

RESEARCH ARTICLE

Forced mindset shift and the non-negotiables on the use of AI: Comparative perspectives from public administration, general education, mathematics, and language instructors

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ABSTRACT

This study explores the comparative perspectives of instructors in public administration, general education mathematics, and language education on the forced shift in mindset and non-negotiables surrounding AI integration in their fields. The research aims to compare how these instructors perceived AI's role in education before its widespread adoption and how their views and teaching practices have evolved in response. Through a qualitative design in an exploratory approach utilizing semi-structured interviews with educators in Zamboanga Peninsula, Philippines, the study reveals that while the acceptance of AI has grown, certain non-negotiable teaching practices remain firmly upheld. These practices reflect the educators' core beliefs about the irreplaceable human elements in teaching, despite the increasing reliance on AI. The findings provide a nuanced understanding of the balance between embracing AI advancements and maintaining educational values across different academic disciplines.

Keywords: forced mindset shift; non-negotiables; AI (Artificial Intelligence); comparative perspectives; public administration; general education mathematics; language instructors

1. Introduction

In an era marked by rapid technological progress, education has undergone a significant transformation due to the influence of Artificial Intelligence (AI)^[1]. AI development has advanced remarkably in recent years, introducing innovative generative AI (GenAI) technologies like ChatGPT, which have begun to reshape education at all levels^[2]. These GenAI technologies, along with those anticipated to follow, are poised to disrupt the educational landscape profoundly. While AI has been a part of education for the past four decades, the recent Global Education Monitoring Report highlights that GenAI is the latest technology with the potential to revolutionize the field^[3]. The integration of such advanced AI tools into educational processes necessitates a thorough understanding of their implications and potential outcomes.

AI, though not a new concept in education, has gained unprecedented visibility with the emergence of

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GenAI technologies like ChatGPT^[4-6]. This heightened visibility has sparked debate among educators and researchers about whether AI will accelerate changes in education. While some advocate for the transformative potential of AI, others urge caution, emphasizing the need to consider both the advantages and disadvantages of AI's educational applications^[7]. Furthermore, Chen et al.^[8] highlight that ChatGPT has played a significant role in bringing AI to the forefront of educational discussions, further intensifying these debates. Additionally, concerns have been raised about the potential adverse effects of AI on individual subjective well-being, as highlighted by Zhao et al.^[9]. These diverse perspectives underscore the need for a balanced approach in integrating AI into education, taking into account its benefits and potential drawbacks.

The rapid adoption of AI in education brings to the forefront the importance of transparency in decision-making processes within AI systems, particularly regarding the ethical issues surrounding the extensive collection of students' data^[10]. As AI techniques become more integrated into educational processes, it is crucial to investigate the digital divide, social inclusion, and the risks associated with these innovations. Gentile et al.^[11] argue that addressing these challenges requires new approaches that leverage technology to create more equitable educational opportunities. By examining these issues, educators and policymakers can develop strategies that maximize the benefits of AI while mitigating its risks.

As AI continues to revolutionize teaching and learning, understanding educators' perspectives on its role in education is essential. According to Alam^[12], educators play a pivotal role in shaping the educational landscape for future generations, making their viewpoints on AI integration crucial. Educators' insights can provide valuable guidance on how AI can be effectively implemented in classrooms to enhance learning outcomes. By involving educators in the discussion, the educational community can ensure that AI technologies are used in ways that align with pedagogical goals and ethical standards. With increased access to information for learners, learning environments should foster a setting where both teachers and students can pursue knowledge collaboratively^[13].

Traditional educational models often position teachers as authoritative figures within a hierarchical relationship with students, where knowledge transfer occurs in a non-participatory and non-interactive manner^[14]. This approach can lead to the standardization of education, which may undermine its effectiveness by neglecting the individual needs and peculiarities of students. Li^[15] points out that such a relationship may hinder collaboration between teachers and students, potentially leading to negative outcomes like absenteeism and dropout. As AI continues to evolve, it is essential to re-evaluate these traditional models and explore how AI can be leveraged to create more inclusive and effective educational environments.

