

Exploring AI Literacy among Pre-service Early Childhood Teachers: Daily Use, Attitudes, and Applications in Teaching Preparation

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Abstract

The rapid advancement of artificial intelligence (AI) is transforming educational practices, including early childhood education. Although AI adoption has increased in primary and secondary schools in Hong Kong, limited research has examined how pre-service kindergarten teachers perceive and prepare for AI integration in their professional practice. This study investigates the awareness, readiness, and perspectives of final-year pre-service early childhood teachers regarding the use of AI in future teaching.

Using a mixed-methods approach, data were collected through a questionnaire survey and semi-structured interviews with 53 pre-service kindergarten teacher students. The questionnaire explored daily use of AI tools, such as text and image generation applications (e.g. Microsoft Copilot), while interviews examined views on AI's role in lesson planning, teaching materials, and activity preparation.

Findings show frequent AI use and generally positive attitudes, but uneven pedagogical readiness. Concerns included ethics, developmental appropriateness, and over-reliance. The study highlights the need for targeted AI literacy training in early childhood teacher education in Hong Kong.