

EMPOWERING RURAL LEARNERS: A MICRO-CREDENTIAL PROGRAM FOR SKILLS DEVELOPMENT

Sidah Idris

Faculty of Business, Economics, & Accountancy
Universiti Malaysia Sabah, 88400 Kota Kinabalu, Sabah
Email: syaidah@ums.edu.my

Kasim Hj. Mansor

Faculty of Business, Economics, & Accountancy
Universiti Malaysia Sabah
Email: kmansur@ums.edu.my

*Corresponding Author

ABSTRACT

A micro-credential learning can considerably improve rural learners' social mobility by making educational options more accessible, flexible, and focused. By addressing the unique problems that these communities confront, stakeholders may help to create a more inclusive and equitable educational environment that benefits both individuals and local economies. This innovation study aims to develop a platform to accommodate rural learners in occupational certification. The certificate will be awarded by an industry or professional association to an individual demonstrating designated knowledge, skills, and abilities in a particular occupation. This study started with conducting surveys and focus groups discussion to understand the specific needs and interests of rural learners. Collaboration with local educational institutions, NGOs, and businesses helped to collect information and resources. The pilot study with a small group of learners aims to gather feedback and make necessary adjustments. This study expected to provide a platform that can provide learners with targeted, accessible education that meets their unique needs, such as equipping them with practical skills relevant to their community and fostering collaboration among learners to tackle local issues. The local community with local industries and organisations will match the in-demand skills such as agriculture, digital literacy, and entrepreneurship.

Keywords: Micro-credential, local media, social networks, community events, social mobility

INTRODUCTION

Micro-credential courses are exploits brief courses that can be taken by learners to obtain specialised competence in specific themes rapidly. They are different from conventional degree programmes based on credit accumulation and semester structure, and in many cases are competency based and modular in approach often catering for industry needs (Oliver, 2019). It is especially beneficial in such areas of practice as communications and multimedia where practitioners are under the constant pressure of a new technologies, applications, and ways of producing media content (Craig & Fenton, 2022). And as more forms of communication emerge beyond media and include social networks, podcasts, virtual reality, interaction, micro-credentials are timely and relevant, reflecting the dynamics and tempo of this industry (Boud & Jorre de St Jorre, 2021).

The demand for specialized training in the communications and multimedia fields has increased due to new innovations and changes in the market (Goodyear, 2021). Since media content production, distribution, and consumption are shifting their grounds with emergence of digital platforms, the professional is always challenged to match for competency skills for qualifying in job market (Ramdani & Bawa, 2020). In this regard, and as a growing trend for staff development, micro-credential courses can address skills development needs of individuals to excel in certain areas including but not limited to digital storytelling, content creation and multimedia communications.

Thus, the importance of micro-credential courses is currently on the rise while there is still limited systematic research related to the efficacy of such courses for developing the competencies necessary for the communication and multimedia professions. Although some analyses on microcredentials focused on the remedial role of these certification programmes in developing technical aptitude (Ferguson, 2020), there is inadequate empirical insights on how these outcomes influence professional characteristics like creativity, collaboration, and strategic communication. This article thus seeks to fill this gap by exploring how micro-credential courses develop technical and soft skills within communications and multimedia industries and hence enhances career and workforce advancement.

The presented studies showed that it is possible to use micro-credentials as instruments for skills improvement in the mentioned fields such as digital content creation, multimedia production, and strategic communications (Oliver, 2019; Lemoine & Richardson, 2021). In addition, their self-employment increased as well as improved their self-confidence regarding the occupation and the use of new technologies as well. It offers an argument that has to do with the rise in the importance of micro credentials as types of professional learning and also a continuation of best practices to improve the design and delivery of such courses for current and future needs of the field. This study aims to find out how the micro-credential course enhances the technical and the interpersonal competencies required by the industry. The study used an open-ended self-administered questionnaire, in which the respondents participated in answering the questions.

The objectives of this study are:

- i. Encourage life-long learning among community.
- ii. Encourage local community to improve skills based on focus industry in their area.
- iii. Encourage local community in rural area to access with advance knowledge and the tools they need to improve their livelihood and to improve their quality of life.

Therefore, conclusions made from this study shall be utile in establishing and unfolding the part played by micro credentials in education and skills development in a world that is highly computerised. Besides, this study will share findings on the micro-credential experiences of learners and educators in order to provide recommendations for the design and delivery of target communications and multimedia industry micro-credential courses.

