The European Common Micro-credentials Framework for MOOCs and Short Learning Programmes

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Abstract

In today's society, both employees and job seekers have to keep their knowledge and skills up to date, without investing too much time in doing so. The traditional offer of European higher education institutions does not meet this need, as continuing education programs are not flexibly organised, and most people cannot invest years in a bachelor's or master's degree. As a consequence, to meet these learners' needs, universities are required to provide more compact qualifications. Online micro-credentials and short learning programmes are formats that respond to this need.

After defining both the terms microcredentials and short learning programmes, this paper introduces a framework developed within the European MOOCs Consortium: the Common Microcredentials Framework- CMF, whose final aim is, from one side of facilitating the development of these types of programmes among traditional institutions and MOOC providers, and, from the other side, their recognition among European higher education institutions.

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INTRODUCTION AND BACKGROUND

Microcredentials[1] and short learning programmes (SLPs) represent a new format for the delivery of education. They provide an answer to the needs of learners in continuous education (CE) and continuous professional development (CPD). In order to remain competitive and updated in a constantly changing market, learners need to up-skill and re-skill their competencies, yet the majority of higher educational institutions (HEIs) usually only organize face-to-face continuing education and professional development in addition to regular degree programmes. Like never before, higher education institutions are being challenged to make education flexible and scalable by offering more compact, shorter, online programmes without, however, compromising on the quality provided.

The term "microcredentials" has been described by several authors (Kazin & Clerkin, 2018; Chakroun & Keevy, 2018; Oliver, 2019; ICDE, 2019; etc.) and European projects (MicroHE; ECIU; Microbol; etc.) adopting various names (nano degrees[2], MicroMasters[3], undergraduate or post-graduate certificates, expert or specialization certificate, focus diploma, etc.) and definitions (e.g., academic certificate, digital badges, open badges). In this paper we report the definition developed by the Microcredentials Higher Education Consultation group, in December 2020, and one elaborated within the project Microbol.

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1   In this article the terms microcredentials and micro-credentials are used interchangeably.

2   Nanodegree is the term used by Udacity to indicate an online project and skills-based educational credential program.

3   As seen in the MicroMasters program

***Innovation Spotlights** are extremely brief contributions that highlight an innovative teaching practice, approach, or tool, and provide accompanying evidence that speaks to the effectiveness of the innovation.

EU Development

According to the Microcredentials Higher Education Consultation Group,[4] "a micro-credential is a proof of the learning outcomes that a learner has acquired following a short learning experience. These learning outcomes have been assessed against transparent standards. The proof is contained in a certified document that lists the name of the holder, the achieved learning outcomes, the assessment method, the awarding body and, where applicable, the qualifications framework level and the credits gained. Microcredentials are owned by the learner, can be shared, are portable and may be combined into larger credentials or qualifications. They are underpinned by quality assurance following agreed standards" (Shapiro Futures et al., 2020).

More focusing on the content and format of the microcredential program is the definition elaborated within the Microbol project: a micro-credential is a certified short learning experience, offered by a Higher Education Institution (HEI) or other providers (i.e. MOOCs- Massive Online Open Courses- platforms), designed to provide the learner with specific knowledge/ skills/competences that respond to societal, personal, cultural or employability needs. Micro-credentials are subjected to a quality assurance assessment in line with the Standards and Guidelines for Quality Assurance in the European Higher Education Area. As a consequence, they have an explicit reference to (1) EQF-EHEA/NQF (European or National Quality framework) levels; (2) the learning outcomes, that will be achieved; (3) a workload expressed in ECTS (European Credit Transfer and Accumulation System); and (4) the assessment methods and criteria adopted. Finally, each microcredential can be acknowledged by HEI as, and via, recognition of prior learning (RPL) (Cirlan & Loukkola, 2020).

Micro-credentials are high on the digitalization of the European agenda, already in 2018, the EU commission, with the Digital Education Action Plan,[5] "sets out how education and training systems can make better use of innovation and digital technology and support the development of relevant digital competences needed for life and work in an age of rapid digital change" (European Commission, 2018, p.1), also pointing out the importance of digitalized credentials. According to the European Commission (2018), digital technology should "facilitate the

provision of flexible, accessible learning opportunities, including for adult learners and professionals, helping them to re-skill, upskill or change careers," which can be supported "through micro-credentials which capture the learning outcomes of short-term learning." The action plan announced that the Commission would "develop a European approach for micro-credentials." In 2020, with the new "Europass" platform, learners are enabled to create their own profile, register and display their digital credentials to be more attractive in the market. In the same year, 2020, the EU Commission launched its communication, Towards the European Education Area by 2025,[6] in which the development of a European approach to microcredentials in higher education is a key priority. It announced a proposal to the Ministers of Education Recommendation by 2021 and a plan at having all the necessary steps in place by 2025 for the wider use, portability and recognition of microcredentials. In 2021-2025, online micro-credentials are a top priority in the higher education policy of the European Union with the ambition to recognize microcredentials for lifelong learning in the qualifications framework of the European Higher Education Area.