This study seeks to explore and compare the perspectives of educators and professionals across various disciplines on the integration of AI technologies. By examining how AI influences teaching methods and professional practices in fields such as public administration, general education, mathematics, and language instruction, this research aims to uncover the challenges, non-negotiables, and necessary mindset shifts required for the effective and ethical use of AI. The insights gained will contribute to a deeper understanding of AI's implications across these fields, guiding future policies and practices to enhance the integration of AI while safeguarding essential educational and professional standards.

2. Literature

Artificial intelligence (AI) is revolutionizing educational instruction and enhancing students' learning capabilities. AI systems have the ability to adapt to the unique learning needs of each student. By assessing students' progress, performance, and preferences, AI can offer customized content, suggest supplementary

resources, and deliver personalized feedback^[16]. Generative artificial intelligence (AI) has existed for some time, yet it has recently garnered significant attention and sparked debate^[17]. The incorporation of AI in teaching and learning has been explored; however, the effective integration of new instructional technology is highly dependent on the attitudes of educators who facilitate the lessons. Research on teachers' views regarding AI usage is limited due to a general lack of understanding about how AI can be utilized in educational settings and insufficient knowledge of the nature of AI-embedded tools^[18]. This suggests a gap in research that needs to be addressed to better support educators in adopting AI technologies.

In an era characterized by the rapid advancement of AI, it is crucial that scientific progress in this domain is paralleled by advancements in public administration^[19]. Xu et al.^[20] define AI as the simulation of human intelligence within specific systems or machines, with the goal of replicating human thought processes and behaviors. This broad definition encompasses various subfields of AI, as identified by Vijayakumar and Sheshadri^[21], including expert systems, natural language processing, pattern recognition, robotics, and machine learning. Language fluency enabled the students to articulate their thoughts clearly and concisely^[22]. These subareas demonstrate the diverse applications of AI across different sectors, emphasizing the importance of understanding AI's role and potential in various fields.

AI chat models have gained popularity among students due to their accessibility and convenience. These models are designed to respond to context-specific prompts across various fields and disciplines. In education, AI has provided opportunities for students to use chat models to support their academic tasks^[23]. Research by Kuka et al.^[24] provides a comprehensive overview of where and how AI is being utilized in higher education learning and teaching processes. Their scoping review offers insights into the various applications of AI and its potential to enhance educational practices. Similarly, Lamas and Arnab^[25] explore the ethical implications of AI in education, discussing how these technologies can support the role of teachers and improve teaching and learning practices. These studies highlight the growing influence of AI in education and the need for ongoing research to explore its potential fully.

Generative artificial intelligence (GenAI) has the capability to produce academic content that rivals human authorship, raising concerns about its potential misuse in educational contexts^[26]. Although the impact of GenAI has been largely positive, significant concerns remain within the education sector, particularly regarding academic integrity and the risks of plagiarism^[27-30]. This highlights the need for robust measures to safeguard the integrity of academic work and ensure that AI tools are used responsibly.

Wirtz et al.^[31] proposed a comprehensive AI governance framework that considers the challenges posed by AI, existing regulations, and public administration. Their work underscores the importance of incorporating the perspectives of all stakeholders when weighing the risks and benefits of AI regulation to achieve the best outcomes for society. Building on this research, Wirtz and Müller^[32] examined the development of smart city models and the technological interactions among stakeholders, as well as the use of these technologies. Their findings suggest that effective AI governance requires ongoing evaluation and adaptation to address emerging challenges in the context of technological advancements.

Learning mathematics has traditionally posed significant challenges for many students. The development of computer technologies, particularly AI, presents an opportunity to address these challenges by diagnosing individual learning difficulties and providing personalized support to enhance students' performance in mathematics courses. Despite these advancements, there remains a lack of comprehensive reviews from various perspectives to assist researchers, especially novices, in gaining a holistic understanding of AI's role in mathematics education^[33]. This indicates a need for more inclusive research that can guide educators and policymakers in effectively implementing AI in educational practices.

