



# TEACHERS' EXPERIENCES AND PERCEPTIONS IN USING ARTIFICIAL INTELLIGENCE TOOLS FOR INSTRUCTIONAL PRACTICES: A DESCRIPTIVE QUALITATIVE STUDY

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## ABSTRACT

Artificial intelligence (AI) tools have increasingly transformed instructional practices in education by providing innovative approaches to lesson preparation, assessment, differentiated instruction, and student engagement. This study explored the lived experiences and perceptions of secondary school teachers in using AI tools for instructional practices through the lens of Psychological Empowerment Theory developed by Gretchen Spreitzer (1995). Specifically, the study examined teachers' sense of purpose, confidence, autonomy, influence on students, and contextual conditions affecting AI integration. Using a descriptive phenomenological qualitative design, data were gathered from ten secondary school teachers in selected schools in downtown Davao City through in-depth interviews. Thematic analysis following Braun and Clarke's framework was employed to analyze participants' narratives.

Findings revealed that AI tools enhanced teachers' efficiency by reducing preparation time, enabling more focus on student support and mentoring. Teachers also experienced increased instructional creativity, improved differentiated learning, and higher student engagement. Participants developed confidence in prompt writing, lesson planning, and content adaptation while maintaining professional judgment in evaluating AI-generated outputs. However, challenges such as overreliance on AI, ethical concerns, unstable internet access, limited training opportunities, and lack of institutional policies were also identified. Teachers emphasized that AI should remain a support tool rather than a replacement for educators, highlighting the importance of balancing technological innovation with human judgment and creativity.

The study concluded that AI integration can empower teachers when supported by adequate training, infrastructure, ethical guidance, and institutional support. The findings contribute to the growing discourse on responsible AI integration in education and provide implications for policy development, teacher training, and future research on technology-enhanced instruction.

**KEYWORDS:** artificial intelligence, instructional practices, teacher empowerment, qualitative research, educational technology

## INTRODUCTION

The rapid integration of artificial intelligence (AI) into education has significantly transformed teaching and learning practices across the globe. AI-powered tools such as automated grading systems, adaptive learning platforms, content generators, and virtual assistants are increasingly being used by educators to improve efficiency, personalize instruction, and enhance student engagement. As educational institutions continue to embrace digital transformation, AI technologies have become more visible in classrooms and instructional planning. However, despite the growing adoption of AI in education, teachers continue to face challenges related to technological readiness, ethical concerns, autonomy, and professional identity.

International studies reveal that teachers' experiences with AI are shaped by technological competence, institutional support, and perceptions of usefulness. Holmes et al. (2022) emphasized that many educators struggle with understanding the functionality and limitations of AI systems, affecting their ability to integrate these tools effectively. Similarly, Zawacki-Richter et al. (2021) found that insufficient training and lack of institutional support remain

major barriers to meaningful AI adoption in schools. Teachers have also expressed concerns regarding academic integrity, dependency, and the possible reduction of creativity and critical thinking among learners.

In the Philippine context, AI integration in education is becoming increasingly common, particularly in urban schools with stronger technological infrastructure. Ramos and De Guzman (2024) reported that teachers viewed AI tools as beneficial for lesson planning and instructional efficiency but expressed uncertainty regarding ethical use and long-term implications. The Department of Education (DepEd, 2023) also recognized the need to strengthen teachers' digital competencies to ensure effective technology integration in classrooms.

This study was anchored on Psychological Empowerment Theory developed by Gretchen Spreitzer (1995), which explains empowerment through four dimensions: meaning, competence, self-determination, and impact. Through this theoretical lens, the study explored how teachers experienced and perceived AI



integration in relation to their professional identity, instructional autonomy, confidence, and influence on student learning.

The study aimed to explore teachers' experiences and perceptions in using AI tools for instructional practices. Specifically, it sought to answer the following questions:

1. How do teachers experience the use of AI tools in terms of confidence, autonomy, sense of purpose, and influence on students?
2. What perceptions do teachers hold regarding the benefits and challenges of AI tools?
3. How does AI affect teachers' instructional strategies and decision-making?
4. What support systems and contextual conditions help teachers use AI effectively and responsibly?

