# Beyond Traditional Credentials: Exploring Opportunities for Micro-Credentials to Support Lifelong Learning Among Women in Northern Nigeria - Initial Findings

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## Abstract

This paper presents initial findings on the transformative potential of micro-credentials as an alternative approach to promoting lifelong learning among women in Northern Nigeria. It addresses the limitations of traditional credentialing systems, which often fail to consider the socio-cultural and economic realities of women in this region. Despite growing global recognition of non-traditional learning pathways, women in Northern Nigeria continue to face significant barriers, including limited access to formal education and entrenched gender norms. Using a qualitative approach, twelve in-depth interviews were conducted with women aged 18 and above, who are literate in English, across four educationally disadvantaged states. Descriptive statistics and thematic analysis were employed to analyse quantitative and qualitative data respectively. The findings reveal that while micro-credentials are valued for their flexibility and potential to enhance economic participation, challenges such as digital illiteracy, infrastructural deficits, socio-cultural constraints, and concerns about credential legitimacy persist. The study underscores the need for localized, inclusive, and community-driven micro-credential initiatives. It recommends that policymakers support programmes that address digital skills gaps, infrastructure limitations, and gender-specific barriers in order to empower women through flexible, community-based lifelong learning opportunities.

**Key words:** Digital badges, Gender equality, Lifelong learning, Micro-credentials, Traditional credentials

## Introduction

Lifelong learning has become an indispensable tool for empowerment, social inclusion, and economic development in the 21st century (UNESCO, 2016). However, for many women in Northern Nigeria, access to continuous learning opportunities remains elusive due to deeply rooted cultural norms, economic constraints, early marriage, and limited mobility, all of which hinder their participation in formal education systems (Adewale et al., 2018; Yusuf & Balogun, 2020). Traditional credentials, which are often characterised by rigid curricula, long time commitments, and centralised delivery models, do not accommodate the unique realities of women in this context. These conventional systems frequently fail to recognise informal and non-formal learning, particularly the kinds of knowledge and skills that many women acquire outside formal institutions, such as in entrepreneurship, healthcare, and community development (UN Women, 2020).

This paper addresses a significant gap in literature and practice: the under-exploration of micro-credentials as viable mechanisms for lifelong learning among underrepresented female learners in Northern Nigeria. While global discourse has increasingly recognised the relevance of non-traditional learning credentials, limited empirical research exists on how these tools can be localised to meet the educational needs of marginalised groups, especially women in low-resource settings (Oliver, 2019; Ifijeh & Yusuf, 2020). The gender dimension is critical here, as women continue to face compounded forms of exclusion in accessing digital tools, acquiring relevant skills, and receiving formal recognition for competencies acquired outside mainstream education systems (World Bank, 2022).

Technological innovations such as micro-credentials offer a promising pathway to address these gendered challenges. These digital learning tools provide modular, flexible, and verifiable certification of specific competencies, enabling women to learn at their own pace, in their own time, and often from within their own communities (Gauthier, 2020). For instance, micro-credentials can be used to certify proficiency in skills such as tailoring, digital literacy, financial management, or coding, skills that are directly linked to economic empowerment and social mobility. Because they are portable and stackable, micro-credentials offer women the ability to build learning progressively, often without the need to enroll in full-time or long-term academic programmes (Brown et al., 2021). This makes them especially relevant for women who juggle multiple responsibilities or who have previously been excluded from formal education.

Furthermore, these innovations emphasise inclusivity by recognising diverse learning pathways and reducing the credentialing gap that often marginalises learners from non-traditional backgrounds. When implemented with gender-sensitive design, such as offering content in local languages, ensuring mobile accessibility, and aligning with community-relevant skills, micro-credentials can become transformative tools for overcoming educational inequality (UNESCO, 2020). The integration of such credentials within local education frameworks, supported by public-

private partnerships and awareness campaigns, can thus contribute significantly to achieving SDG 4 (inclusive and equitable quality education) and SDG 5 (gender equality).