According to Chong et al.,^[34] observed that “teachers rarely integrate AI educational tools, and little is known about their perceptions of AI tools.” Additionally, there is limited understanding of how students and teachers utilize AI systems and the ways in which AI can be integrated into educational institutions such as schools and colleges^[35]. Given the critical role that future educators will play in implementing AI tools and influencing successive generations of students, it is vital to comprehend their perceptions of AI and the factors that shape their intentions to use this technology. Current research adds to the existing literature by identifying and testing key factors that affect the adoption of AI in education^[36]. This contributes to a broader understanding of the challenges and opportunities associated with integrating AI in educational settings.

3. Methodology

3.1. Research design

This study employed a qualitative exploratory design, which was deemed appropriate for obtaining an in-depth understanding of the perspectives and experiences of college instructors in public administration, general education mathematics, and language education regarding the forced mindset shift and non-negotiables associated with AI integration in their fields. The qualitative approach allowed for a more nuanced exploration of the instructors’ views, enabling the study to capture the complexities and subtleties of their experiences and the evolving role of AI in education^[37].

3.2. Population and sampling

The population of this study consisted of college instructors from various universities in Zamboanga Peninsula, Philippines, who teach in the fields of public administration, general education mathematics, and language education. The study employed purposive sampling, a method commonly used in qualitative research to identify individuals who can provide specific information relevant to the research question^[38]. This sampling technique was chosen to ensure that participants had significant experience with AI integration in their respective fields. A total of 12 instructors were selected based on their expertise and willingness to participate in the study. The participants were informed about the study’s objectives and title, and their approval was obtained prior to the interviews. As shown in **Table 1**, the study included 40 participants from various field.

Table 1. Participants count by field

| Participants | N |
|--|----|
| Public Administration, General Education Mathematics, Language Instructors | 40 |

3.3. Instrument

The primary data collection instrument for this study was a semi-structured interview guide, designed to elicit detailed responses from participants regarding their experiences and perspectives on AI integration. The interview guide included open-ended questions that focused on the instructors’ initial perceptions of AI, the challenges they faced during the forced shift in mindset, and the non-negotiable teaching practices they maintained despite the increasing reliance on AI. **Table 2** presents a summary of the key interview questions and themes explored during the interviews. The interview questions were designed to be flexible, allowing for follow-up questions to explore participants’ responses in greater depth^[39].

Table 2. Interview guide questions.

| Objectives | Interview questions |
|--|--|
| Compare the shift in mindsets of instructors in public administration, general education mathematics, and language | 1. How did you perceive the role of AI in education before it became widely prevalent in your field? |

| | |
|---|---|
| education before and after the prevalence of AI. | 2. Can you describe any changes in your teaching practices in your area of specialization? |
| Determine the non-negotiable beliefs of public administration, general education mathematics, and language education instructors regarding the use of AI. | 3. What were your initial concerns or expectations about using AI in your teaching, and how have those views evolved over time? |
| | 4. What teaching practices do you believe should not be compromised, even with the integration of AI? |
| | 5. Can you identify any specific aspects of AI that you find compatible with your educational values? |
| | 6. Are there any non-negotiable teaching practices you insist on maintaining despite the prevalent use of AI? |

Table 2. (Continued).

3.4. Data gathering procedure

The data gathering process involved distributing self-administered, semi-structured questionnaires to the selected instructors between September 7 to 9, 2024. Prior to sending out the questionnaires, participants were provided with the study’s title and objectives, and their consent was obtained. Efforts were made to ensure that all participants fully understood the research objectives and felt comfortable sharing their experiences^[39]. Participants completed the questionnaires at their own pace, providing written responses that captured their perspectives and insights.

3.5. Data analysis

The data collected from the self-administered questionnaires were analyzed using thematic analysis. The written responses were carefully reviewed and coded to identify recurring themes and patterns in the participants’ perspectives. These themes were then examined and refined to ensure they accurately represented the data and provided meaningful insights into the instructors’ views on AI integration. The analysis focused on comparing perspectives across the three academic disciplines, highlighting both the commonalities and the unique challenges faced by instructors in each field.

