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EXPLORING LEARNERS' MOTIVATIONS AND PREFERENCES FOR MICRO-CREDENTIALS: A MIXED-METHOD STUDY

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Abstract

As professionals aim to stay abreast of their ever-changing disciplines and global challenges, and universities reframe their offerings, the popularity of micro-credentials continues to grow. Without replacing traditional qualifications, micro-credentials offer the potential for short, flexible learning experiences that support learners in achieving their career or life goals. Universities, providers, employers, and students are all important stakeholders in the micro-credentials ecosystem. However, there is a significant dearth of academic research on students' perspectives towards micro-credentials. This gap represents a crucial challenge that universities must tackle when developing training options. This study aims to investigate learners´ motivations and preferences for micro-credentials employing a mixed-method methodology. The research sample comprises 37 adult learners, alumni of continuous education programs at the Open University of Catalonia. After reviewing the research data, results revealed a multitude of factors driving diverse learners towards pursuing micro-credentials. Among these factors, personal interests and career objectives appear to be the primary motivators, followed by social and academic motivations, which play a secondary role. Additionally, the study indicates that there is a notable preference for short courses that last between two to three months, requiring a part-time dedication of between six to fifteen hours per week. Students have a stronger inclination towards micro-credentials that are applicable, as opposed to the theoretical knowledge emphasized in college or master's programs. Courses delivered in online and asynchronous formats are particularly demanded, although some learners appreciate the opportunity for synchronous Q&A sessions with instructors. Learners highly value the modularization of micro-credentials into different levels and prefer courses that offer credentials, although not all of them consider official credentials to be essential, particularly those that pursue micro-credentials for personal reasons. This research supports universities in their efforts to develop and align short learning courses that respond to actual learners' demands.

Keywords:

Micro-credentials, certification, short learning experiences, learners, higher education, learners´ motivations, learners´ preferences.

Introduction

The current global transformation, driven by multiple factors such as the pandemic (Tamoliune et al., 2023), digital and green transitions (Cedefop, 2022), and the changing nature of work (Brown & Michil, 2022), has led to significant life and job disruption and changing skills needs. This prompts the need for periodic, just-in-time reskilling and upskilling of the workforce (World Economic Forum's, 2020). As a result, there is a growing demand for short, flexible, and personalized learning options that can address emerging labor market and societal needs (Leong et al., 2020). Micro-credentials have emerged as an adaptive response for universities to offer more flexible learning pathways to adult learners (Gauthier, 2020; McGreal & Olcott, 2022), without necessarily replacing traditional credentials (Shapiro et al., 2021). Therefore, micro-credentials can be a complement, substitute, or component of traditional qualifications (Brown & Michil, 2022) and provide a way to certify competencies acquired through life experience, work, or study (Cedefop, 2023).

Micro-credentials have emerged as a global trend that is expected to continue growing in the post-pandemic years (Brown et al., 2021; Leong et al., 2020). However, the lack of a shared definition and the use of multiple forms has led to ambiguity about its definition among universities, employers, providers, policymakers, and learners (Oliver, 2019). To reduce it, the Council of the European Union recommended the adoption of a European approach for micro-credentials, defining them as "the record of the learning outcomes that a learner has acquired following a small volume of learning. These learning outcomes will have been assessed against transparent and clearly defined criteria. Learning experiences leading to micro-credentials are designed to provide the learner with specific knowledge, skills and competencies that respond to societal, personal, cultural or labour market needs" (European Union, 2022, p.27).

