programs that incorporate AI literacy and skills. This will ensure that future educators are well-prepared to leverage AI technologies in their instructional practices.

#### **Curriculum Developers**

The study provides insights into the integration of AI tools in the curriculum, offering a basis for incorporating AI-related competencies into teacher education programs. This could lead to the development of more relevant and forward-thinking curricula.

#### **Educational Policymakers**

The results can guide policymakers in crafting guidelines and policies that encourage the responsible use of AI tools in education. By understanding the relationship between interns' profiles and their AI usage, policies can be tailored to promote equitable access and effective AI integration in teaching and learning.

#### **Future Researchers**

This study serves as a foundational reference for future research exploring the role of AI in education, particularly in

teacher preparation programs. It opens avenues for further investigation into the long-term impact of AI tools on teaching efficacy and student outcomes.

Overall, this research contributes to the evolving discourse on technology-enhanced education, fostering a deeper understanding of how Generative AI can transform teaching and learning in the 21st century.

## **4. METHODOLOGY**

### **Research Design**

This study employs a descriptive-correlational research design to explore the level of awareness and extent of use of Generative AI tools among teaching interns. The descriptive aspect examines the interns' awareness and usage patterns, while the correlational aspect investigates the relationship between their demographic profiles and the extent of AI use in lesson planning, classroom-based action research, and electronic portfolios.

### **Research Respondents**

The study is conducted at Negros Oriental State University (NORSU) – Main Campus, where teaching interns from various education programs are completing their practicum.

### **Population and Sampling**

The target population consists of Bachelor of Secondary Education (BSED) teaching interns. A purposive sampling technique is used, selecting respondents who have completed at least one semester of their teaching internship and have been exposed to Generative AI tools. The sample size is determined using Slovin's formula with a 5% margin of error.

### **Research Instrument**

A researcher-made survey questionnaire is used to gather data. The instrument is divided into three parts:

**Demographic Profile** – Includes information on age, gender, program and area of specialization, prior knowledge of AI, and internet accessibility.

**Level of Awareness of Generative AI Tools** – Assesses familiarity with AI tools such as ChatGPT, Microsoft Copilot, Gemini, GitHub Copilot, and Claude.

**Extent of Use of Generative AI Tools** – Measures how frequently AI tools are used in lesson planning, classroom-based action research, and electronic portfolios, rated on a five-point Likert scale (1 = Never, 5 = Always).

The instrument underwent validation by a panel of experts involved in teaching internships, educational technology, and research. A pilot test with 30 respondents was conducted to establish reliability, yielding a Cronbach's alpha coefficient of 0.89, indicating high reliability.

### **Data Collection Procedure**

**Preparation** – The survey questionnaire was developed, validated, and approved by the ethics committee.

**Distribution** – The questionnaire was distributed both online and in-person to teaching interns, ensuring voluntary participation and anonymity.

**Collection** – Responses were collected over two weeks and compiled for analysis.

### **Data Analysis**

**Descriptive Statistics** – Frequencies, percentages, means, and standard deviations were used to describe the demographic profile, level of awareness, and extent of AI tool usage.

**Inferential Statistics** – Pearson's correlation was employed to determine the relationship between interns' profiles and their

extent of AI use. ANOVA was used to compare the extent of AI use across different demographic groups.

All statistical analyses were conducted using SPSS software, with a significance level set at 0.05.

**Ethical Considerations**

Informed consent was obtained from all participants, ensuring their right to privacy, confidentiality, and voluntary participation. Ethical clearance was secured from the university’s research ethics board to ensure compliance with ethical standards throughout the study.

**RESULTS AND DISCUSSION**

**Table 1.1: Respondents’ Profile in Terms of Sex**

Sex	Frequency	Percentage
Male	37	22.8
Female	125	77.2
<b>Total</b>	<b>162</b>	<b>100</b>

The data presented regarding the respondents' sex indicates a predominant participation of female individuals in the study, with 77.2% of the total respondents identifying as female (125 participants). In contrast, male participants represented 22.8% (37 respondents) of the total sample. This gender distribution is consistent with patterns seen in other studies examining the perspectives of pre-service teachers or students regarding emerging technologies like generative AI. For instance, research by Thararattanasuwan and Prachagool [10] on teacher students' views toward generative AI technologies noted that female respondents tended to engage more with educational technology tools compared to their male counterparts. Similarly, Baidoo-Anu et al. [11] observed a similar gender imbalance in their exploration of student perspectives on generative AI in higher education, where female students showed higher levels of familiarity and engagement with AI tools like ChatGPT.