4. Results

Objective 1. Compare the shift in mindsets of instructors in public administration, general education mathematics, and language education before and after the prevalence of AI.

1. How did you perceive the role of AI in education before it became widely prevalent in your field?

1.1 AI as a Supplementary Tool

Before AI became widely prevalent in education, Thirty-two (32) participants primarily viewed it as a supplementary tool designed to enhance existing educational practices rather than revolutionize them. They saw AI as an addition that could provide support in specific areas without fully transforming the core aspects of teaching and learning. This perception positioned AI as a helpful aid in the classroom, offering resources and tools that could complement traditional methods without overshadowing them. Participants believed that AI could make education more efficient by assisting with tasks that would otherwise consume valuable time, allowing educators and students to focus on more complex and critical learning activities.

“When AI became widespread, I saw it primarily as a supplementary tool—a means to enhance or assist students’ learning experiences.”

“I viewed AI as a platform that could offer a wide range of ideas and strategies, providing more detailed and convenient access to resources and techniques for improving the teaching-learning process.”

“Before AI became a common tool in education, I viewed it primarily as an ancillary resource—a way to enhance the learning experience rather than transform it.”

“I viewed it as a peripheral aid—something useful but not essential.”

1.2 AI’s Role in Automating Tasks

Twenty (20) participants recognized AI’s potential to automate routine tasks within the educational process, such as grading, grammar checking, or other administrative duties. This automation was seen as a way to streamline educators’ workloads, thereby freeing up time for more meaningful interactions with students. While AI was viewed as a valuable tool for handling repetitive or mundane tasks, participants acknowledged that these automated systems could assist but not replace the nuanced and personalized aspects of teaching. They believed that while AI could make the educational process more efficient, it could not replace the critical role of human judgment and insight in education.

“I believed AI could assist students in areas like grammar checking, quick reference lookups, or even basic problem-solving.”

“I thought AI could automate mundane tasks like grading or checking grammar, allowing educators to focus more on teaching and less on administrative work.”

“I thought AI might help with tasks like automated translations or grammar checks.”

2. Can you describe any changes in your teaching practices in your area of specialization?

2.1 Integration of AI for Personalized Learning

Twenty-four (24) participants highlighted how the integration of AI has allowed them to personalize learning experiences for their students. They emphasized that AI tools have enabled more precise assessments of students’ abilities, leading to tailored activities that cater to different learning levels. This shift has made their teaching more responsive and effective, ensuring that each student’s unique needs are addressed, thereby enhancing overall learning outcomes.

“AI tools allow me to assess students’ strengths and weaknesses more precisely, enabling me to create customized assignments and exercises.”

“One of my practices that enhanced my teaching practices is Personalized Learning.”

“I now use language learning apps that provide students with interactive exercises and instant feedback, which complements in-class activities.”

2.2 Critical Thinking and Manual Problem-Solving

Twenty-four (24) participants have adjusted their teaching practices to place greater emphasis on critical thinking and manual problem-solving. With the increased presence of AI in education, these educators have implemented strategies to ensure that students engage more deeply with the material. This includes incorporating more in-class activities that require direct interaction with the content, limiting reliance on AI, and focusing on the reasoning behind tasks rather than just achieving the correct answers.

“I now incorporate more in-class writing and problem-solving activities to ensure that students engage with the material directly.”

“I personally incorporate in-class activities that require critical thinking and manual problem-solving to see if they really understand the lessons.”

“I still emphasize the importance of critical thinking and ethical analysis, areas where AI cannot fully substitute the nuanced understanding required.”

3. What were your initial concerns or expectations about using AI in your teaching, and how have those views evolved over time?

3.1 Concerns About Over-Reliance and Impact on Authentic Learning

Thirty-two (32) participants expressed concerns that AI might lead to an over-reliance on technology, potentially undermining the authenticity of the learning process. They worried that students might use AI to bypass critical thinking and personal engagement, which could erode the integrity of education. However, over time, these educators recognized the need to strike a balance between using AI as a supportive tool and maintaining traditional teaching methods to preserve the human element in education.

