

Preliminary Insights on Learners' Preferences on Pursuing Academic Micro-Credentials at Universiti Putra Malaysia

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Abstract: With the rising demand for personalised learning, micro-credentials offer learners a pathway to tailor their education to their individual goals. This pilot study explored the preferences of four undergraduate learners enrolled in micro-credential courses through a focus group discussion. Thematic analysis identified three key dimensions influencing the focus of this study: value of micro-credentials, quality of learning experience, and shaping learning path. These dimensions reflect factors shaping learners' interest in pursuing academic courses offered through the micro-credentials mode of delivery. These preliminary findings contribute to the growing literature on academic micro-credential implementation.

Keywords: micro-credentials, learners' preferences, learning experience, learning path

1. Introduction

As emerging technologies reshape industries, the demand for workers to acquire skills aligned with evolving market needs is increasing (Hazrat et al., 2023). The Ministry of Higher Education (MoE) in Malaysia has emphasized lifelong learning and flexible online pathways, particularly following the COVID-19 pandemic. To support this, the Malaysian Qualifications Agency (MQA) leverages the Malaysian Qualification Framework (MQF) to promote micro-credentials as stackable, competency-based courses that bridge skills gaps and equip individuals with industry-relevant competencies. Positioned within technology-enhanced learning, micro-credentials incorporate online tools to deliver flexible, competency-driven pathways. Learners often gravitate towards online micro-credential platforms that offer user-friendly interfaces and accessible content, enabling flexible learning while managing work and personal commitments (Bruguera et al., 2023).

Universities and training institutions are adopting micro-credentials to prepare learners for the dynamic job market and help them remain competitive. A recognised micro-credential confirms that an individual has attained the required skills and met qualification standards set by the relevant authority (Orman et al., 2023). While the design of micro-credentials influences learning for working adults in Malaysia, learners' personal experiences ultimately shape their engagement (Tee et al., 2023), making it essential to understand individual preferences to design more effective programmes. Accordingly, the study aims to answer the question: *What are learners' preferences for micro-credentials at Universiti Putra Malaysia?* By addressing this question, the paper contributes to understanding learners' perspectives of micro-credentials in Malaysian higher education, focusing on challenges and benefits.

2. Method

This study is driven by the Expectation-Confirmation Theory (ECT), Information System Continuance Theory (ISCT), and the Technology Acceptance Model (TAM). ECT examines how satisfaction, perceived usefulness, and the confirmation of initial expectations influence continued system use (Bhattacharjee, 2001). ISCT builds on ECT by explaining sustained technology adoption through perceived usefulness, satisfaction, and confirmed expectations (Garavand et al., 2025). Meanwhile, TAM focuses on how perceived usefulness and ease of use influence user attitudes, intentions, and technology acceptance (Davis, 1989). This study explores learners' perspectives on micro-credentials by adopting a case study design and interpretivist paradigm. Case studies are valuable in addressing challenging social issues due to how they preserve the comprehensive and significant aspects of real-life events (Yin, 2003). This method is ideal for gaining insight into how learners perceive and engage with micro-credentials in their institutional contexts.

Four undergraduate students who completed micro-credential courses were selected through purposive sampling to represent diverse backgrounds in terms of course, year of study, and faculty. To ensure privacy and enhance the clarity of data presentation, participants were given pseudonyms. Data collection was carried out using an online semi-structured interview protocol in a focus group discussion (FGD) format via Google Meet. The session lasted approximately 90 minutes. The semi-structured interview protocol, used within the FGD, was developed based on factors drawn from ECT, ISCT, and TAM. Audio recordings were transcribed and stored securely, and the findings were analysed using thematic analysis to identify and interpret shared patterns in participants' experiences and perspectives (Braun & Clarke, 2012).

3. Results

Students reported challenges such as limited awareness about the micro-credentials and delays in assignment grading. For example, "I had no idea what micro-credentials were...it was not well promoted or familiarized among students" (Agnes) and "I had to wait a few days for grading...it disrupted my rhythm of learning" (Rafael). Despite these challenges, thematic analysis identified three main themes, each with related sub-themes, offering valuable insights into learners' experiences and perspectives. Table 1 presents the main themes and corresponding sub-themes identified from the analysis.