LITERATURE REVIEW

Introduction Of Micro-Credentials

Courses that are presented in the form of micro-credentials are also known as digital badges or nano-degrees and present a specialised form of learning which shows mastery of a specific set of competencies. These short and structured learning programmes enable learners to obtain specific competence and knowledge in an area of study, which, initiated in the form of a modular course, smoothes the development of a portfolio at one's own pace (Thakkar, Murphy, & Diwakar, 2020). Sharper signal than traditional degrees, micro-credentials are stackable and build up to form the whole qualifications progressively (Ab Jalil et al., 2020). In Malaysia, these programmes are accredited by the Malaysian Qualifications Agency (MQA) since these programmes are flexible in order to build up the various skills and qualifications needed for certain professions, as stated by MQA (2020).

Importance In Education and Industry

The analyse of the current state of micro-credentials show that their significance is increasing to the present days especially due to the impact of technology and modern labour market. It becomes increasingly difficult for traditional accreditation to address new shifts in these expectations as they evolve quickly which micro credentials provide a fix. As Carey and Stefaniak (2018) pointed out, micro credentialing is a major way in lifelong learning and career growth. Their importance was in even further spotlight as the COVID-19 pandemic changed unemployment status and people started seeking ways to upskill and reskill using the internet (Pickard, 2021).

Micro-credentials have been most beneficial in areas like communications and multimedia and applications. Leaser & Kumar (2022) identified that micro-credentialing, led to increased professional confidence and technical competence among working professionals. These certifications have gradually gained credibility as valid signifiers of relevant skills which are essential to organisational performance (Ferguson et al., 2019). The notion of micro credentials has slowly emerged from the use of digital badges for informal learning which were previously used in games to represent awards. From the year 2000, MIT and Mozilla foundation for instance initiated the issue of badges to commemorate learning achievements (Gibson et al., 2015). This practise extended to formal education and terrace into micro-credentials which was used to credentialize competencies and enhance flexible learnability. Critical advancements in technology especially in the genres of communication and multimedia have also advanced the trends of micro-credentialing in education faster (Deuze, 2006).

Integration with Traditional Education – Case of Malaysia

Micro-credentials offer learners one more approach to education that is modular and can be either alongside or further to the more traditional university programmes. From Fong, Janzow and Peck (2016), micro-credentials offer an adaptable framework that serves lifelong learning, and is perfect for the adult learning system, as well as professionals who want to gain new skills but cannot dedicate time for a conventional four-year degree. Furthermore, the new trends in offering digital credentials increase value and credibility of these certifications with the use of block chain technology (Grech & Camilleri, 2017).

Micro-credentials have been adopted in Malaysia as one of the measures towards educational improvements in line with lifelong learning as well as, market relevance. The Malaysian Ministry of Higher Education released the 2015-2025 Education Blueprint which focus on flexibility where micro-credentials will be relevant to lifelong learning policy (Ministry of Higher Education, 2019). Some Malaysian universities like Open University Malaysia and Universiti Kebangsaan Malaysia have adopted the micro-credential programme, coupled with stackable credits which lead to recognised qualifications (Ab Jalil et al., 2020). Another factor of importance is that micro-credentialing has adopted sector-wide partnerships to make sure that these micro-credential courses are relevant to meeting certain sectors' skill deficits; needed fields include cybersecurity or data analytics, according to recent sources (Othman et al., 2021).

Micro-credentials are distinct from other certification programmes in various ways. Consequently, degrees offer generalised knowledge, while micro-credentials are competency-based, and it offers the best solution for efficient and precise learning (Carey & Stefaniak, 2018). However, there are some concerns that persist relating to the validation of micro-credentials, and its acceptance in workplace, education institutions. Despite this, the stakeholders responsible in progress with regards to the establishment of the frameworks for adoption of micro-credentials with traditional educational systems (Lester, 2020).

Further, the relative openness and blurred modularity of micro-credentials makes them appealing to learners who cannot afford to leave a job or drop-out as they take full-time programmes. They are cheaper than direct instruction and since they can be delivered online the pace at which one acquires knowledge is flexible (Milligan & Kennedy, 2017). In addition, micro-credentials are much more flexible and individualised thus allowing learners to acquire specific competencies related to their occupations

(Hamel & Valant, 2019). This increase in marketability also aids in employability, as micro-credentials stand out as proof of passion to learn as well as proof of a certain set of skills (Carey & Stefaniak, 2018).

Social Mobility and Rural Learners

Social mobility refers to changes in an individual's or family's social and economic status across generations or within a lifetime. Traditional education systems have long been recognized as a key driver of upward mobility, with higher education offering access to better-paying jobs and improved living standards (Breen & Jonsson, 2005). However, barriers such as cost, time, and access disproportionately affect marginalized communities (Chetty et al., 2014).