The work done before and along recent EU policies by the European Association of Digital Teaching Universities (EADTU) and its members points in the same direction. EADTU and the European MOOC Consortium (EMC) have developed the Common Microcredentials Framework (CMF), a tool to describe, design and facilitate the recognition of microcredentials offered by European MOOCs providers as well as by HEIs that offer short learning programmes (SLPs). This framework allows higher education institutions to deliver a recognized formal qualification for micro-credentials as a specific award for continuing education.

Indeed, even if microcredentials can be awarded after formal, non-formal and informal learning, this paper deals with the formal recognition of a microcredential qualification within the European Higher Education Area. The next paragraphs present features of the Common Microcredentials Framework CMF and of SLPs. It ends with a short conclusion on the benefits of adopting the CMF and SLPs for both HEIs and students within the European context.
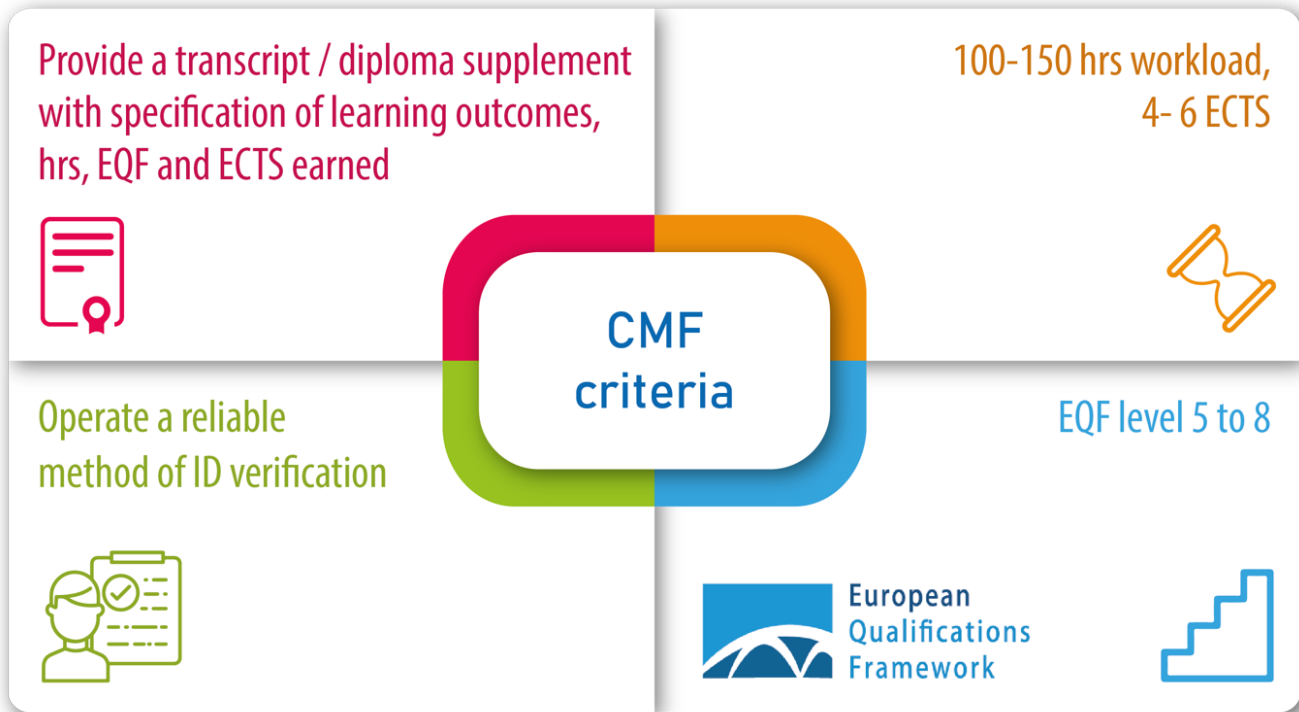
The Common Microcredentials Framework — CMF

The CMF has been developed within the European MOOC Consortium,[7] coordinated by the European Association of Distance Teaching Universities (EADTU), and involving the main European MOOC platforms: FutureLearn, FUN (France Université Numérique), Miríadax, EduOpen and the MOOC portal

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4   The European Commission has recently launched the 'Micro-credentials Higher Education Consultation Group' with two main purposes: (1) develop a common definition for microcredentials and its specifications (such as workload, learning outcomes and the ECTS range), and (2) explore how these credentials can be employed and recognized.

