

MICRO-CREDENTIALS – IMPROVEMENT OR FRAGMENTATION IN HIGHER EDUCATION?

Siniša Kušić¹, Sofija Vrčelj², & Anita Zovko³

Faculty of Humanities and Social Sciences, Department of Education, University of Rijeka (Croatia)

Abstract

This paper¹ analyses various approaches to micro-credentials, one of the most recent trends in higher education. Micro-credentials represent an “alternative” to traditional study programmes for acquiring independent formal qualification in higher education, whereas higher education institutions use it to achieve their mission of supporting adult education, i.e. lifelong learning in higher education. Even though a consensus regarding the definition of the term micro-credentials does not exist at either EU or national level, it can be stated that they represent small-scale and short learning programmes designed to offer specific knowledge, skills and competencies that satisfy social, personal, cultural as well as labour market needs. Apart from different interpretations of the term, the challenges of micro-credentials in higher education are identified in regard to regulatory frameworks, integration into national qualification frameworks, recognition and accumulating of micro-credentials as well as application of quality assurance mechanisms.

Similar to other programmes, micro-credentials are not equally assessed. They can be understood in regard to their purpose and structure, as a mean of flexibility in higher education through the development of individual learning paths, as a mean of supporting higher education in an attempt to become more accessible to non-traditional students as well as an initiative to strengthen adult education in higher education. On the other hand, as the abovementioned education form is oriented towards specific set of knowledge, which is, despite emphasizing other needs, in neoliberal politics predominately oriented towards labour market needs, fragmentation in higher education can be identified. This state is in contrast with holistic nature of study programmes which have to be designed to enable students to acquire well rounded and complementary, theoretical and practical set of knowledge and skills during their respective studies. Despite numerous challenges of micro-credentials, learning programmes designed for the acquisition of micro-credentials deserve systematic consideration in higher education by respecting not only their specific context and structure and higher education system, but also the characteristics of the complete education system.

Keywords: *Micro-credentials, higher education, lifelong learning, flexibility in education, fragmentation in education.*

1. Introduction

Certain types of micro-credentials have existed for a long period of time in vocational education. However, the same phenomenon has recently become the focal point of higher education policies. Micro-credentials have thus become educational concept that governments are beginning to implement strongly with the aim of transforming higher education into the specialized area of preparation for labour market. After this idea was spread from Australia, New Zealand, the USA and Canada, EU have recognized the “potentials” of the idea in question. Micro-credentials have existed in different forms prior to 2020, but they gained momentum due to the emergence of COVID-19 crisis that sped up its implementation in numerous jurisdictions as a part of the governments’ answer to the increase of unemployment, during which universities recognized new markets and target user groups, partially as an answer to the decrease of number of international students whose mobility was restricted (Wheelahan & Moodie, 2021a).

The key documents, on which the EU bases its approach to micro-credentials are *Council Resolution on a strategic framework for European cooperation in education and training towards the European Education Area and beyond (2021-2030)* (The Council of the European Union, 2021), *European Skills Agenda for sustainable competitiveness, social fairness and resilience* (EC, 2020) and *Digital Education Action Plan 2021-2027* (EC, 2020a). The listed documents are focused on two primary micro-credentials user groups, university students and adult education learners with the aim of ensuring more flexible and modular learning possibilities as well as offering inclusive learning forms.

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Micro-credentials concept is in its core an upgrade of the 21st century skills as well as the concept of employability rather than employment that follows the idea of lifelong learning and individual learning paths chosen by the individual himself along with the consequences their choice brings. Simultaneously, the focus is on individual's needs and interests, whereas universities and regulatory bodies' duty is to make the choice in question easier. In this scenario, higher education institutions are becoming increasingly more focused on their students' employability skills as one of their fundamental goals (Suleman, 2018) in order to improve their chances to enter labour market. This situation raises the question of whether micro-credentials will improve higher education by opening towards non-traditional students by following lifelong learning concept or will it make it more fragmented by being exclusively led by the needs of rapidly changing labour market?

2. Micro-credentials in higher education – state and challenges

Micro-credentials represent one of the conceptual forms of “alternative credentials” in which “alternative credentials” are defined as credentials that are not accredited as independent formal educational qualifications (Kato, Galán-Muros & Weko, 2020). This term, popularized in the USA, which, along with micro-credentials also encompasses other conceptual forms such as certificates and digital badges, was used to emphasize its contrast to the qualifications traditionally awarded by higher education institutions after graduation.

Micro-credentials' main challenge is the lack of universally accepted definition. Additionally, common and transparent definition represents a key for further development and acquisition of micro-credentials as a reliable form of gaining competencies in higher education. Although the term micro-credentials is relatively new in higher education, in the past, higher education institutions have offered various short-term study programmes that have met certain micro-credentials criteria (MicroHe, 2019; OECD, 2021) where the issue of how to integrate micro-credentials concept with the already existing programmes within higher education system appears.