This gender distribution might influence the study's findings, as gender can affect how individuals interact with and perceive technology. Studies such as Uygun [6] suggest that educators' perspectives on AI can vary based on factors like gender, with female educators often demonstrating a more positive outlook on AI in educational settings. Therefore, the findings of this study may be indicative of broader trends in how different genders engage with generative AI, with potential implications for designing gender-inclusive educational policies and tools in the future.

**Table 1.2 Profile of the Teaching Interns according to their Program and Area of Specialization**

Program and Area of Specialization	Frequency	Percentage (%)
BSED-English	7	4.3
BSED-Filipino	8	4.9
BSED-Mathematics	6	3.7
BSED-Sciences	20	12.3
BSED-SocStud	23	14.2
BSED-ValEd	1	0.6
BPED	27	16.7
BSNED	9	5.6
BEED	32	19.8
BECED	18	11.1
BTLED-Home Economics	7	4.3

BTLED-ICT	4	2.5
<b>Total</b>	<b>162</b>	<b>100</b>

The respondents in this study are categorized according to their program and area of specialization, with a diverse range of academic backgrounds represented among the teaching interns. The largest group is from the Bachelor of Elementary Education (BEED) program, accounting for 19.8% of the sample (32 respondents). Following this, Bachelor of Physical Education (BPED) interns make up 16.7% (27 respondents). The Bachelor of Secondary Education (BSED) program, which has several specializations, is also well-represented, with significant numbers in BSED-Social Studies (14.2%, 23 respondents), BSED-Science (12.3%, 20 respondents), and BSED-English (4.3%, 7 respondents). Other notable specializations include BSED-Filipino (4.9%, 8 respondents) and BSED-Mathematics (3.7%, 6 respondents). Additionally, the study includes teaching interns from BSED-Values Education (ValEd) (0.6%, 1 respondent), Bachelor of Special Needs Education (BSNED) (5.6%, 9 respondents), and Bachelor of Early Childhood Education (BECED) (11.1%, 18 respondents). Smaller groups include BTLED-Home Economics (4.3%, 7 respondents) and BTLED-ICT (2.5%, 4 respondents).

This wide variety of academic specializations reflects the diverse backgrounds of the interns, which could provide valuable insights into how generative AI tools are perceived across different disciplines. For instance, Geesje van den Berg and Elize du Plessis [1] highlight the role of AI tools, like ChatGPT, in assisting teachers with lesson planning, an area that could vary depending on the subject matter. The different perspectives from interns specializing in subjects like BSED-Social Studies, BSED-Science, or BSED-Mathematics might offer contrasting views on the applicability and utility of AI in their specific teaching contexts [8]. Moreover, the inclusion of different education programs, such as BEED and BPED, allows for a more comprehensive understanding of how generative AI might be integrated across various educational levels and subject areas.

**Table 1.3 Profile of the Teaching Interns according to their Teaching Internship Grade**

Teaching Internship Grade	Frequency	Percentage (%)
96 & above	96	59.3
94	29	17.9
93	14	8.6
92	7	4.3
91	8	4.9
90	2	1.2
89	3	1.9
88	2	1.2
87	1	0.6
<b>Total</b>	<b>162</b>	<b>100</b>

Table 1.3 presents the distribution of teaching interns according to their teaching internship grades, with the majority of respondents achieving grades above 90. Specifically, 59.3% (96 respondents) of the teaching interns scored 96 and above, suggesting that a large portion of the interns performed excellently in their internships.

A significant group, 17.9% (29 respondents), received a grade of 94, while smaller groups earned grades of 93 (8.6%,

14 respondents), 92 (4.3%, 7 respondents), and 91 (4.9%, 8 respondents). Fewer respondents earned grades in the lower ranges, with 1.2% (2 respondents) scoring 90, 1.9% (3 respondents) scoring 89, and 1.2% (2 respondents) scoring 88. Only 0.6% (1 respondent) received a grade of 87.

The distribution of internship grades may be useful in assessing the readiness and competence of the teaching interns, which could influence their perceptions and use of generative AI tools. Higher-performing interns, such as those in the 96 and above category, might be more open to exploring innovative educational tools like ChatGPT for lesson planning or academic research, aligning with findings from Kehoe [7], who notes that generative AI tools are often more readily embraced by those with higher levels of academic performance and technological familiarity. Conversely, the lower-performing interns might experience challenges when integrating such tools into their practice, particularly if they feel less confident in their teaching abilities, as discussed in Uygun [6] and [11], who highlight that students' concerns about reliance on AI tools could affect their attitudes toward adopting these technologies.