Research has shown that education can increase social mobility by providing individuals social mobility and education are deeply intertwined, with learning opportunities acting as critical levers for economic and social advancement. with the skills and qualifications needed for economic and social advancement to align with industry needs (OECD, 2021; Brown et al., 2021). Though, access to quality education and resources is often uneven. Rural learners face specific barriers, such as limited access to higher education, fewer job opportunities, and sometimes inadequate internet connectivity (Chetty et al., 2014; Schafft & Jackson, 2010).

Micro-credentials offer targeted, flexible learning opportunities for acquiring specific skills or knowledge according to the adult learners especially in skills advancement and career development plan. The ability to upskill or reskill through micro-credentials aligns with the needs of rapidly changing job markets, offering pathways for workers displaced by automation or economic shifts (Brown et al., 2021). In addition, MC are particularly suited for adult learners who face time and financial constraints in pursuing traditional educational pathways (Oliver, 2019). Micro-credentials hold promise in enhancing social mobility for adult learners by addressing some of the barriers inherent in traditional education systems.

Hudson and Hughes (2021) stated in a case of rural learners, the flexibility and online accessibility of MCs make them an attractive option for gaining skills without needing to relocate. However, challenges remain regarding digital literacy, technological infrastructure, and awareness of available programs. This study provided insights into how MCs can bridge digital divides in education for remote communities.

Challenges in Implementing Micro-credential Learning for Rural Learners

Social mobility and micro-credential learning for adult learners are increasingly interconnected topics in education, labor markets, and public policy. Infrastructure challenges like reliable internet and digital devices hinder MC learning in rural areas. Moreover, limited institutional support can also prevent rural students from fully benefitting from MC programs. Previous study by Roberts and Green (2013) examined the social justice aspects of providing equitable education in rural settings. In addition, Selwyn and Facer (2014) also critically examined the effectiveness of digital learning as a tool for social mobility.

However, Micro-credentials may lack the credibility of traditional degrees in certain industries (Oliver, 2019). Employers may undervalue micro-credentials compared to established qualifications, limiting their impact on long-term mobility. In addition, under programs require robust quality assurance and alignment with broader education and labor market policies to ensure they benefit disadvantaged groups (UNESCO, 2022). Micro-credentials often require ongoing updates to stay relevant to rapidly changing job markets. This can strain providers and challenge long-term sustainability (Whelehan & Moodie, 2021).

METHODOLOGY

In order to determine whether micro-credential courses have benefited skills in local industry, a quantitative approach was used. The information gathered from a self-completed survey, which is obtained from an interview guided-format. The component analysis for this study was individual. Individuals of worker who stay in Ranau, Kudat, and Pitas Sabah were the participants of this study. This study applied purposive sampling method.

Human capital theory applied into this study. This theory suggested that education and skill acquisition are key factors in achieving upward mobility. The theory also mentioned that investments in human capital such as training and education lead to better economic outcomes. Studies show that higher education levels correlate with lower unemployment rates and better health outcomes (OECD, 2021). Human Capital Theory is a framework in economics and social sciences that views individuals' skills, knowledge, and abilities as forms of capital, similar to physical or financial assets. This theory emphasizes the role of education, training, and experience in enhancing productivity and earning potential, thereby benefiting both individuals and society. This study used the software Statistical Package for Social Science version 26 (SPSS 26).

Survey Instrument

The proposed self-completed survey questionnaire was used for the primary data collection instrument aimed at assessing the respondents' attitudes toward the micro-credential courses in communications and multimedia. The questionnaire was an open-ended question which collected information from the respondent as below:

i) Demographic Information

In this section, the data pertaining to the personal characteristic of the respondents including age, gender, educational level, locality and professional experience in the Communications, multimedia sectors were obtained. Collection of demographic information assists in the process of checking the generalisation of the sample from the target population (Saunders et al., 2019).

ii) Possible Curriculum Of The Course

Micro-credential courses in facilitating the development of skills in communications and multimedia, a mixed-methods approach was employed. This approach combines quantitative data collected through a self-administered questionnaire with qualitative

insights gathered via semi-structured interviews. Such an integrated design allows for a more comprehensive understanding of both the measurable outcomes of micro-credential courses and the subjective experiences of the participants (Creswell & Clark, 2018).

Sampling Strategy

For the purpose of this study, the participants were selected through purposive sampling whereby participants needed to have had participated in micro-credential Courses in Communications and Multimedia. This method was used to avoid getting responses from participants with little knowledge and understanding of the subject area (Palinkas et al., 2015). The sample sourced participants from professional organisations, online learning communities, and holding institutions for micro-credential programmes. The potential respondents were emailed an invitation to participate in the study and given more information concerning its purpose and the ethical issues inherent with the study, in particular, informed consent and anonymity.