European Commission (2020b) defines micro-credentials as a certified document issued by either institution or organization about learning outcomes achieved during short learning experience in which quality assurance standards were respected and which also contained additional information on the provider, applied assessment methods and, where applicable, qualifications framework level and acquired credits. Moreover, according to Oliver (2019), micro-credential represents a proof, a certificate of assessed learning which represents either additional, substitutional, complementary or formal component of formal qualification. Micro-credential represents credential's subunit or credential that can be accumulated into larger credential or become a part of personal portfolio (MicroHE, 2019). According to MICROBOL report, micro-credentials are defined as small-scale learning programmes that are used to gain specific knowledge, skills or competencies that meet personal, social, cultural or labour market needs, and can be either offered by higher education institutions, recognized in accordance with Lisbon Recognition Convention or in line with Recognition of Prior Learning (RPL). In the same matter, micro-credentials should meet quality assurance mechanisms that are in line with ESGs, possess explicitly stated learning outcomes at the national qualifications framework level, workload expressed in ECTS credits as well as clearly defined assessment methods and criteria (Lantero, Finocchietti & Petrucci, 2021).

Furthermore, what is common to every definition is the fact that not only can micro-credential represent exclusively a part or addition to formal qualifications, but it can also represent a stand-alone qualification. Additionally, micro-credential can be understood as a learning experience and/or qualification award. In comparison to traditional study programmes, micro-credentials are smaller in their scope, last shorter, focus exclusively on the development of particular knowledge and skills, flexible in delivery modes, available in digital format due to easier transfer, accumulating with the aim of recognizing and gaining comprehensive qualifications as well as connected with transparent and validated assessment instruments that have to meet quality assurance criteria (OECD, 2021).

MICROBOL report results (Lantero, Finocchietti & Petrucci, 2021), which show both the state and application of Bologna tools in micro-credentials context in member states of European Higher Education Area (EHEA), draw a conclusion that the understanding of micro-credentials concept differs from country to country, that very different approaches in regulatory aspect in regard to integrating micro-credentials into national legislation exist, that there are no existing credential digitalization policies that would enable easier transfer in the majority of EHEA members as well as the fact that the majority of micro-credentials have their workload stated in ECTS credits. However, a political consensus exists regarding the relationship between micro-credentials and already existing credentials, i.e. their integration into national qualifications frameworks (OECD, 2021a). The position of micro-credentials, in comparison to national qualifications frameworks, restricts their interpretability outside of certain higher education institutions, which is something that will require coordinated efforts of both abovementioned institutions and governments.

In regard to recognition, vast majority of countries recognizes micro-credentials with the aim of increasing learner competitiveness on the labour market, whilst smaller number of countries conducts recognition process for either academic purposes or continuation of studies (in the form of approving credits and prior learning). Apart from that, accumulation as well as “stacking” of micro-credentials in order to acquire full degree is enabled in the majority of EHEA states, although, in some cases neither accumulating of micro-credentials with the aim of entering into higher education nor “stacking” is possible. Instead, in order to gain the abovementioned entrance, a formal qualification is required. Individual states do not recognize other provider’s micro-credentials, excluding higher education institutions, due to the lack of quality assurance mechanisms. Furthermore, incorporating micro-credentials into national quality assurance systems represents another enormous challenge because external quality procedures are deemed too administratively overloading to be applied on micro-credentials (Lantero, Finocchietti & Petrucci, 2021).

The abovementioned facts indicate that micro-credentials can be understood as recognizing as well as recording of the results of short learning situations/learning programmes (often in digital environment) in order to increase the flow between various education levels and forms which enables flexibility during the learning process. Micro-credentials are learner’s property who can transfer, combine and accumulate them into larger units or full degree. Additionally, these are the ways in which learning activities can be adapted better to the needs of the learner. The Rome Ministerial communiqué adopted in November 2020 by the EHEA countries, identified micro-credentials as a conduit for “creating a supportive environment, both in terms of funding and regulation, that enables higher education institutions to tailor education provision to the needs of different types of learners (lifelong learners, part-time learners, learners from under-represented and disadvantaged groups) and to build a culture for equity and inclusion” (EHEA, 2020: 3-4). Implementation and integration of micro-credentials into higher education curricula requires a change in higher education institutions’ paradigm from the transfer of knowledge towards active learning model as well as authentic assessment scenarios (Sokhanvar, Salehi & Sokhanvar, 2021).