The variation in grades could also provide insights into how teaching interns at different performance levels perceive and utilize Generative AI tools like ChatGPT in their academic writing, lesson planning, and classroom management. As Thararattanasuwan and Prachagool [10] suggest, different levels of familiarity with educational technology may result in varying perspectives on AI integration, which could be particularly relevant when evaluating the diverse responses from interns with differing academic performance levels.

**Table 2. Teaching Interns' Level of Awareness of the Commonly Used Generative AI**

Generative AI Tool	Fully Aware	Moderately Aware	Slightly Aware	Not Aware
	f %	f %	f %	f %
ChatGPT	87 53.7	52 32.1	20 12.3	3 1.9
Microsoft Copilot	10 6.2	23 14.2	50 30.9	79 48.8
Gemini	8 4.9	16 9.9	48 29.6	90 55.6
GitHub Copilot	1 0.6	5 3.1	35 21.6	121 74.7
Claude	1 0.6	4 2.5	33 20.4	124 76.5

The data on the teaching interns' level of awareness of commonly used Generative AI tools shows varying levels of familiarity across different platforms. ChatGPT stands out as the most recognized tool, with 53.7% of the respondents being fully aware, 32.1% being moderately aware, and only 12.3% being slightly aware. A very small proportion, 1.9%, reported being not aware of ChatGPT. This high level of awareness is likely attributed to ChatGPT's widespread use in educational contexts, particularly in tasks such as lesson planning, research assistance, and academic writing, as discussed in recent studies [1].

In contrast, Microsoft Copilot shows lower awareness, with only 6.2% of respondents being fully aware and 14.2% moderately aware. A significant portion, 30.9%, is only slightly aware, while 48.8% are not aware. This suggests that despite its utility in productivity tools, Microsoft Copilot has not yet gained as much traction in educational settings compared to ChatGPT, which might be due to its more general focus rather than an educational one [12]. Similarly, Gemini has a relatively lower awareness, with 4.9% fully aware, 9.9% moderately aware, and a large portion, 55.6%, being not aware. The relatively new status of Gemini in the Generative AI landscape may explain this lower recognition [8].

The least recognized tools in this study are GitHub Copilot and Claude. Only 0.6% of interns are fully aware of GitHub Copilot, and 3.1% are moderately aware, while a significant 74.7% are not aware of it. This is likely due to the tool's primary focus on coding assistance, which is not directly applicable to most teaching interns, particularly those in non-technical fields [9]. Similarly, Claude shows 76.5% of respondents being not aware, with only 0.6% fully aware. Given that Claude is a relatively newer entrant in the AI space, it is not yet widely recognized among the interns [8].

In summary, the findings indicate that ChatGPT is by far the most familiar and widely recognized Generative AI tool among teaching interns. This could be due to its direct applications in lesson planning and academic research, as highlighted in studies exploring AI's impact on education [2]. However, the low awareness of other tools such as Microsoft Copilot, GitHub Copilot, Gemini, and Claude points to the need for greater exposure to these technologies. As Kehoe [7] suggests, enhancing training programs and integrating Generative AI tools into the curriculum can improve awareness and enable better use of these tools in educational practice.

**Table 3.1 Teaching Interns' Extent of Use of Generative AI in the Making of Lesson Plan**

Lesson Plan	Weighted Mean	Verbal Description
1. formulate specific, measurable, achievable, relevant, and time-bound (SMART) objectives based on the content standards for: 1.1 cognitive; 1.2 psychomotor; and 1.3 effective	2.01 2.09 2.09	Rarely Rarely Rarely
2. identify ways to incorporate cross-disciplinary connections of lesson contents with other subject areas;	2.22	Rarely
3. integrate learning resources such as: 3.1 educational games; 3.2 videos; 3.3 stories; 3.4 worksheets; and 3.5 interactive activities	2.60 2.31 2.35 2.08 2.52	Rarely Rarely Rarely Rarely Rarely
4. design engaging and interactive activities that align with lesson objectives in: 4.1 review; 4.2 motivation;	2.20 2.31	Rarely Rarely

4.3 discussion proper; and	2.15	Rarely
4.4 generalization	2.13	Rarely
5. generate creative and diverse in-class exercises including:	2.18	Rarely
5.1 individual;		
5.2 pair; and	2.12	Rarely
5.3 group work tasks	2.25	Rarely
6. develop differentiated instruction strategies tailored to learners' learning levels, interests, and needs that enhance learner engagement and motivation during the lesson;	2.26	Rarely
7. create assessment tools that are aligned with the learning outcomes such as:	2.09	Rarely
7.1 quizzes;		
7.2 tests; and	2.06	Rarely
7.3 open-ended questions	2.22	Rarely
8. create assignments that enhance mastery of content;	2.14	Rarely
9. ensure that each part of the lesson plan is free of errors and well-organized; and	2.41	Rarely
10. plan a logically structured lesson to ensure that there is a connection in each part of the lesson	2.26	Rarely
<b>OVERALL</b>	<b>2.22</b>	<b>Rarely</b>

The data from Table 3.1 illustrates the teaching interns' extent of use of Generative AI in the creation of their lesson plans. Across various aspects of lesson plan development, the use of Generative AI is generally rated as "rarely" by most interns, as indicated by the weighted mean values, all of which fall below 2.5. This suggests that while Generative AI is somewhat utilized, it is not a predominant tool in the lesson-planning process.

