

**The role of micro-learning and micro-certifications in bridging the skills gap in the
Jordanian labor market**

دور التعلم المصغر والشهادات المصغرة في سد فجوة المهارات في سوق العمل الأردني

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Send Article Date: 1 / 1 / 2026

Date of acceptance of the article: 1 / 3 / 2026

Abstract

This research investigates the transformative role of micro-learning and micro-credentials in addressing the structural skills mismatch within the Jordanian labor market. Despite high educational attainment, Jordan faces a persistent unemployment rate of 21.4% (Department of Statistics, 2025), largely driven by a disconnect between traditional academic outputs and private sector requirements. This study synthesizes data from national statistics, institutional frameworks like the Technical and Vocational Skills Development Commission (TVSDC), and digital platforms such as Edraak. The findings suggest that "bite-sized" modular learning offers a flexible, industry-aligned solution that enhances employability by documenting specific competencies. The research concludes that integrating micro-credentials into the national qualifications' framework is essential for achieving the targets of the Economic Modernization Vision 2033.

Keywords: Micro-learning, Micro-credentials, Skills Gap, Jordan Labor Market, TVET, Economic Modernization Vision 2033, Employability.

ملخص

تبحث هذه الدراسة في دور التعلم المصغر والشهادات المصغرة في معالجة فجوة المهارات الهيكلية في سوق العمل الأردني. فعلى الرغم من ارتفاع مستوى التحصيل العلمي، يواجه الأردن معدل بطالة مستمراً يبلغ 21.4% (دائرة الإحصاء، 2025)، ويعود ذلك في معظمه إلى الفجوة بين مخرجات التعليم الأكاديمي التقليدية ومتطلبات القطاع الخاص. تُحلل هذه الدراسة بيانات من الإحصاءات الوطنية، والأطر المؤسسية مثل هيئة تنمية المهارات الفنية والمهنية، والمنصات الرقمية مثل إدراك. وتشير النتائج إلى أن التعلم المعياري المُجزأ يُقدم حلاً مرئياً ومتوافقاً مع متطلبات سوق العمل، مما يُعزز فرص التوظيف من خلال توثيق كفاءات محددة. وتخلص الدراسة إلى أن دمج الشهادات المصغرة في إطار المؤهلات الوطنية أمرٌ ضروري لتحقيق أهداف رؤية التحديث الاقتصادي 2033.

الكلمات المفتاحية: التعلم المصغر، الشهادات المصغرة، فجوة المهارات، سوق العمل الأردني، التعليم والتدريب التقني والمهني، رؤية التحديث الاقتصادي 2033، فرص التوظيف.

Methodology

The methodology for this research utilizes a systematic qualitative synthesis and descriptive analytical approach to the study of the education to workforce transition in Jordan. The methodology will be broken down into four components as follows:

- 1. Data Collection** - A review of existing secondary data was conducted, which includes: (1) Labor force surveys from the Department of Statistics (2023-2025); (2) Strategic policy documents from the Technical and Vocational Skills Development Commission (TVSDC); and (3) The Economic Modernization Vision (EMV) 2033.
- 2. Academic Literature Synthesis** - The findings from literature published between 2014-2025 were analyzed according to the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) guidelines to identify global trends in micro-credentialing, and how they impact the MENA region.
- 3. Case Analysis of Institutions** - Case Analysis will assess specific models from Jordan, specifically: (1) The Edraak digital MOOC platform; (2) Luminus Technical University College (LTUC) (Employment Hub Model); and (3) National Sector Skills Councils (NSSCs).
- 4. Framework Mapping** - The competencies from the Ma'an labor market assessment (e.g. labor market assessment) will be mapped against proposed modular learning solutions to determine how effective micro-credentials are in bridging specific technical and soft-skill gaps.

1. Introduction:

The current global economy is experiencing a structural shift known as the 5th Industrial Revolution (Industry 5.0). This shift is causing the traditional, linear method of educating individuals to become less connected to real-time, ideal workforce demands. The currently identified skills gap between the capabilities of graduates and the competencies needed in the various industries has created a situation where multi-year degrees are not sufficient for quick pivots occurring through rapid technological advancements (Tan, 2025). Micro-learning refers to learning experiences that are short (i.e., 1 hr.-25 hrs.), focused and use a method called cognitive "chunking" to improve retention and reduce cognitive overload during learning (IIARI, 2025). Jordan, which has a very large youth population and very high unemployment of degree-holders, will not have the options of using these paradigms but will need to do so strategically (DOS, 2025; World Bank, 2025).