“The primary concern is that artificial intelligence threatens the integrity and authenticity of education. It perils the human experience of conceptualizing thoughts, theories, concepts, and facts.”

“I expected AI to serve as an aid in minor tasks...but students are increasingly using AI to complete entire tasks.”

“My primary concern was that students might become too dependent on AI, using it as a crutch rather than a learning aid.”

“My primary concerns were about the reliability of AI tools and the potential for them to replace essential human interactions in teaching.”

“I worried that students might become overly reliant on AI algorithms, neglecting the development of their own analytical and decision-making skills.”

3.2 AI as a Valuable Support Tool

Thirty-six (36) respondents initially feared AI might overshadow traditional teaching or reduce personal interaction. However, they now recognize AI as a valuable tool that enhances efficiency, provides personalized feedback, and allows them to focus on more meaningful, interactive teaching.

“I worried that it might be complicated or time-consuming to integrate into my lessons. However, over time, I realized that AI is actually quite user-friendly.”

“I was hesitant to adopt AI due to concerns about disrupting traditional methods, but AI has proven to be a valuable asset.”

“I worried about a less personalized learning experience, but now see AI as a supportive tool, not a replacement.”

“Well, I’ve come to see AI as a valuable tool that enhances, not replaces, my role as an instructor.”

“Over time, I’ve realized that AI can support learning by providing personalized feedback and identifying areas where students struggle.”

Objective 2. Determine the non-negotiable beliefs of public administration, general education mathematics, and language education instructors regarding the use of AI.

4. What teaching practices do you believe should not be compromised, even with the integration of AI?

4.1 Teacher-Student Engagement and Mentorship

Twenty-four (24) participants emphasized the irreplaceable value of direct interactions and mentorship between teachers and students. AI cannot replicate the intellectual and emotional connections formed through real-time interactions, which are essential for fostering deeper understanding, critical thinking, and personal growth.

“The teacher-student engagement should never be compromised, even with the extensive use of AI. The exchange of inquiries, insights, and experiences between teachers and students is irreplaceable.”

“The emotional and ethical development of students—things like empathy, values, and social skills—must be guided by a human touch.”

“Another crucial aspect is the personal interaction between instructors and students, which is essential for developing mentorship and guiding students through their academic and professional growth.”

4.2 Student Responsibility and Creative Process

Twenty-four (24) participants underscore the importance of students being actively involved in their learning process, particularly in tasks that require creativity and critical thinking. Participants stressed that while AI can assist, it should not replace the fundamental responsibility of students in constructing their own work and developing problem-solving skills.

“I firmly believe that students must be responsible for constructing their own work, particularly in writing tasks like journals and essays.”

“Students must engage directly in the process of learning and problem-solving.”

“Language learning thrives on real-time communication, where students practice speaking and listening in a supportive environment.”

4.3 Critical Thinking and Ethical Guidance

Twenty-four (24) participants highlighted the essential role of teaching practices that cultivate critical thinking and ethical decision-making. They believe these skills are foundational to effective education and public service, and that AI should support but not replace these aspects of teaching.

“It’s vital to foster students’ ability to analyze complex societal issues and make informed decisions based on ethical considerations.”

“Ethical decision-making, critical thinking, and the ability to analyze complex policy issues are essential skills that cannot be replaced by AI.”

“Critical thinking & Problem solving, Ethical and Moral Guidance, Creativity, Encouraging Dialogue and conversations.”

5. Can you identify any specific aspects of AI that you find compatible with your educational values?

5.1 Personalized Learning and Feedback

Thirty (30) participants highlighted that AI's ability to provide personalized learning experiences and feedback aligns with their educational values. They emphasized that AI tools can adapt to individual student needs, offering tailored exercises, instant corrections, and personalized resources that enhance learning. This aspect of AI supports inclusivity and engagement, helping students to improve their understanding and skills more effectively. These tools complement traditional teaching by reinforcing concepts and providing additional practice, especially in language and mathematics education.

“AI tools can help tailor educational experiences to individual needs, providing additional resources and assistance that align with each student's unique learning journey.”