For instance, when asked about the use of Generative AI to formulate SMART objectives (specific, measurable, achievable, relevant, and time-bound), the weighted mean for cognitive objectives is 2.01, psychomotor objectives is 2.09, and affective objectives is 2.09. These values reflect that the interns rarely use Generative AI for these tasks, with many indicating that they only sometimes or occasionally use AI tools for creating these objectives [6]. This trend continues for other components, such as incorporating cross-disciplinary connections, where the weighted mean is 2.22, indicating minimal use.

Similarly, in integrating various learning resources, such as educational games, videos, stories, and worksheets, the weighted means are still low, all clustering around 2.2 to 2.6, which suggests that while there is some integration of Generative AI, it is not yet a frequent practice [8]. This aligns with the findings from studies that suggest Generative AI is underutilized in educational settings, particularly in more traditional fields like lesson planning [7].

When asked about the design of engaging and interactive activities, the use of Generative AI again received low usage scores, with weighted means between 2.13 and 2.31. Similarly, the creation of assessment tools (quizzes, tests, open-ended questions) and the development of differentiated instruction strategies also received low ratings, with weighted means between 2.06 and 2.26 [1]. This may point to a general

hesitation or lack of confidence in using AI tools for these more critical and personalized elements of teaching.

Finally, when evaluating whether Generative AI is used to ensure that the lesson plan is well-organized and free of errors, the weighted mean is 2.41, suggesting that while Generative AI is occasionally used for organizing lesson content, it is not a consistent or central feature in the lesson planning process for the teaching interns. This finding underscores the early stage of AI integration in teaching practice, with many interns still developing comfort and familiarity with these tools [12].

In summary, the data reveals that while teaching interns recognize the potential of Generative AI, its practical application in lesson planning is still limited. Interns tend to use Generative AI for specific tasks but not consistently across all aspects of lesson creation, a trend observed in other studies on AI in education [2].

**Table 3.2 Teaching Interns' Extent of Use of Generative AI in the Making of Classroom-Based Action Research**

Classroom-Based Action Research	Weighted Mean	Verbal Description
1. create well-defined classroom-based action research titles and problems;	2.08	Rarely
2. narrow down a broad topic into a specific research problem;	2.17	Rarely
3. ensure that the research problem is original and contributes to the existing body of knowledge;	2.23	Rarely
4. organize the information I gathered for my research to construct a coherent and compelling introduction;	2.24	Rarely
5. determine the action research variables;	2.04	Rarely
6. generate null and alternative hypotheses from the title or research questions;	2.01	Rarely
7. find specific strategies to employ in implementing the action research in the classroom;	2.22	Rarely
8. determine the types of data to be collected;	2.07	Rarely
9. design data collection tools/instruments such as:	1.91	Rarely
9.1 surveys;		
9.2 interviews; and	1.93	Rarely
9.3 observations	1.92	Rarely
10. organize the data collected using tables and graphs;	1.92	Rarely
11. determine the appropriate statistical tool to analyze the data collected;	2.05	Rarely
12. interpret the results;	2.00	Rarely
13. make conclusions;	2.02	Rarely
14. formulate recommendations;	2.05	Rarely
15. determine the relevance of the research problem; and	2.06	Rarely
16. provide a template that I can follow to ensure ethical considerations are observed during the classroom-based action research.	2.13	Rarely
<b>OVERALL</b>	<b>2.06</b>	<b>Rarely</b>

As AI tools continue to evolve, further training and integration into the teacher preparation curriculum might increase their use and effectiveness in enhancing lesson

planning and overall teaching quality. The data presented in the table reflects the teaching interns' extent of using Generative AI in their classroom-based action research. The overall weighted mean of 2.06, which is categorized as "rarely", indicates that although Generative AI is utilized in the research process, it is not a frequent or primary tool. The use of AI in specific tasks of the research process is similarly low, with all weighted mean values falling in the "rarely" range, which suggests that AI's role is relatively limited in action research.