2. Analytical Framework: Micro-credentials as Verification Tools

Micro-credentials serve as a certification mechanism for modular learning through digitally verifiable and metadata-rich digital badge systems (CIMEA, 2023). In contrast to traditional transcripts, these digital records permit candidates to create a record of "invisible skills," such as critical thinking and technological literacy (Tan, 2025). As a result of this change, employers can adopt a "skill-first" hiring model that allows them to verify a candidate's level of mastery based on transparent criteria rather than on institutional prestige (OECD, 2024).

3. The Jordanian Labor Market: A Profile of Disconnect (2023-2025)

Jordan's labor market is hindered by distinctive structural rigidities. Average growth of just 2.5% over the past ten years coupled with a graduate unemployment rate of 25.8% in 2024 (DOS 2024, World Bank 2025) highlights this issue. Additionally, there's a critical gender-education paradox; 74.3% of females in labor have a bachelor or higher degree, however, their overall unemployment rate is almost 34% (DOS 2025).

In addition, many countries within the region, including Ma'an, report that "insufficient skills" are the most prevalent barrier to recruitment amongst employers; many of whom find that "soft skills" such as commitment and work ethic are especially lacking skill sets (Ministry of Labor [MOL] 2024). Overall, the results point to evidence suggesting that the educational system's focus continues to be on producing generalists; while, the labor market requires highly skilled technicians and professionally trained tradesmen.

4. Institutional Reform and the TVSDC Strategy

To address these gaps, the Technical and Vocational Skills Development Commission (TVSDC) was created by the Jordanian government via Law No. 9 of 2019 (TVSDC, 2025). The TVSDC's 2025 strategy will focus on the following:

- Sector Skills Councils (NSSCs) will be led by the private sector to identify skill priorities and will ensure that curricula meet industry standards (GIZ, 2025; Ministry of Labour [MOL], 2025).
- The National Qualifications Framework (JNQF) will assign micro-credentials standardised weight and will grant accreditation to smaller units of learning (UNESCO, 2024; TVSDC, 2025).
- The Dual System will move toward a theoretical and an intensive on-the-job training model (VTC, 2020).

5. Case Studies: Edraak and LTUC

Edraak Platform: The Edraak platform is a non-profit initiative developed by The Queen Rania Foundation which provides accessible, online, high-quality resources in Arabic for STEM education (Science, Technology, Engineering and Mathematics); Technology, and

Business. The Edraak platform aims to close the "knowledge gap" for youth with a particular focus on marginalized youth and refugees (Edraak, 2025; Wikipedia, 2025).

Luminus Technical University College (LTUC): The Luminus Technical University College (LTUC) employs a unique innovative model called an "employment hub" to counter cultural discrimination against non-traditional vocational pathways. The LTUC has partnered with companies, such as Carrefour, to create intensive training programs with the intent of providing students real-world experience in STEM & Technology Fields, while offering BTEC Level 5 Diplomas (Borgen Project, 2025; LTUC, 2021).

6. Challenges and Recognition Barriers

While there has been development over time at institutions of higher learning, there are still many challenges to be addressed. One challenge recruits face is whether micro-credentials will be viewed as valid as regular higher education degrees (Tandf, 2024). In addition, many traditional students and faculty do not fully grasp how these credentials can be stacked or built upon (Tan, 2025; ResearchGate, 2024). Finally, as an additional requirement in addition to developing quality assurance standards, provisions must also be made for the transferability of these new types of credentials internationally, which can be accomplished through JNQF (EHEA, 2023; ETF, 2023).

7. Conclusion

Combining micro-learning and micro-credentials provides Jordan with a unique opportunity to address its historical skills gap. The Kingdom can substantially increase the number of young people and women participating in the digital economy through a transition from a time-based education model to a competency-based modular model. Connecting these two forms of education with Jordan's Economic Modernization Vision 2033 is not only an important academic step; it is also necessary for economic stability and growth. The success of implementing micro-learning and micro-credential strategies will require ongoing collaboration among the TVSDC, higher education institutions, and the private sector to establish a credible, stackable, and respected lifelong learning system.

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