Oops a MOOC!

Dealing with eclectic learning in credential evaluation

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Introduction

Over the last few years new forms of online education such as Massive Open Online Courses (MOOCs) have gained momentum and since continue to expand. Moreover, people - and especially youth - switch more jobs during their career than ever before. At each workplace they gain experiences and professional certifications. Although the importance of these 'eclectic' learning experiences will likely increase in the future, they are not captured by the current recognition practice that focuses primarily on evaluating qualifications gained through formal education.

PARADIGMS - Aim and methodology

Considering the above-mentioned developments in education and training, the New Paradigms in Recognition (PARADIGMS) project was designed to formulate recommendations to support ENIC-NARIC centres that want to assess the outcomes of eclectic learning. Although the project was developed by and for the ENIC-NARIC networks, admissions officers at higher education institutions may also benefit from the findings presented in this paper. In addition the project aimed to develop minimum standards that MOOCs and in-company training programmes should meet for the purpose of recognition.

This paper is the result of structured cooperation and exchange of expertise between the consortium partners. As an initial step, MOOC certificates and examples of in-company training programmes have been collected by the project team. Next, these examples have been assessed to identify and analyse the criteria that should be taken into account and to develop frameworks for the evaluation of MOOCs and in-company training programmes. These frameworks are presented and explained in chapter 2 below.

In addition to the development of frameworks for assessment, the project team also explored the possibility to signal individual competencies of applicants. It is largely accepted that competencies or skills are an important indicator of success in specific jobs of study programmes. However, for the purpose of academic recognition, individual competencies are rarely taken into account. Chapter 3 describes what can be done to signal individual competencies and how this could support recognition.

The results of the PARADIGMS project as presented in this paper, intend to give an impetus to the recognition of eclectic learning and the accessibility of higher education in the EHEA. The recommendations in chapter 4 offer general guidance to (further) develop policy and good practice in this specific field. However, as explained above, developments in education and training evolve quickly. In response there will be need for continued reflections and cooperation. One example of new online learning modalities, closely related to MOOCs and currently gaining ground, are the Small Personal Online Courses (SPOC's). Although no SPOC certificates were included in the selected examples, (elements of) the proposed evaluation framework may be of use for the assessment of SPOCs as well.

1. A framework for evaluations

I. Evaluation of MOOCs

Currently, the MOOC market evolves quickly as more and more MOOCs are on offer and technological innovations have an impact – not only on the form and content of the MOOCs, but also on online testing and verification possibilities. At some ENIC-NARIC centres (although not all) this already results in applications including MOOC certificates. Before introducing the criteria that can be used when assessing a MOOC certificate, it is important to provide some background on the different ways MOOCs may be included in an application.

For the purpose of recognition, we can distinguish three different types of applications. In the first option, the MOOC is an integral part of a formal degree programme. In the second option an applicant asks for the assessment of a MOOC certificate in addition to a formal qualification. In the third option there is no formal qualification at all. Instead, the application includes only MOOC certificates. In the table below the three options are further explained and you find guidance on the possible ways to deal with the recognition of these different types of applications.

Figure i: type of application

Type of application	Explanation	Possible recognition
1. MOOCs as part of a degree programme	The MOOC is part of a degree programme that is placed in the national education system. In general, no separate MOOC certificate is included in the application.	*This form of recognition is little problematic and already happens in practice.* For instance when assessing a qualification that is issued by a recognized higher education institution for a study programme including credits obtained through online or blended learning.
2. MOOCs in addition to a traditional qualification	The MOOC cannot be placed in the national education system but is provided in addition to a formal qualification. Often this is done to top-up the formal qualification.	This option is more problematic because, unlike option one, the MOOC is not part of a degree programme. Credential evaluators should weigh the added value of an assessment against the time involved. For instance: if the formal qualification can be recognized for the purpose recognition is sought for, it may not be worthwhile to assess additional MOOC certificates. However, if the assessment of the formal qualification shows there are deficiencies, it may be good to find out if these can be compensated on the basis of the MOOC certificates. *This type of assessment is becoming more common at ENIC-NARIC centres.*
3. (a collection of) MOOCs as separate modules	In this situation the application file only includes a (collection of) MOOC certificate(s). No formal qualification is obtained. Although the file may represent a considerable workload, it is important to note that for the purpose of recognition a collection of credits is not (automatically) a degree (EAR-HEI manual, p57). An interesting initiative in this regard is KIRON – see the case description below. Kiron acts as an intermediary between students and higher education institutions to ensure the recognition of (a collection of) MOOCs.	The third option is most difficult. In order to assess (a collection of) MOOCs and compare it to (part of) a study programme, access to relevant information on credits, learning outcomes, quality of the programme etc., as well as a considerable time investment from the part of the credential evaluator, is required. *At the moment ENIC-NARIC centres generally will not have the capacity to do this type of assessment.*