For instance, when it comes to creating a well-defined research title and problem, the weighted mean is 2.08, suggesting that interns rarely use AI for this aspect. Similarly, narrowing down a broad topic into a specific research problem (mean 2.17) and ensuring the research problem is original (mean 2.23) are tasks where AI tools are infrequently used, according to the respondents' perceptions [6].

Interns also report limited use of Generative AI in organizing the research introduction (mean 2.24), determining research variables (mean 2.04), and generating hypotheses (mean 2.01), all indicating minimal reliance on AI for the foundational stages of the action research process. This reflects a broader trend seen in studies of AI in education, where generative tools, despite their potential, are not yet widely integrated in all stages of academic research [8]; [7].

Furthermore, when it comes to designing research instruments such as surveys, interviews, or observations, the weighted means range from 1.91 to 1.93, again reflecting that AI is rarely used in these critical aspects of data collection. Interns report similar low usage when organizing collected data using tables and graphs (mean 1.92) or determining appropriate statistical tools for data analysis (mean 2.05). These tasks typically require a higher level of expertise and critical thinking, and the limited use of AI suggests that interns may still prefer manual or traditional methods over AI-generated support for these aspects of the research process [2].

In terms of interpreting research results (mean 2.00) and making conclusions and recommendations (means 2.02 and 2.05, respectively), the low use of Generative AI further supports the conclusion that AI's role in assisting with more nuanced aspects of academic writing and analysis is still developing. This finding is consistent with research suggesting that although AI has potential, its use in the final stages of research, such as interpretation and conclusions, requires more familiarity and comfort from users [1].

Overall, these findings indicate that while Generative AI is acknowledged by teaching interns as a useful tool, its integration into classroom-based action research remains limited. This aligns with broader trends in education where AI tools are being explored but have yet to be widely adopted or deeply integrated into critical academic tasks [12]. Future training and development in the use of Generative AI for research purposes may help improve its application, particularly in tasks requiring creativity, critical thinking, and analysis.

**Table 3.3 Teaching Interns' Extent of Use of Generative AI in the Making of Electronic Portfolio**

<b>Electronic Portfolio</b>	<b>Weighted Mean</b>	<b>Verbal Description</b>
1. generate a template to help me organize its contents;	2.33	Rarely
2. make a concise yet captivating introduction;	2.30	Rarely
3. put together ideas so I can craft my teaching philosophy as a teaching intern;	2.21	Rarely
4. provide a template for my Curriculum Vitae;	2.02	Rarely
5. create summaries of the various journals/articles required for reading;	2.30	Rarely
6. help find the right/appropriate vocabulary to present my thoughts;	2.53	Rarely
7. produce words that I can substitute for terms that I commonly use in crafting my ideas to avoid monotony;	2.51	Rarely
8. organize my daily experiences into brief entries for my electronic journal;	2.19	Rarely
9. summarize my field experiences and reflections on the different domains of the Philippine Professional Standards for Teachers (PPST); and	2.20	Rarely
10. suggest appropriate captions for the evidence I include for the various PPST domains	2.14	Rarely
<b>OVERALL</b>	<b>2.27</b>	<b>Rarely</b>

The data presented in the table on the use of Generative AI in the creation of electronic portfolios by teaching interns shows that AI is rarely used for most tasks, as indicated by the overall weighted mean of 2.27. This suggests that while AI is acknowledged as a tool for organizing and presenting materials, it is not frequently utilized in the portfolio development process.

For example, the task of generating a template to organize the portfolio's contents has a weighted mean of 2.33, indicating that Generative AI is rarely used for this purpose. Similarly, other organizational tasks such as creating a concise introduction (mean 2.30) or putting together ideas for the teaching philosophy (mean 2.21) also fall into the "rarely" category, implying that interns prefer to create these sections on their own rather than relying on AI [3].

Interns also report limited use of AI for more specific tasks, such as providing a template for their Curriculum Vitae (mean 2.02) or creating summaries of journals and articles (mean 2.30). These tasks require attention to detail and personalized input, which may explain why AI is not often used in generating these items. Additionally, tasks like helping to find appropriate vocabulary (mean 2.53) or suggesting words to avoid repetition (mean 2.51) also receive low ratings, reflecting the limited role of AI in enhancing the textual variety of interns' portfolios [1].

In terms of organizing and summarizing personal reflections, such as in an electronic journal (mean 2.19) or summarizing field experiences and reflections on the Philippine Professional Standards for Teachers (mean 2.20), AI is once

again reported to be used rarely. This suggests that despite the potential for AI to assist in structuring and summarizing content, interns still largely rely on their judgment and experience to create these reflective pieces.