“AI can be a valuable tool for providing personalized feedback, which can help students identify and correct their mistakes more quickly than they might in a traditional setting.”

“AI's capacity for personalized practice and instant feedback aligns well with my teaching values.”

“AI's ability to analyze large datasets and provide personalized feedback is highly compatible with the goal of enhancing educational outcomes.”

5.2 Supportive Role of AI

Thirty-two (32) participants noted that AI serves as a supportive tool rather than a replacement for traditional educational methods. They expressed that while AI can assist in various educational tasks—such as auditing, grammar correction, and step-by-step solutions—it should not be treated as the sole method of teaching or evaluation. The use of AI is most effective when it enhances students' efforts and supports educators in improving their teaching strategies, rather than overshadowing the human elements of education.

“Artificial Intelligence is undeniably advantageous however should not be treated as a 'stand-alone' device.”

“AI can offer useful grammar suggestions, help with paraphrasing, or provide alternative ways of expressing ideas, which can be particularly helpful for students learning a new language or trying to improve their writing. However, it's crucial that these tools are used to enhance, rather than replace, the student's own efforts.”

“One of the specific aspects that AI have that I find compatible with my values would be about precise and concise.”

“AI can efficiently handle repetitive tasks, freeing up time for more meaningful, human-centered interactions.”

6. Are there any non-negotiable teaching practices you insist on maintaining despite the prevalent use of AI?

6.1 Integrity of Assessments and Originality

Thirty-two (32) participants emphasized the importance of maintaining the integrity of assessments and originality in student work, despite the increasing use of AI. They believe that formal assessments, such as exams, essays, and projects, should reflect students' true understanding and abilities without AI assistance. Ensuring that students rely on their knowledge and creativity during these evaluations is crucial for developing critical thinking and problem-solving skills. By insisting on original thought and independent

work, educators can preserve the foundational skills necessary for students' academic and professional success.

“One non-negotiable practice for me is maintaining the integrity of formal assessments, like written exams and compositions.”

“I require students to write essays and solve problems using their own ideas and methods, rather than relying on AI-generated content.”

“Exams, essays, and projects should be completed independently, without AI assistance, to accurately reflect the student's understanding and capabilities.”

“While AI can enhance the efficiency and effectiveness of certain aspects of education, it is crucial to preserve the core values of human interaction and ethical judgment.”

“Personal engagement, spontaneous speaking opportunities, and detailed, context-specific feedback are essential for developing language proficiency and cultural understanding.”

6.2 Human-Centered Teaching and Personal Interaction

Thirty-six (36) participants highlighted the non-negotiable importance of maintaining human-centered teaching practices and personal interactions, even with the integration of AI. They stressed that meaningful, direct interactions between educators and students are essential for fostering critical thinking, emotional growth, and ethical reasoning. These interactions build trust, understanding, and personal connections, which are crucial for holistic education. While AI can support certain aspects of teaching, the human element remains irreplaceable for nurturing well-rounded, thoughtful individuals and for providing personalized guidance and mentorship.

“I insist on maintaining practices that ensure education remains holistic and centered on human development.”

“Engaging personally with students helps build trust and understanding, aspects that are crucial for effective learning.”

“Language learning requires meaningful conversation and cultural exchange, which AI cannot fully replicate.”

“These activities foster critical thinking and develop students' ability to articulate their perspectives.”

“AI tools should not replace the human elements of teaching, such as fostering ethical debates, encouraging critical thinking, and providing personalized guidance.”

6.3 Preservation of Traditional Teaching Practices

Twenty (24) participants emphasized that traditional teaching practices should be preserved and enhanced rather than replaced by AI. They believe that existing instructional methodologies should remain intact while integrating modern advancements as complementary tools. The preservation of these practices ensures that the educational system remains grounded in time-tested methods that have proven effective in fostering student growth and learning, while also embracing new technologies to improve and enrich the teaching experience.

“The entirety of teaching practices should be preserved while simultaneously welcoming new advancements.”

“Teaching practices should not be altered rather it must be enhanced with touches of modernization.”