The case of KIRON

KIRON is a German NGO, helping refugee students to access recognized higher education institutions by providing online education. On the basis of a set of MOOC certificates, refugees get exemptions for a maximum of 60 credits. KIRON selects the MOOCs and ensures that together they lead to the desired learning outcomes. Learning agreements between KIRON and the partnering higher education institutions ensure that the MOOC certificates are recognized.
For more information see: https://kiron.ngo/our-kiron-model/the-academic-model/

How to evaluate MOOCs?

Thus, when receiving an application that includes a MOOC certificate, it is important to establish first whether recognition is desirable/necessary (see *Figure i* above). If this is the case, a more detailed assessment will follow to determine whether the MOOC certificate can be evaluated and what level of recognition can be granted.

In the absence of common practice within the ENIC-NARIC networks on the recognition of MOOC certificates, the PARADIGMS project aimed to develop an assessment framework. For this purpose, the project team first identified the criteria that should be taken into account when assessing a MOOC certificate (***step a***). Next, the traffic light model was selected to determine whether a particular MOOC is more or less suitable for recognition (***step b***). Below, both steps in the assessment procedure are explained.

Step a: criteria for assessment

Starting from the MOOC certificates that were collected by the project team, seven criteria could be identified that should be taken into account when assessing MOOCs. These criteria are:

1. quality of the study programme;
2. verification of the certificate;
3. level of the study programme;
4. learning outcomes;
5. workload;
6. the way study results are tested;
7. identification of the participant.

Figure ii gives a description of each criterion and indicates specific characteristics a credential evaluator could take into consideration.

Figure ii: criteria for assessment

	Summary of what you can expect to come across in practice	As credential evaluator, what should you look at to determine compliance to the element in question?
1. The quality of the study programme	The MOOC market has a wide variety of providers, from renowned universities to governmental organisations and consultancy firms/commercial providers. At the moment there are no generally accepted and independent quality assurance mechanisms for MOOCs. Therefore the legitimacy of the awarding organisation is an important criterion in the assessment of a certificate. However, there may be exceptions to this rule (e.g. a legitimate institution offering a MOOC of poor quality or a non-legitimate institution offering a qualitatively good MOOC).	When assessing the quality of the study programme you can look at: • The status and objective of the course provider • Evidence regarding how the award is treated by third parties (on the labour market or in higher education) • Evidence of internal standards/quality assurance • Evidence of external quality assurance
2. Verification of the certificate	In many cases an online certificate or badge is awarded as proof of learning. Many course providers allow third parties to verify the award online with the help of badges or registration numbers. However, this is not always the case.	When verifying a certificate, you can check: • If the course is indeed offered by the provider • (Online) verification possibilities for third parties offered by the course provider • If the document is registered with the course provider (meaning that the record of the award is kept and the organisation can trace and verify the awarded certificate)? • Presence of signatures, elaborate printing techniques (watermarks, stamps) etc. on the certificate
3. Level of the study programme	Often, the level of the study programme is not mentioned explicitly on the certificate. However, it may be possible to get a good indication of the level through other means (e.g. access requirements, both academic and professional, and the name of the award). Sometimes the level can be identified by a generalist credential evaluator. In other cases subject specific expertise is required.	In order to determine the level you can look at the following: • Access requirements • Name of the award • Target audience • Stated further opportunities • Learning outcomes
4. Learning outcomes	Learning outcomes are an important indicator of the level and purpose of the study programme. However, when assessing MOOC certificates, they should be assessed in combination with other criteria (such as how study results are tested and the identification of the participant).	Learning outcomes are sometimes mentioned in the course description or on the MOOC certificate. • Check if there is an award with comparable learning outcomes offered in your country that you can compare the MOOC certificate to
5. Workload (volume)	the workload of MOOCs varies greatly, from an hour or more to the equivalent of a full semester or more. A certificate obtained after taking a MOOC may also signify a variety of things. It may simply indicate that the person has viewed the course material, but it may also indicate that the person has successfully passed a course with significant workload and (either on or off-campus) final examinations. As a result, some MOOC certificates attest to the acquisition of competencies which can be transferred, whereas others are merely an expression of personal interest.	To assess the workload of the MOOC, it is important to check how the award is presented by the course provider. Specifically: • Check if the workload is mentioned on the certificate and/or in the course description • Check if the workload is reflected in terms of credits • To what extent can it be used as a certification of competences and skills to be presented to third parties? • Does the award provide access to further studies or qualify for exemptions in a regular study program?

