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Reflective Practice as Human Pedagogy: Bridging the Primary-to-Secondary Art and Design Curriculum Gap

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Abstract

The rise of artificial intelligence in education, including automated assessment and personalised content delivery, raises pressing questions about the human elements of teaching. This paper argues that reflective practice, as conceptualised by Dewey (1933) and Schön (1983), is a uniquely human pedagogical competency that cannot be replicated by algorithms. Developing this capacity among art educators is essential for maintaining educational quality and social resilience as AI becomes more prevalent.

This paper presents initial findings from a practitioner-led workshop with three primary art and design teachers at an international school in Kuala Lumpur. The workshop engaged participants in curriculum mapping, hands-on activities, and reflective dialogue about the challenges of transitioning from Key Stage 1 to secondary education. Survey data show all participants have over two years' teaching experience and postgraduate qualifications.

These findings, placed in the context of AI-driven educational change, reveal that the primary-secondary curriculum gap in art and design is not just a structural issue, but a fundamentally human challenge. Addressing it requires educators capable of critical reflection and professional judgement, which AI cannot currently replicate. Teacher reflective practice, grounded in Dewey and Schön, is positioned as both a research tool and a response to the uncertainties of AI in education.

This study is part of ongoing PhD research on reflective practice among Malaysian art educators. While the sample is small and exploratory, it provides an empirical foundation for a conceptual framework to guide future research. The paper highlights the reflective and relational aspects of teaching that remain vital as AI transforms education.

Keywords:
Reflective practice; art and design education; curriculum continuity; transition from primary to secondary; artificial intelligence in education; John Dewey; Donald Schön; Malaysia: teacher professional development

Introduction

The rapid integration of AI into education has sparked debate about the future of teaching and learning. While AI offers benefits like adaptive learning and automated feedback, it also raises questions about the uniquely human aspects of teaching, particularly in creative disciplines such as art and design.

The curriculum gap between primary and secondary art and design education compounds this shift. Learners moving from Key Stage 2 to secondary face discontinuities in artistic vocabulary, studio expectations, and conceptual approaches (Bamford, 2021; Hall & Thomson, 2022), highlighting deeper disconnects between educators at different levels.

This paper explores these concerns through reflective practice, drawing on Dewey and Schön, and is based on a practitioner workshop in Kuala Lumpur. It contends that reflective practice is a uniquely human competency essential for navigating educational transitions. The workshop serves as an initial empirical site for the ongoing PhD research.

Literature Review

Reflective practice is rooted in Dewey's How We Think (1933), which distinguished routine action from reflective action. Reflective action involves careful, persistent consideration of beliefs and their consequences. For Dewey, reflection is an experiential process of meaning-making, arising from confronting problems and reconstructing experience through enquiry.
Schön (1983, 1987) expanded on Dewey by introducing the reflective practitioner model, distinguishing reflection-in-action (during practice) and reflection-on-action (afterward). He argued that professional expertise is a contextual intelligence developed through ongoing reflective engagement, rather than merely applying technical solutions to predefined problems.

Recent scholarship extends these ideas to disruptions from digital and AI technologies. Myllykoski-Laine et al. (2024) describe reflection as social and dialogic. Xerri (2025) observes that digital environments alter how teachers reflect, while Gudeta (2022) highlights structured frameworks across career stages. Alghamdi and Alghizzi (2025) and Zhai et al. (2024) stress the need for teachers to consider the ethical and cultural impacts of AI in education.

The primary-to-secondary transition is widely recognised as a disruptive phase (Galton et al., 2020). In art and design, it involves moving from exploratory practices in primary to discipline-specific, assessment-driven approaches in secondary (Hall & Thomson, 2022). Limited dialogue between primary and secondary educators, as observed by Downing and Watson (2020), exacerbates this. In Malaysia, the KSSR and KSSM offer distinct frameworks for visual arts, but research on cross-phase cooperation is limited (Zulkifli & Hassan, 2021).