Finally, suggesting appropriate captions for evidence in the portfolio, particularly for the PPST domains (mean 2.14), is also a task where AI is rarely used. This task likely requires a level of contextual understanding and personalization that interns may feel is beyond the capabilities of current AI tools [2].

Overall, while Generative AI holds the potential for assisting in various aspects of electronic portfolio creation, its current use by teaching interns is limited, reflecting a cautious and selective approach to adopting AI in these personal and reflective tasks. This aligns with findings across educational contexts, where AI tools are seen as supportive but not essential for more individualized, reflective, or professional documentation processes [7].

**4.1 Relationship Between the Teaching Interns’ Profile and Extent of Use of Generative AI in terms of Lesson Plan**

Lesson Plan	Correlation Value	p-value	Decision	Interpretation
Extent vs Sex	-0.036	0.653	Fail to reject the null hypothesis	Non-Significant
Extent vs Program and area of specialization	0.156	0.048	Reject the null hypothesis	Significant
Extent vs Grades	-0.058	0.462	Fail to reject the null hypothesis	Non-Significant

The relationship between teaching interns' profiles and the extent of their use of Generative AI in lesson planning reveals some notable findings. Specifically, the analysis of sex (gender) and Generative AI usage showed no significant relationship. The Point Biserial correlation of -0.036 and a p-value of 0.653 suggest that gender does not significantly influence the extent to which teaching interns use Generative AI in lesson planning. This aligns with studies that emphasize how Generative AI tools, such as ChatGPT, are becoming more widely accessible and adaptable, irrespective of gender, in the context of teacher education and lesson planning [1, 2]. On the other hand, the relationship between teaching interns' program and area of specialization and the extent of their AI usage in lesson planning was found to be significant, with a Spearman correlation of 0.156 and a p-value of 0.048. This result suggests that the academic program and specialization of interns play a role in determining how frequently they use Generative AI for lesson planning. Programs in fields that are more technologically focused, or those where the integration of AI is a key component, may encourage higher usage of AI tools [7]; [3]. This is supported by research that highlights how certain educational programs are more likely to embrace the use of Generative AI in lesson design and other classroom tasks, as part of the evolving landscape of teacher education [4].

Finally, the analysis revealed no significant correlation between teaching interns' grades and their use of Generative AI in lesson planning, with a Point Biserial correlation of -0.058 and a p-value of 0.462. This suggests that academic performance does not appear to influence the extent of AI usage. This finding may be reflective of the broader trend of Generative AI tools being seen as supplementary aids rather than replacements for traditional academic competencies in lesson planning and research [8]; [2].

In conclusion, the extent to which teaching interns use Generative AI in lesson planning is significantly influenced by their program and area of specialization, while gender and academic performance do not seem to be strong factors. The findings suggest that integrating AI tools into teacher education may require a more nuanced approach, one that considers the specific needs and goals of different academic disciplines and programs [7, 1].

**4.2 Relationship Between the Teaching Interns’ Profile and Extent of Use of Generative AI in terms of Classroom-Based Action Research**

CBAR	Correlation Value	p-value	Decision	Interpretation
Extent vs Sex	-0.074	0.346	Fail to reject the null hypothesis	Non-Significant
Extent vs Program and area of specialization	0.090	0.254	Fail to reject the null hypothesis	Non-Significant
Extent vs Grades	-0.051	0.518	Fail to reject the null hypothesis	Non-Significant

The relationship between teaching interns' profiles and the extent of their use of Generative AI in classroom-based action research (CBAR) did not reveal significant correlations across the variables analyzed. Specifically, the Point Biserial correlation for sex (gender) was -0.074, with a p-value of 0.346, indicating that gender does not significantly affect the use of Generative AI in CBAR. This finding aligns with studies that show gender does not influence the adoption of AI tools in educational contexts, as these tools are increasingly perceived as accessible to all teaching interns regardless of gender [1].

Similarly, there was no significant relationship between teaching interns' program and area of specialization and their use of Generative AI in CBAR. The correlation value of 0.090 and p-value of 0.254 indicate that the academic program or area of specialization does not have a significant impact on the extent of AI use. This finding contrasts with those observed in lesson planning, where specific programs or specializations showed a more significant relationship with AI tool usage [7]. The non-significant result here suggests that interns from diverse academic backgrounds might utilize Generative AI similarly for action research tasks, or it could reflect a more general lack of emphasis on AI integration within



action research methodologies in certain educational programs.

Lastly, the relationship between teaching interns' grades and their use of Generative AI in CBAR was also found to be non-significant, with a correlation value of -0.051 and a p-value of 0.518. This indicates that academic performance, as reflected by grades, does not appear to influence the extent of Generative AI usage in CBAR. This finding further supports the notion that the adoption of AI tools in education may be more closely tied to specific educational practices or programs, rather than individual academic performance [2]; [8].