The findings of this study may provide valuable insights for teachers, school leaders, policymakers, and researchers regarding responsible AI integration in education. The study also contributes to the broader discourse on teacher empowerment and technology-enhanced instruction.

## METHODS

### Research Design

This study employed a descriptive phenomenological qualitative design to explore the lived experiences and perceptions of teachers in using artificial intelligence tools for instructional practices. The phenomenological approach was appropriate because it focused on understanding participants' experiences as they were consciously lived and interpreted. Through bracketing, the researcher attempted to minimize personal biases and preserve the authenticity of participants' narratives.

### Research Locale and Participants

The study was conducted in selected secondary schools in downtown Davao City. These schools were chosen because they possessed reliable internet connectivity and had already begun integrating AI tools into instructional practices. A total of ten secondary school teachers participated in the study.

Purposive sampling was utilized to select participants who had direct experience using AI technologies in teaching. The participants represented different subject areas and teaching experiences, allowing for a broader understanding of AI integration in educational settings.

### Research Instrument

Data were gathered using a semi-structured interview guide. The guide consisted of open-ended questions focused on teachers' experiences, perceptions, challenges, and insights regarding AI integration. The instrument was validated by experts in educational technology and qualitative research to ensure relevance, clarity, and alignment with the objectives of the study.

### Data Collection Procedure

Prior to data collection, the researcher secured approval from the appropriate authorities and obtained informed consent from all

participants. In-depth interviews were conducted face-to-face at a time and place convenient for the participants. Interviews were audio-recorded with participants' permission, and field notes were taken to capture observations and reflections.

### Ethical Considerations

The study adhered to ethical standards in qualitative research. Participation was voluntary, and participants were informed of their right to withdraw at any time. Confidentiality was maintained through the use of pseudonyms and secure data storage. The researcher ensured respectful and non-intrusive interactions throughout the research process.

### Data Analysis

Thematic analysis following Braun and Clarke's six-phase framework was employed to analyze the data. The process included familiarization with the data, coding, searching for themes, reviewing themes, defining themes, and producing the report. Through repeated reading and interpretation of the transcripts, major themes and subthemes emerged from participants' narratives.

## RESULTS AND DISCUSSION

Thematic analysis revealed five major themes regarding teachers' experiences and perceptions in using AI tools for instructional practices: sense of purpose, skills and confidence, autonomy in teaching, influence on students and outcomes, and contextual conditions.

### Sense of Purpose

Teachers reported that AI strengthened their sense of meaning and fulfillment in teaching. Participants emphasized that AI reduced preparation time, enabling them to focus more on students' needs and mentoring. Repetitive tasks such as lesson planning, assessment preparation, and content organization became more manageable through AI assistance.

Teachers also highlighted how AI supported differentiated instruction and inclusivity. AI tools allowed them to adapt learning materials according to students' abilities, learning styles, and language levels. These findings align with Xu and Ouyang (2022), who argued that AI enhances instructional efficiency and personalized learning experiences.

Another important finding involved increased student engagement. Teachers observed that interactive AI-supported activities encouraged participation and motivation among learners. Students became more active in classroom discussions and collaborative tasks when lessons incorporated creative AI-generated activities.

### Skills and Confidence

Participants described gradual improvements in their confidence and competence in using AI tools. Teachers developed skills in prompt writing, evaluating AI outputs, and modifying generated content according to lesson objectives. However, they



consistently emphasized the importance of reviewing AI-generated materials to ensure accuracy and appropriateness.

The findings also revealed that teachers possessed moderate confidence in using AI for routine instructional tasks such as quizzes, lesson plans, and simplified explanations. Despite this confidence, participants expressed the need for advanced training and ethical guidance. Teachers requested professional development programs focusing on practical AI integration, responsible use, and assessment strategies.