DATA ANALYSIS AND DISCUSSION

The quantitative data collected from the completed questionnaires were statistically described to summarise the results and describe the pattern of responses. This form of analysis was especially helpful in getting detail the personal feelings and points of view of the respondents. The findings from complete survey through direct interview with respondents were analyzed. The process going through the inputs for several times to understand the overall data before categorising the data into major themes including courses required, industry relevance, and transferability of skills.

Gender Distribution

The majority of respondents are female, indicating a higher representation of women compared to men in this study. The total of 52 respondents, 19 percent or 10 respondent male and 81 percent (42 respondents) female. The respondents fall within the age range of 23 to 35 years. This suggests that the study primarily involves young adults, likely in the early stages or mid-phase of their careers. The educational qualifications of the respondents range from Sijil Pelajaran Malaysia (SPM) to a bachelor's degree. This indicates a diverse group in terms of academic achievement, encompassing individuals with secondary education and those with tertiary-level qualifications. A significant proportion (92%) of respondents are employed. This reflects a high employment rate among the participants, which may suggest economic stability or active workforce engagement within the group.

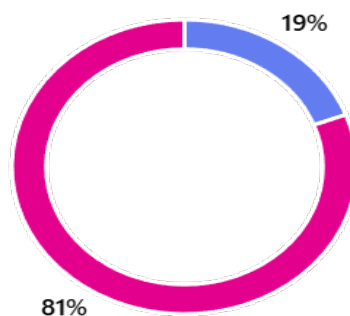


Figure 1: Gender and Number of participants

In this study, the questions divided into categories:

- a. Intention questions.
- b. Plan to advance the career and knowledge.
- c. Problems & Issues
- d. Propose for advancement:

The finding summary for these questions as below:

Table 1: Summary of Responses

Questions	Results
Adakah anda bercita-cita untuk meningkatkan kerjaya?	100% Agreed
Bagaimana anda ingin mencapai cita-cita anda?	75% answered to further their study
Adakah anda ingin belajar lagi untuk meningkatkan ilmu dan kerjaya anda?	100% Agreed
Jika mendapat peluang untuk belajar dan bekerja dalam satu masa yang sama adakah anda ingin mengambil peluang berkenaan?	100% Agreed
Adakah anda pernah mendengar berkenaan kursus kelayakan micro?	46% Yes and 54% No

<i>Jika ada kursus micro ini ditawarkan, adakah anda berminat untuk mengikutinya?</i>	100% Agreed
<i>Apakah halangan di dalam mengikuti kursus kelayakan micro di kawasan anda?</i>	92% - Internet connection 2% - Far from city 3% - Technology limitation 3% Others
<i>Jelaskan adakah teknologi dan multimedia penting di dalam mengikuti kursus kelayakan micro?</i>	100% Agreed
<i>Jelaskan adakah teknologi dan multimedia penting di dalam mengikuti kursus kelayakan micro?</i>	100 Agreed
<i>Terangkan berkenaan keperluan teknologi dan multimedia di kawasan anda agar kursus kelayakan micro ini dapat diikuti oleh orang awam yang ingin meningkatkan ilmu mereka.</i>	88% Improve the internet connectivity 10% Improve the multimedia technology 2% Others

Therefore, from the findings of this study, the importance of technology and multimedia must go hand in hand to promote lifelong learning. This study also found that there are differences in needs among employees in improving their skills. In addition, the uncertainty regarding the Micro-credential course also contributed to the motivation of this study. Research on increasing access to the study system or the opportunity to improve skills in the latest methods such as through micro-credential should be given exposure.

LIMITATION AND SUGGESTION FOR FUTURE RESEARCH

This study identified limitation and challenges which need to overcome in future research. The main concern is about whether micro-credentials alone can dismantle systemic barriers to mobility (Allais, 2020). This study also found that it has long shown that education can increase social mobility by providing individuals with the skills and qualifications needed for economic and social advancement. However, access to quality education and resources is often uneven. In addition, for rural learners the flexibility and online accessibility of MCs make them an attractive option for gaining skills without needing to relocate. However, challenges remain regarding digital literacy, technological infrastructure, and awareness of available programs. Therefore, to overcome these challenges this study proposed through policy interventions to expand MC accessibility in rural areas by improving digital infrastructure and incentivizing institutions to develop MC programs geared toward rural learners.

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