Table 1. Themes Summary from Analysis

No.	Themes	Sub-Themes	Sample Excerpt
1	Value of Micro-credentials	1.1 Flexibility	"It allowed me to go through the course at my own pace. If there was any part I found difficult, I could spend more time on it." (Rafael)
		1.2 Gaining Practical Skills (Technical and Language)	"The technical aspects, like submitting assignments, taught us new methods and how to use various technologies." (Agnes) "It helped me understand the formal use of the Malay Language." (Hilda)
2	Quality of Learning Experience	2.1 Feedback and Support	"The quality of feedback and support was really good. The professor was very involved. If I had any technical issues, I could contact the Putra MOOC admin, and I would usually get a response within one or two days, the issue would be resolved quickly." (Rafael)
		2.2 Learning Materials	"The notes and videos were just perfect. They even included English subtitles when the teachers were speaking in Malay." (Agnes)

				"The topics were really well-organized and focused on real-life situations, which helped us understand how to actually use Malay in context." (Hilda)
		2.3	Learning Experience	"It was very supportive and genuinely helpful. For language learning, I actually prefer the micro-credential format." (Taylor) "It suited me really well. Micro-credentials felt like a real lifesaver." (Agnes)
3	Shaping Learning Path	3.1	Learner Autonomy	"It was structured in a way that allowed me to do it whenever I wanted. The control was entirely in my hands." (Hilda) "It's a self-learning course, and I can go at my own pace. I'm the type of person who prefers to work without pressure and manage my own time." (Taylor)
		3.2	Time Efficiency	"At least with micro-credentials, you can manage your own time throughout the course." (Rafael) "This semester felt much easier compared to previous ones." (Agnes)
		3.3	Professional Growth and Skill Development	"Through this, we develop a sense of responsibility and self-discipline, which will help in our professional growth. It also adds value to our CV." (Agnes) "It helps students build a strong portfolio of skills. It enhances and boosts your resume by allowing you to develop beyond the classroom and gain the experiences and skills you want." (Hilda)

The preliminary findings highlighted how flexibility and practical skill acquisition enhanced learners' value of micro-credentials. Micro-credentials gave learners more flexibility and supported lifelong learning by certifying the skills they had gained (Varadarajan et al., 2023). Quality of learning experience was shaped by the quality of feedback, availability of support, learning materials, and the extent to which courses aligned with learners' goals. Respondents expressed satisfaction with the micro-credential courses, emphasising the value of reflection opportunities, guidance, and the availability of diverse resources that supported the fulfilment of their learning goals (Scott et al., 2024). Shaping the learning path was strengthened by autonomy, time efficiency, and opportunities for professional growth. Learning online enhances accessibility by removing physical and time constraints, enabling students to acquire knowledge and skills at their own pace. It also allows learners to tailor their studies to align with personal interests, professional goals, and specific competencies (Gamage & Dehideniya, 2025). These findings align with the theoretical perspectives underpinning this study, which emphasise factors in ECT, ISCT, and TAM. Expectation confirmation significantly impacts both perceived usefulness and satisfaction, which in turn strongly influence learners' intentions to continue using MOOCs and similar learning technologies (Lee et al., 2023). These findings indicate that well-constructed micro-credential programmes can improve student satisfaction, perceived usefulness, long-term participation, and tailored higher education learning pathways.

4. Conclusion

This pilot study examined the factors shaping UPM learners' experiences with, and intentions to continue micro-credential courses, drawing on Expectation-Confirmation Theory (ECT), Information System Continuance Theory (ISCT), and the Technology Acceptance Model (TAM) as its framework. Flexibility, skill development, and relevant content emerged as key

strengths, while low initial awareness and navigation difficulties were identified as early challenges. These findings offer a useful foundation for enhancing the design and delivery of micro-credentials in Malaysian higher education, particularly at UPM. Given that the study involved a small group from a single university, the results are not intended to represent all students. Future research with a larger and more diverse sample could yield deeper insights and stronger recommendations.

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