The use of AI, from generative tools to intelligent tutoring systems, is transforming education (Holmes et al., 2022). Selwyn (2022) warns against techno-optimism, noting that AI can obscure the human labour and judgement behind teaching. Luckin et al. (2022) argue that educators with strong reflective skills are best equipped to work alongside AI, maintaining learner-centred judgement. Reflective practice thus becomes a form of human resilience amid technological change.

Methodology

This study uses a qualitative, practice-based research design, consistent with the interpretivist orientation of the wider PhD project and practitioner research traditions (Cochran-Smith & Lytle, 2020). It is exploratory and aims to inform future, larger-scale research.

A practitioner-led workshop was conducted in April 2026 at an international school in Kuala Lumpur, involving three primary art and design teachers. The workshop included a presentation on curriculum continuity, hands-on art-making, discussion of transition challenges, and reflective journaling. This multi-modal design reflects Schön's and Dewey's concepts of reflection as experiential and embedded in practice.

After the workshop, participants completed a structured survey covering teaching experience, key stages taught, and qualifications. All three responded, but no claim to statistical representativeness is made.

Informed consent was obtained, and the research is subject to institutional ethics review.

Results

Demographic data show all three participants have over two years of teaching experience, with two teaching primarily at Key Stage 2 and one across both KS1 and KS2. Most hold postgraduate qualifications in art or design education, indicating both practical experience and academic engagement.

Table 1: Participant Demographic Profile (n = 3)

Years of experience	Concentrated in one band (>2 years)	3 (100%)
Key stage taught	KS2 only	2 (66.7%)
	Both KS1 and KS2	1 (33.3%)
	KS1 only	0 (0%)
Art/Design qualification	Postgraduate level (majority)	2 (66.7%)
	Other qualification	1 (33.3%)

In the discussion, participants identified discontinuities learners face during the primary-secondary transition, such as differences in the language of art critique, challenges in assessing creative processes, and limited opportunities for professional dialogue across phases. Reflective journaling encouraged participants to articulate rarely discussed aspects of their practice, with several noting the workshop's value for professional reflection.

These findings support the claim that experienced, reflective art educators possess professional judgement and contextual sensitivity that current AI cannot replicate. As Holmes et al. (2022) note, AI tools are effective for clearly defined outcomes, but art and design education's focus on creative processes resists such reduction. The workshop facilitated collective reflection, turning a structural challenge into a professional learning opportunity based on human expertise.

Conclusion

This paper has demonstrated that reflective practice, as theorised by Dewey (1933) and Schön (1983), constitutes a distinctly human pedagogical response to two concurrent challenges: AI-driven educational transformation and the persistent primary-to-secondary curriculum gap in art and design education. Through a pilot workshop and post-survey involving three primary art educators in Kuala Lumpur, the study provides initial empirical support for a conceptual framework that positions teacher reflective practice as both a research lens and a professional competency of critical importance in the AI era.

The participant profile, comprising experienced and postgraduate-qualified practitioners working at the critical KS2 transition stage, indicates a practitioner community with the professional depth necessary for productive engagement in reflective inquiry. The workshop's multimodal design, which integrated presentation, art-making, dialogue, and journaling, provides a model for professional development in art and design education.

These findings are preliminary. The sample size of n = 3 from a single international school is limited and does not permit generalisation; future phases of this research will seek to recruit 10 to 30 participants across a broader range of school contexts to enable meaningful comparison (Creswell & Poth, 2018). Given that the researcher also facilitated the workshop, ongoing reflexivity regarding this dual role remains an important methodological consideration.

In contributing to the Education and Workforce for an AI Future track, this paper contends that the educational workforce of the AI era requires not only technological literacy but also specifically human capacities, including reflection, professional judgement, and relational intelligence, which cannot be replicated by AI systems. Art and design education, with its creative and interpretive complexity, serves as an effective context for this argument, and the primary-secondary transition is precisely where these human capacities are most evident and most essential.

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