5   For more information, see the Digital Education Action Plan.

6   See the European Higher Education Area.

7   For more information, see the European MOOC Consortium.

Figure 1
THE CMF Criteria.

Provide a transcript / diploma supplement with specification of learning outcomes, hrs, EQF and ECTS earned

100-150 hrs workload, 4- 6 ECTS

CMF criteria

Operate a reliable method of ID verification

EQF level 5 to 8

European Qualifications Framework

OpenupEd. It has been the result of bilateral consultation and cyclic stakeholders' needs for analysis and evaluation. The CMF responds to the question: how to harmonize the current wide variation of qualifications offered in high education, which lead to confusion on matters related to recognition of these credentials not only within institutions but also outside academia?

CMF uses the 'Bologna tools' such as the European Qualifications Framework (EQF), the European Credit Transfer and Accumulation System (ECTS) and the Diploma Supplement (DS) to provide a foundation for mutual trust and recognition through transparency. It promotes a common language between institutions and beyond.

Courses/MOOCs/short programmes described and designed in accordance with CMF meet the following criteria (see Figure 1):
- have a total workload of 100 - 150 hours (4-6 ECTS);
- are levelled at Level 6 (bachelor) to 7 (Master) of the EQF/NQF (European/National Qualification Framework), with options for level 5 (in combination with ECTS);
- provide assessment enabling the award of academic credit, either following successful completion of the course or recognition of prior learning (RPL);
- operate a reliable method of ID verification at the point of assessment; and
- provide a transcript (DS) setting out the learning outcomes for a course, hours of study required, EQF level, and number of credit points earned.

Within the EMC- LM (European MOOC consortium for the Labour Market)[8] project, the CMF has been validated by a consortium of MOOC platforms, universities, public employment services, sectoral organisations and companies. This validation included a conceptual analysis on recognition via involving experts. The CMF has to be seen as a new kind of international and portable credential for lifelong learning, which can be used to design a course or a programme that delivers a credential for each 4-6 ECTS, stackable as part of a bigger degree programme (e.g., Short Learning Programme- SLP or a degree programme).
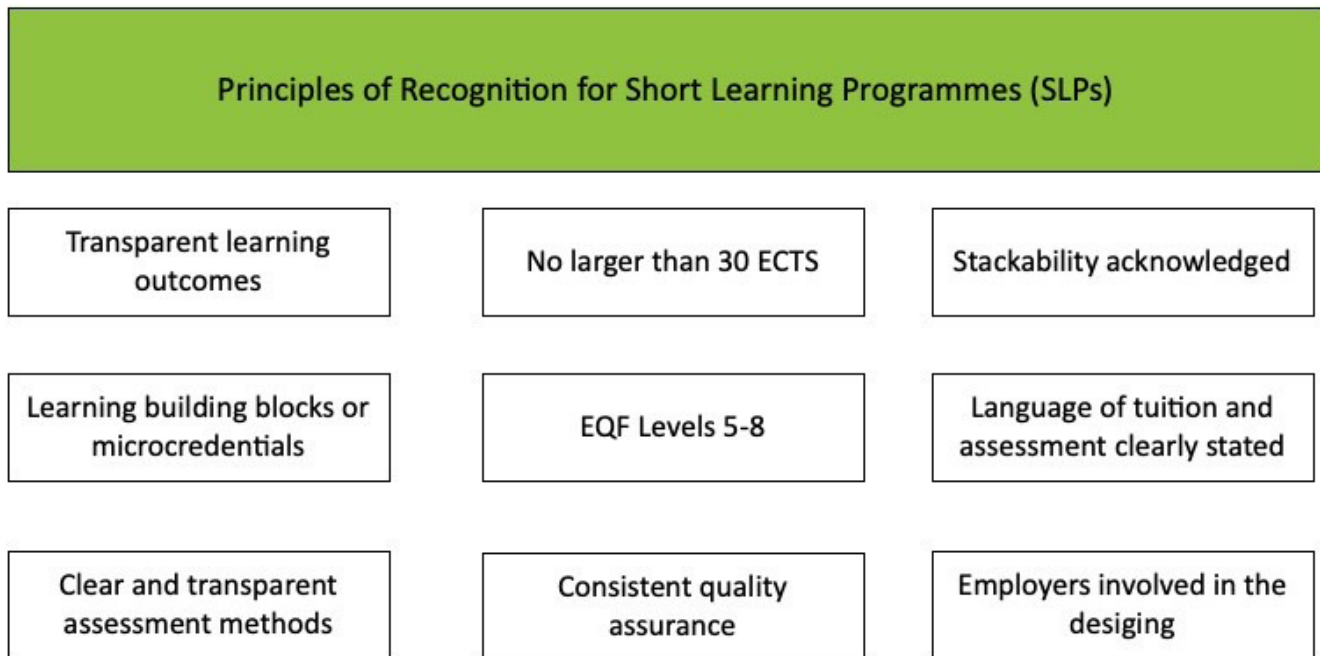
SLPs: definition and characteristics

The European Short Learning Programmes project (E-SLP)[9], with a consortium consisting of 15 High Education Institutions (HEIs), belonging to 13 European countries (Belgium, Cyprus, Finland, Germany, Greece, Italy, Lithuania, Poland, Portugal, Spain, The Netherlands, Turkey and United Kingdom), represents one of the first European initiatives aimed at (1) defining the SLP concept;

8   For more information, see the European MOOC consortium for the Labour Market.
9   For more information, see the Short Learning Programmes project.