Therefore, this paper contributes to the ongoing discourse on educational innovation by situating micro-credentials as inclusive tools for promoting lifelong learning among women in Northern Nigeria. By addressing the gender-specific barriers to learning and leveraging technology to create adaptable and accessible pathways, this paper highlights the potential of digital certification systems to support women's empowerment and reduce educational inequalities.

**Conceptual Clarification**

**Traditional Credentials:** Traditional credentials, such as diplomas, certificates, and degrees, have long served as formal evidence of educational achievement and professional competence. Typically awarded by accredited institutions after the completion of a structured curriculum, these credentials are widely recognized by employers, governments, and academic institutions (Oliver, 2019). They signify not only subject-matter knowledge but also the commitment and discipline of the learner, and often serve as a gatekeeper for access to employment, further education, and social mobility (UNESCO, 2016).

However, the rigidity of traditional credentialing systems poses challenges, especially for non-traditional learners, such as women in under-resourced regions. These credentials usually require full-time study, in-person attendance, and long durations of engagement, conditions that many adult learners, especially women with familial and economic responsibilities, find difficult to meet (Ifijeh & Yusuf, 2020). Moreover, traditional credentials often fail to capture informal learning, short-term training, or skill acquisition outside the classroom, thereby marginalizing a significant portion of the population whose knowledge and abilities remain unrecognized (Gauthier, 2020). As economies evolve rapidly and demand new, dynamic skill sets, the limitations of traditional credentials highlight the need for more flexible, accessible, and inclusive systems of recognizing learning achievements.

**Micro-Credentials**: Micro-credentials are short, targeted learning experiences designed to equip learners with specific skills or competencies without the need to enroll in full-degree programmes. They are increasingly recognised as flexible and personalised alternatives to traditional education, especially valuable in rapidly evolving job markets that demand upskilling and reskilling (Oliver, 2019). Micro-credentials can be earned through various online platforms, universities, or professional training bodies and are often stackable, meaning multiple micro-credentials can build towards a larger qualification (Wheelahan & Moodie, 2021).

These credentials are particularly useful in addressing skills gaps and enhancing employability, as they allow learners to demonstrate mastery of discrete competencies relevant to specific industries, such as digital literacy, business analytics, or coding (UNESCO, 2021). For women in

underrepresented regions like Northern Nigeria, micro-credentials offer an opportunity to overcome traditional barriers to education, such as time constraints, mobility issues, and socio-cultural expectations (Ifijeh & Yusuf, 2020). By offering modular, on-demand learning that fits into learners' personal and professional lives, micro-credentials promote lifelong learning and educational equity. They also provide formal recognition for informal or experiential learning, making them inclusive tools for learners whose competencies may otherwise go unnoticed (Brown et al., 2021).

**Lifelong Learning**: Lifelong learning refers to the continuous, voluntary, and self-motivated pursuit of knowledge for personal or professional development across an individual's lifespan (UNESCO, 2016). It encompasses formal, non-formal, and informal learning activities, enabling individuals to adapt to rapidly changing job markets, technological advancements, and evolving societal demands (OECD, 2019). In today's knowledge-based economy, lifelong learning is critical for developing a resilient, skilled, and inclusive workforce (European Commission, 2020). Lifelong learning is particularly crucial in addressing educational inequalities and promoting social inclusion, especially for underrepresented groups such as women in Northern Nigeria, who often face gendered barriers to traditional education. These include cultural norms, early marriage, poverty, and restricted mobility (Aderinto, 2021). By offering flexible and accessible learning pathways, lifelong learning initiatives can empower women with relevant skills for employment and entrepreneurship, contributing to gender equality and sustainable development (UNESCO, 2021).

## Literature Review

### Theoretical Framework - Transformative Learning Theory (Jack Mezirow, 1991)

The analysis in this paper is grounded in the framework of Transformative Learning Theory, developed by Jack Mezirow in 1991. The theory focuses on the profound shifts that occur in an individual's perspective and worldview through critical reflection and learning. Transformative learning is centered around the process of questioning previously held assumptions, acquiring new knowledge, and adapting to evolving societal roles. This theory is particularly relevant in the context of empowering women in Northern Nigeria, where socio-cultural and economic challenges often limit access to traditional forms of education. By enabling women to engage in alternative learning pathways such as micro-credentials and digital badges, transformative learning offers a means to challenge these barriers and foster personal and societal growth.