Maina, Guàrdia Ortiz, Mancini & Martinez Melo (2022) indicate that micro-credentials present an opportunity to improve certain skills which consequently makes the transition from higher education into the world of work more challenging, something which numerous developing countries have to cope with. In this sense, micro-credentials fill in the gaps between traditional study programmes offered by higher education institutions and skills required by labour market, and they offer aimed training for different target groups of non-traditional students. Additionally, micro-credentials possess different purposes that often intertwine, thus enabling the learner to participate in micro-credentials programme in order to advance academically, develop either professionally and/or individually (OECD, 2021). However, alternative approaches to micro-credentials also exists which consider them the source of higher education fragmentation.

3. Critical approach to micro-credentials

If we turn back the time and try to maintain university defined by Humboldt (free organization that should provide broad theoretical and practical knowledge, including experimental science, and whose comprehensive content should enable quality education of complete personality that will be responsible in both learning and scientific work), there are numerous arguments against implementation of micro-credentials in higher education. University diploma is the “lifeblood” of the things that the majority of modern societies appreciates as the evidence of intellect, advanced knowledge, ability as well as success in the chosen profession (Brown & Nic Giolla Mhichil, 2021). *Ivy League* Universities diploma is the ticket into the world of knowledge and work, enabled by the holistic nature of their study programmes. Additionally, holistic nature implies study programmes designed (or they should be designed) to provide students with an opportunity to gain comprehensive and complementary, theoretical and practical knowledge as well as skills in certain field of study. Thus, study programmes or macro-credentials designed in this way (Brown & Nic Giolla Mhichil, 2021) go in favour of an argument that universities encourage both individual and society’s development.

However, during the last couple of decades, neoliberal politics has shaken the universities foundations as both education (and knowledge) are becoming more and more determined by the market criteria. Universities are burdened by learning outcomes derived from economic sphere because they have to provide students with competencies that will enable them to be competitive on both labour market and economy of knowledge and work. Universities are well-known for their professors’ lack of interaction with the students due to their focus on research, instead of creating situations that will motivate students to learn and cooperate. Certain institutional politics are based on the belief that research encourages learning, an academic myth still dominant among the academic community, despite the findings that show that scientific work does not translate into automatic strong incentive for teaching. Žunec (2010) claims that university transformed into pedagogical department that does not nurture the relationship between teaching and scientific work, instead it insists on subordination to market as the only measure of

both institution and individual's value. As a result, the author highlights that neither the development of critical thinking nor habit building is being encouraged among students, but only the development of market-competitive competencies.

By respecting universities' educational policies, it can be stated that micro-credentials do not represent the newest trend of fragmentation in science and higher education, but rather even stronger market orientation (Marginson, 2006; Walsh, 2021; McGreal & Olcott, 2022). Micro-credentials are based on attributes of graduated students, employability and 21st century skills which leads to a logical conclusion; the purpose of learning is to prepare individuals for labour market, something which can be done in small pieces (Wheelahan & Moodie, 2021). Micro-credentials represent new educational concept that contributes to the "genericism" discourse in which individuals have to be ready for "permanent competence" in which, this kind of education, or even more precisely, training, is separated from fundamental scientific disciplines and fields as well as related professional identity (Bernstein, 2000).

Denying this discourse requires the denial of public pedagogy, the type of pedagogy on which university teaching is based on. Furthermore, as stated by Biesta (2005), it is important to differentiate learning and education because education represents contingent process integrated into social relationships and constituted by teachers and students during research and interaction. Neoliberal economy has transformed the meaning of education by imposing certain different pedagogies according to which education became prescriptive ideology of instrumental calculation. On the one hand, learning was reduced to economic exchange between service providers (universities and teachers) and users (families and students), while on the other hand, into currency that serves to achieve economic goals. Thus, the open question of where higher education is heading to and how to conceptualize it remains. However, it seems that we are collectively subscribed to neoliberal economy because it is easier to imagine the end of the world than the end of capitalism (Means, 2018).

4. Conclusion

Micro-credentials enable more flexible and modular learning opportunities by offering inclusive forms of learning. From this perspective, micro-credentials can contribute to the improvement of higher education by implementing fundamental principles of lifelong learning into higher education as well as opening towards non-traditional group of students. Therefore, supporting the improved approach to higher education and the element of inclusivity, especially for those that do not possess formal university entrance qualifications as well as those that wish to develop continuously at the higher levels of education, should not be neglected in future implementation.

On the other hand, under the influence of neoliberal politics on higher education, implementation of micro-credentials empowers the concept of employability, rather than employment, ultimately leading to a change in how both knowledge and competencies are understood, a process in which knowledge at higher education level is being granulated, which leads to the fragmentation in education and the loss of universities' purpose to provide broad (holistic) education. Despite the micro-credentials' critics, it seems that they are the future of higher education as more and more digital natives, who are able to acquire knowledge in small fragments, enter higher education systems.

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