“The thing that I think that must be maintained would be on guiding the learners in improving their behavior.”

5. Discussion

Objective 1. Compare the shift in mindsets of instructors in public administration, general education mathematics, and language education before and after the prevalence of AI.

The study by Ou^[40] highlights the growing importance of AI in education, illustrating its evolution from being a mere supplementary tool to becoming an essential element that is fundamentally reshaping teaching and learning paradigms. As technological advancements persist, the integration of AI in education has transitioned from a supportive role to one that is central to transforming educational methods. This changes underscores how AI is not just enhancing but also redefining the traditional educational landscape, paving the way for more innovative and efficient learning experiences.

The research by Fitria^[41] underscores the potential of AI to simplify human life by automating complex tasks, similar to human logic. AI's capability stems from its ability to combine vast amounts of data with iterative processes and intelligent algorithms, enabling machines to autonomously learn from patterns within the data. This research highlights how AI, through its advanced learning algorithms, is transforming the way machines interact with and understand human needs, which in turn, is streamlining tasks that were once considered complex.

The discussed findings highlight the transformative impact of AI on personalized learning within the educational sector. Jian^[43] emphasizes that AI is increasingly being integrated to tailor educational content to the specific needs, learning styles, and pace of individual learners. This shift towards personalized learning, driven by AI, is redefining pedagogical strategies to cater more effectively to the diverse requirements of learners, thereby enhancing the overall educational experience.

The results of the findings by Smith and Johnson^[44] highlight the crucial role of AI in analyzing and monitoring learners' progress. Their research shows that AI-driven analytics can identify learning patterns, predict future performance, and provide educators with valuable insights for adjusting their instructional strategies. Furthermore, these AI tools offer learners detailed reports and dashboards that not only track their progress but also boost motivation and help set realistic goals. This integration of AI into the learning process significantly contributes to enhancing critical thinking and manual problem-solving by providing timely feedback and personalized support.

The study by Zhai et al.^[45] underscores the potential dangers associated with excessive reliance on AI, especially when individuals accept AI-generated recommendations without critically evaluating them. This over-reliance can lead to errors in decision-making processes, as individuals may struggle to accurately assess the reliability of AI outputs. Xie et al.^[46] further highlight that unverified AI-generated content can result in serious misclassification and misinterpretation, which can escalate into research misconduct, including plagiarism, fabrication, and falsification. Additionally, Kyoungwon et al.^[47] express concerns that such dependence on AI might undermine students' abilities to learn independently, think critically, and solve

problems creatively. Their research stresses the importance of exploring how both students and instructors perceive the influence of AI systems within online learning environments.

The research finding highlights the potential of AI as a transformative support tool in education, as noted by Ascione^[47]. However, despite its promising capabilities, there is a recognized need for ongoing professional development and support for teachers to fully integrate AI into their teaching practices effectively. This indicates that while AI offers significant advantages, the successful adoption and implementation in educational settings require educators to be equipped with the necessary skills and knowledge to harness its full potential.

Objective 2. Determine the non-negotiable beliefs of public administration, general education mathematics, and language education instructors regarding the use of AI.

The study by Nicholas^[48] underscores the importance of strong teacher-student relationships, which have been shown to significantly improve reading achievement. The research emphasizes that students achieve better outcomes when their teachers have a deep understanding of them. To foster such relationships, a yearlong mentorship program is proposed, where teachers will engage in activities designed to enhance the connections with their students, thereby positively impacting classroom dynamics and learning outcomes.

The research conducted by Habib et al.^[49] explores the growing role of generative Artificial Intelligence (AI) tools, such as Chat-GPT, Google Bard, and Microsoft Bing, in enhancing students' creative thinking, specifically focusing on divergent thinking skills. The study highlights that the availability of these AI chatbot tools presents a unique opportunity for students to develop and refine their creative processes, potentially expanding the boundaries of traditional learning methods. The findings suggest that AI can serve as a valuable resource in fostering student responsibility and creativity.