The relevance of this theory lies in its focus on empowerment through learning. It posits that education can lead to profound changes in an individual's self-perception and their role within society. In Northern Nigeria, many women face substantial obstacles to formal education due to cultural norms, economic constraints, and gender-based expectations. Micro-credentials provide an opportunity for women to acquire skills and knowledge that are directly relevant to their needs, without the constraints of traditional education systems. This transformative process enables

women to take on new roles, both in the workforce and their communities, by breaking free from restrictive societal norms.

Furthermore, critical reflection and re-skilling are key elements of transformative learning. Micro-credentials and digital badges offer flexible, personalized learning experiences that encourage women to reflect on their skills and apply them in meaningful ways. These credentials provide a sense of autonomy, allowing women to assess their learning, gain new competencies, and explore alternative career paths, thus fostering a sense of agency and empowerment.

Finally, transformative learning is inherently aligned with lifelong learning. The theory supports the notion that learning should be a continuous, evolving process. Micro-credentials, with their modular and flexible structure, fit seamlessly into this model, enabling women in Northern Nigeria to engage in lifelong learning and continually upgrade their skills. This aligns with the broader societal need for ongoing re-skilling and adaptation, particularly for marginalized groups seeking to navigate an ever-changing socio-economic landscape.

**Gendered Educational Disparities in Northern Nigeria**

In Northern Nigeria, the disparity in educational access between men and women is pronounced, with female literacy standing at only 47.7% compared to 71.3% for males, as reported by the National Bureau of Statistics (2022). This significant gap highlights the ongoing challenges that women in the region face in accessing education. Socio-cultural norms, including deep-rooted patriarchal values, often prioritize male education over female education, limiting the opportunities available to women (UNICEF, 2020). Additionally, early marriages and childbearing responsibilities disproportionately affect young girls, leading to high dropout rates and limiting their chances to continue formal education (Okeke & Nwachukwu, 2018).

Economic challenges further compound these issues, with many families prioritizing the education of boys due to limited financial resources, leaving girls with fewer opportunities for schooling (World Bank, 2022). In many rural areas, the lack of infrastructure, such as schools or safe transport, further restricts women's access to education (UNESCO, 2021). These barriers are exacerbated by gendered societal norms, which often deem women's roles as domestic caregivers and limit their mobility, making it difficult for them to pursue traditional schooling models that require physical attendance in educational institutions (Adamu, 2020).

Given these structural barriers, there is a critical need for educational alternatives that are both accessible and culturally relevant. Innovations like micro-credentials and digital badges present a flexible and scalable solution for addressing these challenges (Oliver, 2019). These alternatives allow women to learn at their own pace, in their own space, and without the rigid constraints of traditional educational systems. Such programmes can be designed to accommodate the specific needs of women in Northern Nigeria, enabling them to gain valuable skills while balancing familial

and social responsibilities (Patel & Ragupathi, 2020). These flexible learning models can therefore play a pivotal role in bridging the gender gap in education, offering women the chance to overcome the barriers they face in accessing formal education.

**Micro-Credentials as a Pathway to Inclusion**

Micro-credentials have emerged as a promising solution to the educational and economic exclusion experienced by many women, particularly in regions with limited access to traditional education systems. These short, stackable, and competency-based courses are designed to be flexible, accessible, and tailored to individual learners' contexts, providing an opportunity for marginalized groups to gain valuable skills without the time or financial investment required by traditional degrees (Oliver, 2019).

Unlike conventional educational models, micro-credentials focus on specific skills and knowledge, enabling learners to demonstrate their competencies in a way that is directly aligned with the needs of the workforce (Gibson et al., 2015). This form of credentialing offers several advantages, particularly for women in areas where socio-cultural and economic barriers hinder access to formal education. By offering modular learning options that can be completed at one's own pace, micro-credentials address the specific needs of learners who may have familial, work, or other social responsibilities (Patel & Ragupathi, 2020).