In conclusion, the use of Generative AI in classroom-based action research by teaching interns does not show significant relationships with gender, program/specialization, or academic performance. These results suggest that, while AI tools are increasingly available and may offer valuable support in action research, factors like teaching specialization or personal academic achievements do not substantially influence their usage. This highlights the need for further exploration into how Generative AI can be integrated into action research practices, with an emphasis on training and support tailored to specific educational contexts and needs [4].

**4.3 Relationship Between the Teaching Interns' Profile and Extent of Use of Generative AI in terms of E-Portfolio**

E-Portfolio	Point Biserial (Pearson)	p-value	Decision	Interpretation
<b>Extent vs Sex</b>	0.00	0.995	Fail to reject the null hypothesis	Non-Significant
<b>Extent vs Program and area of specialization</b>	0.126	0.111	Fail to reject the null hypothesis	Non-Significant
<b>Extent vs Grades</b>	-0.174	0.026	Reject the null hypothesis	Significant

The analysis of the relationship between teaching interns' profiles and their use of Generative AI in creating an e-portfolio revealed some interesting findings. Firstly, the Point Biserial correlation for sex (gender) was 0.00, with a p-value of 0.995, indicating that gender has no significant impact on the extent to which teaching interns use Generative AI in developing their e-portfolios. This aligns with findings from other studies, which suggest that AI tools are widely accessible across genders and do not show a gender bias in terms of usage [7].

Similarly, the relationship between program and area of specialization and the extent of AI use for e-portfolio development was also found to be non-significant. With a correlation value of 0.126 and a p-value of 0.111, it was concluded that the specific academic program or area of specialization does not significantly influence the use of Generative AI in this context. This finding is consistent with other research, which suggests that AI tools can be

universally applicable across different teaching programs, especially when the focus is on creating digital artefacts like e-portfolios, where the use of templates, summaries, and reflective practices may be common across various disciplines [1].

However, a significant relationship was observed between grades and the use of Generative AI in creating e-portfolios. The correlation value was -0.174, with a p-value of 0.026, which led to the rejection of the null hypothesis, indicating a significant negative relationship. This suggests that teaching interns with higher grades might use Generative AI less frequently in their e-portfolio creation, or conversely, those with lower grades might be more inclined to use AI tools. This result could reflect different levels of confidence, familiarity, or reliance on technology based on academic performance. It might be that higher-performing students feel less need for AI assistance in portfolio creation, as they may already possess the skills and confidence required for crafting effective portfolios [8, 2].

In conclusion, while gender and program specialization did not show significant effects on the use of Generative AI in e-portfolio development, academic performance, as indicated by grades, had a significant negative correlation. This finding warrants further investigation to understand the underlying factors that contribute to different levels of AI usage based on academic performance and how this might influence the development of digital portfolios in teacher education.

**CONCLUSIONS**

The findings from the analysis of the relationship between teaching interns' profiles and their use of Generative AI in lesson planning, classroom-based action research (CBAR), and e-portfolio creation present a nuanced understanding of the factors that influence AI usage in teacher education contexts.

For lesson planning, the significant relationship between program and area of specialization and the use of Generative AI suggests that specific fields of study may play a role in how teaching interns incorporate AI tools into lesson planning. However, the lack of significant correlation with other demographic factors such as sex and grades highlights that these personal characteristics might not significantly influence the extent to which AI tools are utilized in lesson design. This finding supports previous research that suggests Generative AI can serve as a universal tool for educators across different disciplines, providing support in content creation and pedagogical planning [1].

In the case of classroom-based action research (CBAR), no significant correlations were found between the use of AI and variables such as sex, program specialization, or grades. This suggests that the use of Generative AI in action research processes might not be strongly influenced by these factors. It is possible that, regardless of academic background or demographic characteristics, the research process itself may not require AI tools to the same extent as lesson planning or portfolio creation. However, further research could explore whether more specific aspects of action research (e.g., data analysis or hypothesis generation) could benefit from AI integration in the future [1].

The analysis of e-portfolio creation yielded a significant relationship between grades and the extent of Generative AI usage. Interns with higher academic performance were less likely to rely on AI for e-portfolio creation, potentially reflecting greater confidence and skill in organizing and presenting their work. On the other hand, those with lower grades may feel the need for additional support, making AI tools an appealing option for crafting reflective journals, teaching philosophies, and curriculum vitae [8]. However, no significant relationship was found between the interns' sex or program specialization and their use of AI for e-portfolios. This suggests that Generative AI tools might serve as an accessible resource for all interns, regardless of their academic discipline or gender [7].