These findings support the claims of Trust et al. (2023), who noted that teachers' digital literacy significantly influences their confidence and willingness to adopt AI technologies in education.

### Autonomy in Teaching

Teachers strongly emphasized that AI did not reduce their autonomy as educators. Instead, AI functioned as a decision-support tool that provided suggestions and alternative instructional strategies. Participants consistently stated that they retained final authority over lesson planning, assessment, and instructional decisions.

Teachers appreciated the flexibility and creativity that AI introduced into their teaching practices. AI-generated ideas inspired them to redesign lessons, integrate interactive activities, and explore innovative instructional approaches. However, participants also acknowledged the risks of overreliance. Excessive dependence on AI-generated content was perceived as a possible threat to originality, creativity, and critical thinking.

The findings highlight the importance of maintaining professional judgment and balancing technological assistance with reflective teaching practices. These results are consistent with Spreitzer's Psychological Empowerment Theory, particularly the dimension of self-determination, where teachers preserved autonomy despite technological integration.

### Influence on Students and Outcomes

Teachers observed positive effects of AI integration on student learning outcomes. AI helped educators provide clearer explanations, varied examples, and simplified discussions that improved student understanding of difficult concepts. Participants also reported that AI supported differentiated activities tailored to students' needs and learning levels.

Increased participation and motivation were among the most visible outcomes identified by teachers. Interactive AI-supported activities encouraged active engagement and collaboration among students. However, participants also expressed concern regarding student dependency on AI tools. Teachers feared that excessive reliance on AI could reduce students' critical thinking and independent problem-solving skills.

These findings suggest that while AI can enhance engagement and accessibility, responsible guidance remains essential to preserve intellectual development and academic integrity.

### Contextual Conditions

Participants emphasized that effective AI integration depends heavily on contextual factors such as infrastructure, training, policies, and institutional support. Teachers identified unstable internet connectivity, lack of devices, and insufficient digital resources as barriers to meaningful AI implementation.

Teachers also highlighted the importance of clear policies and ethical guidelines regarding AI use in schools. Institutional support and leadership encouragement increased teachers' confidence and sense of security in using AI responsibly.

Collaboration among teachers, access to templates, and sufficient preparation time were also identified as important conditions for sustainable AI integration. Participants emphasized that meaningful innovation requires both technological support and collaborative professional communities.

Overall, the findings demonstrated that teachers viewed AI as a supportive and empowering tool rather than a replacement for educators. AI enhanced instructional efficiency, creativity, and engagement while simultaneously requiring ethical awareness, critical evaluation, and professional judgment.

### CONCLUSION

The study explored the lived experiences and perceptions of teachers in using artificial intelligence tools for instructional practices. Findings revealed that AI integration positively influenced teachers' sense of purpose, instructional creativity, confidence, and student engagement. AI tools reduced workload, supported differentiated instruction, and enhanced accessibility in classroom learning experiences.

Teachers developed competence in prompt writing, content evaluation, and lesson preparation while maintaining professional autonomy and instructional control. Participants consistently emphasized that AI should remain a support tool rather than a replacement for educators. Human judgment, creativity, and ethical responsibility continued to play central roles in effective teaching.

Despite the benefits of AI integration, the study also identified significant challenges, including overreliance, ethical concerns, unstable internet access, limited resources, and insufficient training opportunities. Teachers stressed the importance of professional development, institutional support, clear policies, and reliable infrastructure to ensure responsible and sustainable AI integration.

The findings support Psychological Empowerment Theory by demonstrating how AI influenced teachers' sense of meaning, competence, self-determination, and impact. AI became



empowering when teachers retained control over instructional decisions and used technology to enhance rather than replace human-centered teaching practices.

The study recommends that educational institutions invest in teacher training programs, strengthen digital infrastructure, and establish ethical frameworks governing AI use in schools. Future research may explore the long-term effects of AI integration on teacher empowerment, instructional quality, and student outcomes using broader and mixed-method approaches.

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