Research has shown that these credentials are highly adaptable to the unique circumstances of women in Northern Nigeria and similar contexts. Women who may be unable to attend traditional full-time programs due to childcare responsibilities or societal restrictions on mobility benefit from the flexibility of online and competency-based learning systems (UN Women, 2020). Furthermore, micro-credentials provide an avenue for women to reskill or upskill without needing to commit to years of formal education, thus fostering greater economic independence and opening up entrepreneurial opportunities (World Bank, 2022). By promoting lifelong learning, micro-credentials can bridge the skills gap that many women face, ultimately empowering them with the tools they need to improve their social mobility, financial stability, and overall well-being. They provide a scalable solution to educational exclusion and can contribute significantly to closing the gender gap in education and employment (OECD, 2021).

**Methodology**

This study adopted a qualitative approach. Data were obtained through in-depth interviews with twelve (12) women across Borno, Yobe, Adamawa, and Zamfara, the four educationally disadvantaged states in northern Nigeria (UNICEF, 2023). A purposive sampling procedure was used to select both the states and the participants. The inclusion and exclusion criteria outlined in Table 1 guided the selection of participants. The data collected were analyzed using thematic analysis to elicit meaningful patterns, insights, and findings from the participants' experiences and perspectives.

Table 1: Inclusion and exclusion criteria

| Criteria Category | Inclusion Criteria | Exclusion Criteria |
|---|---|---|
| Gender & Age | Female, aged 18 years and above | Below 18 years of age |
| Residency | Resident of Borno, Yobe, Adamawa, or Zamfara for at least 5 consecutive years | Not resident in any of the target states for 5 years |
| Educational Status | Ability to read and write in English language | Inability to read and write in English language |
| Learning Interest | Willing to engage in education, skills training, or digital learning | Uninterested in learning or resistant to micro-credentials/digital learning |
| Digital Access | Has access to use a smartphone/tablet or community resource for digital learning | No access to digital devices and unwilling to learn, even with support |
| Consent to Participate | Provides informed consent to participate | Unwilling to participate in the interview |

**Findings and Discussion**

The paper presents initial findings as it is part of an exploratory study intended to stimulate further dialogue and scholarly inquiry into the potential of micro-credentials to support lifelong learning among women in Northern Nigeria. Given the emerging nature of micro-credentialing in the Nigerian context, particularly among educationally disadvantaged populations, this study does not seek to provide definitive conclusions. Rather, it offers preliminary insights that can inform policy discussions, program development, and future research aimed at expanding educational access and economic opportunities for women through alternative, flexible learning pathways. The intention is to catalyze a broader conversation on how micro-credentials can be localized, recognized, and sustainably integrated into the lifelong learning ecosystem for marginalized groups in the region. Therefore, the initial findings from the study reveal several interrelated themes that shed light on the lived experiences, aspirations, and challenges of women from Borno, Yobe, Adamawa, and Zamfara regarding digital learning and micro-credentials.

A dominant theme that emerged was the perceived value of micro-credentials as practical and accessible alternatives to traditional education. Many participants saw micro-credentials as tools that could empower them to acquire marketable skills, such as tailoring, cosmetics, and digital entrepreneurship, without the rigid time and cost demands of university education. As one participant from Adamawa noted, *"I couldn't go to university, but if I can learn a skill online and get something to show for it, that's enough to help my family."* For women who were unable to complete formal schooling due to early marriage, poverty, or conflict, micro-credentials represented a second chance at self-improvement and economic participation. This aligns with

existing literature suggesting that flexible, skills-based learning models can address educational gaps in marginalized populations (UNESCO, 2023; World Bank, 2022; Yusuf & Afolabi, 2022).