In conclusion, while some demographic and academic factors, particularly grades, influence the extent of Generative AI usage in specific educational tasks like e-portfolio creation, the overall results suggest that Generative AI has potential for widespread use across various aspects of teacher education. Teaching interns are using AI tools primarily for tasks that benefit from structured support, such as lesson planning and e-portfolio creation, but may not feel the need to rely on AI for more traditional research tasks. As the role of Generative AI continues to evolve in education, further research should focus on optimizing its integration into classroom-based action research and explore the underlying reasons for the varying degrees of AI adoption across different academic backgrounds.

## RECOMMENDATIONS

Based on the findings, the following recommendations are proposed to enhance the integration of Generative AI tools in teacher education, particularly for lesson planning, classroom-based action research (CBAR), and e-portfolio creation:

### Enhance AI Training for Teaching Interns

Given the varied use of Generative AI tools across different tasks, it is recommended that teacher education programs provide targeted training sessions for interns. These training sessions should focus on how to effectively integrate AI in lesson planning, classroom-based action research, and e-portfolio creation. Emphasis should be placed on AI's potential to support creativity, reduce administrative workload, and enhance critical thinking skills in lesson design [1]. Practical workshops, case studies, and demonstrations can help interns become more comfortable and confident in using AI tools.

### Leverage AI for Personalized Learning Experiences

Since interns with different academic backgrounds (e.g., varying grades) use Generative AI tools to different extents, there is an opportunity to tailor AI tool usage to the individual needs of each intern. For instance, those with lower grades might benefit from additional AI-driven scaffolding for tasks like creating teaching philosophies or summarizing field experiences. In contrast, higher-performing interns may be encouraged to use AI for more advanced tasks, such as refining research methodologies or exploring new teaching strategies [8]. By offering

personalized AI support, teacher education programs can foster greater independence and competence among interns.

### Promote AI for Classroom-Based Action Research (CBAR)

Although Generative AI usage in CBAR showed no significant correlation with teaching interns' profiles, there is considerable potential for AI tools to assist in various stages of action research, such as data collection, hypothesis generation, and analysis [7]. It is recommended that AI tools be more explicitly integrated into action research methodologies, with a focus on how AI can aid in literature reviews, data visualization, and the formulation of research questions. This could help interns navigate the often complex and time-consuming processes involved in conducting action research.

### Encourage Critical Evaluation of AI-Generated Content

While Generative AI can provide valuable templates, summaries, and suggestions, teaching interns should be trained to critically evaluate AI-generated content. This includes verifying the accuracy, relevance, and pedagogical appropriateness of the materials AI provides. Interns should be encouraged to treat AI as an assistant rather than a replacement for their judgment and creativity. This would help mitigate risks of over-reliance on AI, ensuring that it remains a tool for enhancing the teaching process rather than substituting the core educational expertise and decision-making skills of the intern [3].

### Foster Collaboration Between AI and Traditional Pedagogical Practices

The relationship between Generative AI usage and teaching interns' academic profiles suggests that AI adoption may not be universal across all tasks, particularly in classroom-based action research. Therefore, programs should emphasize the collaborative potential of AI, encouraging interns to combine AI-generated outputs with traditional pedagogical approaches. For instance, AI can be used to generate lesson plan structures, but interns should be encouraged to incorporate their unique insights and local context into the final plan. Similarly, in e-portfolio creation, AI can help interns organize their reflections, but the final product should remain a personal and authentic representation of their growth as educators [8].

### Integrate AI Ethics in Teacher Education Curriculum

With the increasing reliance on AI tools in education, AI ethics must be integrated into the teacher education curriculum. Interns must be made aware of the ethical implications of using AI, particularly regarding issues such as data privacy, biases in AI-generated content, and the role of AI in decision-making processes [1]. Incorporating ethical discussions around AI will help interns develop a responsible approach to using AI in their professional practice, ensuring that they use AI tools in ways that align with the values and ethical standards of the teaching profession.

### Continuous Evaluation of AI Tools' Effectiveness

Finally, it is important to regularly evaluate the effectiveness of Generative AI tools in teacher education. Research should be conducted to assess the long-term impact of AI use on teaching interns' learning outcomes, teaching practices, and confidence. Feedback from interns on their experiences with AI tools should be collected and used to improve AI tool

recommendations, instructional design, and training materials. Ongoing evaluations will help optimize AI integration and ensure that it continues to meet the needs of diverse teaching interns across various educational contexts. By implementing these recommendations, teacher education programs can better equip teaching interns with the necessary skills and tools to harness the power of Generative AI responsibly and effectively.

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