In recent years, a significant body of literature has explored the potential opportunities raised by micro-credentials, including their use in post-COVID-19 recovery and higher education (Selvaratnam & Sankey, 2021; Tamoliune et al., 2023; Thi Ngoc Ha et al., 2022). Research has focused on multiple perspectives, such as employers, higher education leaders, students, and providers (Gauthier, 2020; Oliver 2019; McGreal & Olcott, 2022) but overall the voice of learners has been mostly scarce (Brown & Michil, 2022; Bruguera et al., 2022), although micro-credentials are primarily intended to fulfil the learning needs of individuals (Saphiro et al. 2021). To understand the value and benefits of micro-credentials for learners, more learner-based empirical data is needed (Thi Ngoc Ha et al., 2022). The objective of this paper is to identify what learners expect from micro-credentials. The study seeks to answer two main research questions: 1) What motivates learners to pursue micro-credentials? and 2) What are learners' preferences for micro-credentials?. Exploring what learners want and expect from short learning experiences will enable universities and policymakers to provide and promote better learner-centric offerings.

Methodology

This research employs a mixed-method methodology to assess students' perspectives on micro-credentials. A concurrent embedded design, which combines quantitative and qualitative data collection, is employed (Creswell, 2009). Qualitative research was conducted through a synchronous online focus group, enabling an open discussion designed to obtain rich qualitative data from learners' views (Fàbregues et al., 2016). The quantitative research was implemented through an online survey, which collected quantitative data about the motivations and preferences of focus group participants (Fink, 2017). Qualitative data was given priority in interpreting participants' view on micro-credentials, while the survey provided additional numerical data on socio-demographics and specific opinions of participants. The interview script and questionnaire items were based on a sound conceptual foundation derived from a systematic review of the literature on learners' perspectives developed by the authors as an output of the Erasmus + project "Modularisation for Continuing Education and Microcredentials" (Bruguera et al. 2022), which serves as the framework for this research.

Participants for this study were selected through intentional sampling (Babbie, 2013) from a population consisting of adult learners who had taken short courses at the Open University of Catalonia (UOC) between 2017-2021, including seminars and professional courses. The UOC is a fully online university that utilizes innovative teaching methodologies and technology to deliver high-quality education. A total of 37 alumni from continuous education programs at UOC were included as participants. The researchers ensured the privacy and anonymity of the participants, and participants signed a consent for their anonymized data to be used for research purposes. Jointly with the consent form, they received a brief questionnaire to be filled out before the interviews. Focus group sessions were conducted through the Zoom platform during the second semester of 2022. Interview transcriptions were analysed using thematic analysis (Given, 2008, p.868). ATLAS.ti 22 was used for the qualitative analysis, following Friese et al. (2018) recommended steps and the iterative validation process of Creswell (2009) to ensure reliability. Descriptive statistics were used to present the survey data.

Results

Results are presented below, categorized by themes identified in the qualitative analysis.

Socio-demographic information of participants

Most of the participants were middle-aged workers with completed university degrees or master's degrees (Table 1). More women than men took part in the study. The participants came from a diverse range of professions

including health workers, computer scientists, civil servants, or secondary school teachers. Most of them were working, either full or part time, and a significant share were studying while working. All participants had experience with online education.

Table 1: Participants socio-demographics

Age (years)	Recount	%
25 or less	0	0%
26-35	5	12,2%
36-45	11	26,8%
46-55	21	51,2%
56-65	4	9,8%
66 or more	0	0%
Gender	Recount	%
Men	13	31,7%
Woman	26	63,4%
Other	2	4,8%
I prefer not to say	1	2,4%
Highest degree of training achieved	Recount	%
Primary	0	0%
Secondary	0	0%
Baccalaureate	4	9,8%
Bachelor degree	21	51,2%
Master degree	12	29,3%
Doctorate / PhD	0	0%
Vocational training	4	9,8%
Professional status	Recount	%
Studying full time without working	1	2,4%
Studying part-time while working	16	39,0%
Working	19	46,3%
Unemployed	3	7,3%
Inactive	2	4,9%

Learners' motivations for micro-credentials

Table 2 provides a summary of participants' level of familiarity with micro-credentials and their main reasons for enrolling in them.