The study highlights the increasing significance of critical thinking as a fundamental component of modern educational approaches. Iyer^[50] argues that critical thinking skills have become indispensable across all fields of learning, especially in recent decades. The research underscores the necessity of cultivating these skills to ensure students are equipped to navigate complex ethical dilemmas and make informed decisions in various aspects of their personal and professional lives.

The research by Jian^[42] underscores the transformative impact of AI in the field of education, particularly in the realm of personalized learning. AI's capability to tailor educational content to the unique needs, preferences, and pace of individual learners is highlighted as a key advancement in pedagogical strategies. The study suggests that this approach not only enhances the learning experience but also ensures that educational interactions are more aligned with each student's personal development.

Chen and Zhang^[51] emphasize the role of AI in customizing learning experiences to meet the specific needs and progress of each learner. The research highlights how AI-driven language-learning platforms utilize algorithms to identify learners' strengths and weaknesses, providing targeted activities and feedback to address individual challenges. This approach supports a more personalized and effective learning process, catering to the diverse needs of students.

The study by Kifle^[52] highlights the growing concerns regarding the integrity and fairness of assessments in the context of increasing reliance on AI tools by students. The research points out that as AI becomes more prevalent in completing assignments, it poses challenges for educators in accurately evaluating students' understanding and effort. Kifle^[52] suggests that instructors must consider innovative assessment methods to maintain fairness and authenticity, ensuring that evaluations truly reflect individual capabilities and achievements.

The discussed findings highlight the non-negotiable importance of maintaining human-centered teaching practices and personal interactions, even with the integration of AI. Chakraborty et al.^[53] stress that meaningful, direct interactions between educators and students are crucial for fostering critical thinking, emotional growth, and ethical reasoning. Markauskaite et al.^[54] also highlight the transformative role of AI in education, which, while enabling innovative teaching strategies, also challenges traditional assessment practices. Shehab et al.^[55] emphasize the critical role of instructors in incorporating Human-Centered Design (HCD) in higher education settings, ensuring that technological advancements do not replace the essential human element in teaching.

The research highlights the non-negotiable importance of maintaining human-centered teaching practices and personal interactions despite the integration of Artificial Intelligence (AI). Chakraborty et al.^[53] emphasize how rapidly advancing AI technologies are transforming daily activities, including educational practices. Markauskaite et al.^[54] discuss how AI innovations are reshaping teaching and learning strategies, which brings significant changes to educational methodologies. Simultaneously, Swiecki et al.^[56] point out that these AI developments challenge existing assessment practices. In the context of higher education, Shehab et al.^[55] stress the crucial role of instructors in incorporating Human-Centered Design (HCD) into both new and existing courses, ensuring that AI's integration does not diminish the importance of direct and meaningful educator-student interactions.

6. Conclusion

The integration of Artificial Intelligence (AI) into educational practices, as explored through research involving instructors from various universities in Zamboanga Peninsula—encompassing Public Administration, General Education, Mathematics, and Language Instruction—reveals both significant benefits and challenges. AI has evolved from a supplementary tool to a central component of modern education, enhancing the personalization of learning and transforming teaching methodologies across disciplines.

The study highlights AI's capacity to tailor educational content to Individual needs, thereby improving engagement and learning outcomes. However, it also identifies critical concerns, such as the risk of over-reliance on AI, which can lead to errors in decision-making and potential issues with academic integrity. These findings underscore the necessity for instructors to carefully balance AI's advantages with its limitations, ensuring that technology supports rather than undermines essential educational values.

Furthermore, the research emphasizes the importance of professional development for educators. Instructors from different universities must be adept at integrating AI into their teaching while maintaining the core principles of education, including strong teacher-student relationships and fair assessment practices. Critical thinking and personal interactions remain vital components of the educational process, even as AI becomes more integrated into classroom settings.

To sum it up, while AI offers transformative potential for enhancing educational practices, its integration must be approached with careful consideration of both technological and pedagogical factors. By aligning AI advancements with traditional educational values, instructors can leverage technology to enrich the learning experience while upholding the integrity and effectiveness of their teaching practices.

Conflict of interest

The authors declare no conflict of interest.

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