

ABSTRACT

The rising integration of artificial intelligence (AI) in educational tools creates an urgent requirement for support systems that help educators use these technologies responsibly. The poster demonstrates how practical AI literacy can improve teachers' confidence and engagement. The study investigates primary obstacles for implementation such as fear and insufficient training alongside ethical issues while presenting methods to develop a teaching-focused framework. This resource aims to offer educators a research-backed summary which enables them to critically and ethically deploy AI technology effectively in educational settings.

OBJECTIVES

This study aims to investigate how practical AI literacy can address affective, pedagogical, and ethical challenges teachers face in AI-mediated environments.

MATERIALS AND METHODS

The foundation of this poster lies in a thematic analysis of peer-reviewed academic articles alongside policy documents and AI instructional frameworks published throughout the period from 2018 to 2024. We sourced references from educational databases including ERIC, Scopus and Web of Science by searching keywords like "AI literacy," "teacher preparedness," "ethical AI in education," and "educational technology." Key concepts were grouped together into thematic areas such as teacher confidence along with ethical decision-making and AI implementation strategies. This study analyzes how theoretical AI understanding can be applied in real classroom settings.

RESULTS

The synthesis revealed five primary barriers:

- (1) low confidence in using AI tools,
- (2) limited access to AI-specific professional development,
- (3)The research found no existing teaching frameworks to effectively integrate AI systems, ethical concerns regarding data management and bias issues
- (4)The final barrier identified is anxiety about being replaced by AI systems or losing personal control over teaching methods.

Hands-on workshops, scenario-based training sessions, and ethical discussion forums demonstrated substantial improvements in teacher engagement when used as practical interventions. Research findings showed that teacher confidence develops through systematic support and reflective practices rather than technical expertise. AI literacy models that focus on teacher needs hold great potential for achieving responsible and impactful AI integration.

CONCLUSIONS

Educator empowerment for AI engagement extends beyond technical skills to include pedagogical integrity and ethical understanding. This poster asserts that effective AI literacy strategies which build confidence can overcome main obstacles while lowering resistance levels. Educators should serve as active participants during the shift to AI-based teaching rather than passive users of new technology. Ensuring that AI supports educational values mandates systemic investment in teacher training along with ethical reflection and accessible frameworks. Researchers need to investigate how these interventions perform over time in different school environments.

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