Table 2: Learners' motivations for micro-credentials (* percentage of total responses)

Are you familiar with micro-credentials?	Recount	%

No	22	55%
Yes	18	45%
Motivations to participate in micro-credentials	Recount	% *
For the pleasure of learning new things	25	17,9%
Keep up with my occupation	23	16,4%
Improve my employment situation	20	14,3%
Make my skills more visible to employers	19	13,6%
Explore new fields	17	12,1%
For personal curiosity	12	8,6%
Change job	11	7,9%
Find a job	4	2,9%
Meet new people	4	2,9%
Enter a "long" training	4	2,9%

Over half of the participants were unaware of the term "micro-credentials" prior to their participation in the study. However, upon being presented with its definition, several participants were able to relate the term to the short, accredited courses they had completed previously. To provide further illustration, opinions from the learners have been included in quotation marks.

"I came across the term 'micro-credentials' in your email and decided to search for its meaning. From my understanding, micro-credentials refer to short courses that can be accredited. However, I was initially confused as some short courses may not have certification."

A large majority of answers are related to professional career advancement, professional development, and employability. However, the primary drivers for learners to pursue micro-credentials are motivated by personal curiosity, learning something new or exploring an unfamiliar field.

"My main motivation for continuing my training throughout my life, as long as my skills allow it, is personal satisfaction. I am a curious person who enjoys learning."

Many adult learners enrol in micro-credentials to fill the gaps in knowledge and skills required in their professional disciplines that were not covered in their initial training.

"Both for me personally and for my profession, lifelong learning is very important. It is essential to stay updated because those who fall behind lose their jobs quickly."

Senior learners, that is, professionals with several years of experience in their professional fields, see micro-credentials as a good solution for their career progression, being a way to gain essential expertise and skills that can help them promote or gain greater recognition in their current positions.

"For any type of promotion at work, it is essential that my training is accredited. This increases my chances of being considered for higher positions than the one I currently hold."

Junior learners, meaning professionals with little or no experience in their professional fields, view the certification aspect of micro-credentials as a useful way to demonstrate their skills to potential employers and companies.

"Often, even if you possess certain skills or competencies, they may not be valued unless you have a document that proves you have been taught by a recognized institution."

Micro-credentials can also serve as a means for senior learners to experiment and venture into new fields or professional areas, enabling them to assess their level of interest. This could potentially serve as a gateway to longer training opportunities.

"The motivation behind taking these short-duration training courses for me is like taking a pill, a way to test my level of interest in the subject. If it meets my expectations, then I can decide to delve further into the subject."

Learners' preferences for micro-credentials

Research participants' preferences for micro-credentials are summarized in Table 4

Do you prefer a course...	Recount	%
Online	31	70,5%
Face-to-face	1	2,3%
mixed	12	27,3%
If online, do you prefer a course...	Recount	%
Asynchronous: you connect when you have availability	23	63,9%
Synchronous: you connect at the same time as your teachers / classmates	7	19,4%
Mixed	6	16,7%
Ideal length (months)	Recount	%
Less than 1	6	13,3%
From 1 to 2	8	17,8%
From 2 to 3	17	37,8%
From 3 to 4	4	8,9%
From 4 to 5	2	4,4%
From 5 to 6	5	11,1%
More than 6	3	6,7%
Ideal schedule	Recount	%
Morning	3	7,7%
Afternoon	16	41,0%
Night	10	25,6%
Weekend	10	25,6%
Ideal dedication	Recount	%
Full time	2	5,3%
Part time	36	94,7%
Hours a week dedication	Recount	%
1-5	11	27,5%
6-10	10	25,0%
11-15	12	30,0%

16-20	6	15,0%
21-25	1	2,5%
Preference for credentials	Recount	%
Credentials are preferred / crucial	35	94,6%
Credentials are not essential	2	5,4%

Most participants have positive prior experiences with online learning, so they tend to prefer online micro-credentials. This allows adult learners to study at their own pace, enabling them to balance their studies with other commitments such as work, family, and personal time. For senior learners, face-to-face courses are seen as time-consuming and conflicting with their schedules.