Figure 2
The criteria for the recognition of a SLP.

Principles of Recognition for Short Learning Programmes (SLPs)

Transparent learning outcomes	No larger than 30 ECTS	Stackability acknowledged
Learning building blocks or microcredentials	EQF Levels 5-8	Language of tuition and assessment clearly stated
Clear and transparent assessment methods	Consistent quality assurance	Employers involved in the desiging

and (2) generating institutional strategies and guidelines for the design, development, delivery and recognition of SLPs.

According to the E-SLP consortium, a short learning programme can be described as a group of courses (units, modules or other learning building blocks) with a common subject, designed in response to a specific need, that targets higher education lifelong learners and delivers credit-based (ECTS) certification/credentials (Melai et al., 2020).

The main features of SLPs are:
· a coherent set of learning building blocks (or microcredentials) organised around steady learning outcomes, leading to an exam and ultimately to a credential/qualification;
· size variation, from 5 to 30 ECTS, and can reach 5 (foundation degree or diploma of higher education) to 8 (doctorate, PhD) EQF[10] level;
· only provided by a higher educational institution;
· delivered in online or in a blended mode;
· stackable to a larger programme, such as an academic degree (bachelor or master);

· accompanied by a document that details the main characteristics of the programme and the achievements of the student (such as the diploma supplement); and
· assessed by internal (institutional) quality assurance, and in some cases also by an external body (Melai et al., 2020).

These SLPs features are coherent with the CMF, with the reference to ECTS, DS, learning outcomes, EQF and a "system of quality assurance in line with the Standards and Guidelines for Quality Assurance in the European Higher Education Area," which has been made to foster a larger recognition[11] of SLPs adopting a common ground and language (European-Commission/EACEA/Eurydice, 2018).

DISCUSSION AND CONCLUSIONS

The development of micro-credentials has become a key priority of the European Commission's higher education policy. Between 2021 and 2025, Member States will take steps to adopt and recognize microcredentials in the European Higher Education Area to provide flexible and accessible learning opportunities for lifelong learning and professional development.

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10   For more information, see the European Qualifications Frame-work.

11   Issues in relation to the accreditation and recognition of SLPs have been further examined by Dunn et al. (2020).

In this respect, two concepts have been developed within EADTU and the European MOOC Consortium, which are not completely independent of each other: the Common Micro-credential Framework and Short Learning Programs.

All developments fit into a common European approach to microcredentials, using the Bologna instruments related to volume (ECTS), European and national qualification levels (EQF/NQF), European quality guidelines and the description of certificates (Diploma Supplement). This makes CMF easy to be used and recognized for the valorisation of continuing education and professional development programmes within and outside the Bologna countries.

The purpose of this paper was to present the CMF within the European context and show its applicability in both credited MOOCs and SLPs. The simplicity of the framework has enabled its endorsement by the European MOOC Consortium (EMC), and the MOOCs platforms part of it, which link 400 European HEIs.

What's the advantage of referring to the CMF for students? By adopting CMF, students can receive a recognised microcredential after 4-6 ECTS from a university, giving them a sense of progress as they need less time to achieve a milestone, in this case a microcredential. Each microcredential award contains information related to the title of the qualification, the number of ECTS, the learning outcomes/competences, the level of the course achieved, assessment info and the grades earned. If the student wishes to continue learning in the same field in which they obtained the first microcredential, they can choose from related microcredentials, as they are stackable to a larger programme or degree, like in the case of SLPs.

What are the benefits for MOOC providers and higher education institutions? These providers join a movement that is revolutionizing continuing education and continuing professional development. Furthermore, by adopting the Bologna tools, CMF and SLPs enable a faster recognition of these credentials by academia and employers and guarantee their quality.

By the time this paper was written the CMF has been adopted by the following European MOOCs platforms: FutureLearn, Miriadex, FUN and EduOpen and it is going to be registered as a quality standard.

This framework has been developed and tested, keeping the European perspective and practice in mind. Future works may consider examining how other regions are developing and defining microcredentials to see if similar approaches could lead to a broader harmonization of qualifications for continuing education and professional development to the benefit of learners, institutions and employers.

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