However, this enthusiasm was tempered by significant barriers to access and participation. Socio-cultural constraints, particularly the need for spousal approval and gendered domestic responsibilities, were frequently cited as limiting factors. One woman from Zamfara explained, *"If my husband agrees, I will try it. But I cannot make such decisions on my own."* These findings echo existing research on gendered barriers to education in conservative contexts (UNICEF, 2023; Olaore, 2020). Infrastructural challenges such as poor internet connectivity, lack of digital devices, and high data costs further constrained women's ability to engage with digital learning platforms. A respondent from Borno said, *"Even when I wanted to learn something online, I had no data, and the connection in our village is always poor."* These challenges were more acute in rural and peri-urban areas, underscoring regional disparities in digital access and the digital divide as established by World Bank (2022).

A related theme was the digital literacy gap. While most participants owned basic mobile phones and were familiar with applications like WhatsApp, the majority had never used their devices for educational purposes. Concepts such as e-learning platforms, video tutorials, or online assessments were largely unfamiliar, indicating a clear need for foundational digital skills training as a precursor to introducing micro-credentials. One participant noted, *"I only use my phone to call and chat. I don't know how to use it to learn anything."* Nevertheless, many women demonstrated a strong motivation for lifelong learning. Their desire to become employable, support their families, and achieve financial independence emerged as key motivators. This reinforces the understanding of learning as a means of social and economic empowerment rather than merely academic advancement (UNESCO, 2016; Agyapong & Alemna, 2021).

Another critical finding was skepticism around the legitimacy and recognition of micro-credentials. Participants expressed concerns about whether employers or government institutions would recognize such certifications, especially if they were obtained from unfamiliar online platforms. One woman asked, *"Will any company accept this certificate if it's not from a school or government?"* Trust in the issuing institution, be it a reputable university, NGO, or government agency, was identified as essential for the credibility and acceptance of micro-credentials. This highlights the importance of institutional partnerships and standardization in scaling micro-credential initiatives (Oliver, 2019; OECD, 2021).

The theme of community-based support and peer learning was also notable. Many participants stated they would feel more confident and motivated to engage with micro-credentials if learning occurred in supportive group settings, such as women's associations, faith-based groups, or local community centres. A participant from Zamfara expressed, *"If other women in our group are also doing it, I will be encouraged to join."* This preference reflects the importance of collective

learning spaces in building motivation, confidence, and accountability (UNESCO, 2016; Agyapong & Alemna, 2021).

Finally, the issue of language and learning format preferences surfaced prominently. Most participants preferred instructional materials in Hausa or other local languages and showed a strong preference for audio-visual content over text-heavy formats. One participant remarked, *"I understand better when I hear or watch in Hausa. Reading too much English is hard for me."* This not only reflects literacy limitations but also cultural learning styles rooted in oral and visual knowledge transmission (UNICEF, 2023; Yusuf & Afolabi, 2022). This suggests the need for inclusive, culturally sensitive instructional design in the deployment of micro-credential programmes.

**Conclusion**

This exploratory study highlights both the potential and the challenges of micro-credentials in promoting lifelong learning among women in Northern Nigeria's educationally disadvantaged states. For participants in Borno, Yobe, Adamawa, and Zamfara, micro-credentials offered practical, flexible avenues to gain skills and economic empowerment, especially for those affected by early marriage, poverty, or conflict. However, barriers such as socio-cultural norms, limited digital literacy, infrastructural deficits, and doubts about the recognition of these credentials pose serious constraints. Despite these challenges, women expressed a strong desire for learning and self-improvement, underscoring the need for targeted, accessible, and context-sensitive micro-credential initiatives.

**Recommendations**

In view of the findings of this study, the following recommendations are made:

1. Design localised, skills-based micro-credentials in areas like tailoring, digital trade, and agriculture, using Hausa and audio-visual formats.
2. Address socio-cultural barriers by engaging men, leaders, and faith-based groups to build social support for learning.
3. Encourage peer learning through women's groups and local centers to foster motivation and reduce isolation.
4. Improve digital infrastructure via partnerships for affordable devices, internet access, and public learning spaces.
5. Ensure recognition and legitimacy by aligning with credible institutions and developing a national micro-credential framework.

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