"At times in my life, I may have preferred in-person interactions, but once virtual options became available, I embraced them. This allowed me to overcome time, travel, work, family, and other obstacles that previously hindered my participation."

While asynchronous modalities are typically preferred, especially among older learners, many participants also value a blended approach that incorporates both asynchronous course material and occasional synchronous sessions. This allows for real-time resolution of doubts and fosters interaction with instructors or peers.

"I believe that online training is ideal for this type of learning, with a synchronous component that allows for real-time interaction with teachers to address questions and delve deeper into the material. In my experience, synchronous learning enables participants to express their opinions and discuss topics that may not come up in pre-recorded masterclasses."

Most learners prefer shorter courses that last 3 months or less, with an ideal duration of 1-2 months. However, if a course is interesting for them, learners may opt to do another one or even a longer-term training like a degree.

"In my opinion, short courses should not last longer than 2 or 3 months. I have specific needs that require quick solutions."

The majority of participants view the option to modularise micro-credentials into basic, intermediate, and advanced levels positively. It enables them to select a suitable level based on their profile and skill level and allows them to build knowledge and skills incrementally towards their desired level of expertise.

"I prefer a program with continuity, where completing each course would lead to a degree or credential. This way, you can work towards a global degree gradually. I prefer this to a Master or Postgraduate program where you have to complete all courses at once."

Different learners value official course credentials for various reasons. Junior learners often prioritize certification to boost their employability,

"I believe that certification is important because it guarantees to the companies the level of knowledge that has been acquired, among other things."

Senior learners may use credentials for promoting or improving their working conditions. Generally, they are willing to pay more for courses that offer official credentials, relative to courses without them, although some of them find micro-credentials expensive in the long run.

"I understand that there is a clear drawback with micro-credentials, such as the pricing per credit. However, I value the specialized and targeted nature of the training, and therefore don't mind paying more. Because that system is also very respectful of my career and my needs."

In contrast, adult learners who want to explore different topics, disciplines or learn for personal reasons may not necessarily require a course that comes with official credentials

"I don't place much importance on accreditation for my current professional situation. However, as life is unpredictable, my priorities may change. As the head of a unit, the opportunity to advance to a higher position as the head of a department requires a degree, which I currently do not possess due to my previous diploma-level training. I see value in accreditation, as it may enhance my opportunities."

Conclusions

This study uses both qualitative and quantitative methods to gather data on learners´ motivations and preferences for micro-credentials, addressing a gap in the literature for empirical qualitative data (Bruguera et al., 2022; Tamoliune et al., 2023).Through focus groups and questionnaires, our findings reveal the following conclusions. First, despite several efforts made by organizations such as the Council of the European Union (2022), the term "micro-credential" remains relatively unknown or ambiguous among students (Laryea et al., 2021).

Second, results highlight that adult learners have diverse drivers for seeking micro-credentials, emphasising the need and opportunity for universities to offer micro-credentials that cater to these various needs. There are two distinct and complementary groups of motivations for adult learners to pursue micro-credentials, namely: personal and professional, in that order, with social and academic motivations, playing a much smaller role. While the debate on micro-credentials has been mostly framed in the context of labour market objectives (Gauthier, 2020), intrinsic drivers, such as the pleasure of learning new things, appear as the most cited driver in our study.

Third, this research sheds some light on learners' preferred formats for micro-credentials, a topic for which a dearth of literature exists (Thi Ngoc Ha et al., 2022). Results indicate that learners tend to prefer online, asynchronous, short (2-3 months), specific learning experiences, requiring between 6-15 hours of dedication, and that provide a credential. Nevertheless, due to the specific characteristics of the sample, prudence should be exercised in extending the findings to a broader population. This research contributes to positioning the learner's perspective at the centre of the ongoing debate on micro-credentials among employers, policymakers and learning providers, and it offers valuable insights for educational institutions seeking to create more learner-centric offerings.

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