	Summary of what you can expect to come across in practice	As credential evaluator, what should you look at to determine compliance to the element in question?
6. The way study results are tested	To ensure the provisioned learning outcomes have actually been achieved, some form of examination should be part of the study program. In practice, testing methodologies differ greatly, from no assessment at all to peer reviews, online proctoring (online testing) and on campus examinations. With the development of new technologies, it is expected that in the future possibilities for (reliable) online examinations will enhance.	When assessing the testing procedure, the following possibilities can be distinguished: • Attendance, viewing, completion (no interaction and no assessment) • Assessment to monitor personal progress (interaction and unsupervised self-assessment and/or peer review) • Assessment to determine whether the learning outcomes have been met (supervised assessment) • Assessment to determine to what extent the learning outcomes have been achieved (graded supervised assessment)
7. Identification of the participant	Identification helps to ensure that the learning outcomes have indeed been achieved by the holder of the certificate or badge. Most MOOC courses ask participants to create an account and to sign up. However, identification with an ID is not always required.	When assessing the identification procedure of the course provider, you can look at: • ID requirements for registration • ID requirements for participation in separate modules/course sessions • ID requirements for examinations (online proctoring)

Step b: Traffic light model

When assessing a particular MOOC certificate the traffic light model as described in the JRC Science for Policy Report[1] proves to be a useful tool. The seven criteria described above can be strongly present (green), present to some extent (orange) or not present at all (red). It is also possible that no information is available on specific criteria (no info). Thus, when using the traffic light model, one can assess whether a particular MOOC is more or less suitable for recognition.

Use of the traffic light model may also lead to the conclusion that some criteria are more important for the purpose of recognition than others. Thus, as an ENIC-NARIC centre you may conclude that, whereas no information is available on the level and learning outcomes of a particular MOOC, the fact that recognized higher education institutions in your country grant access and/or exemptions on the basis of the MOOC certificate is sufficient for recognition.

Please note that information on important aspects of MOOCs is often scarce. Frequently, MOOC certificates do not comply with all seven criteria mentioned in figure ii. Even if verification codes are available and can be checked online, thus guaranteeing the authenticity of the document, additional information on the content and workload of the course may not be provided. Obviously this complicates the work of credential evaluator. However, for ENIC-NARIC centres it is important to accept this reality and develop adequate policies, for instance by prioritizing some of the seven criteria mentioned above, knowing that others are not or only partially met.

Figure iii: Traffic light model

	Quality	Authenticity	Level	Learning outcomes	Workload	Testing	Identification
Name MOOC certificate	○ red ○ orange ○ green ○ no info	○ red ○ orange ○ green ○ no info	○ red ○ orange ○ green ○ no info	○ red ○ orange ○ green ○ no info	○ red ○ orange ○ green ○ no info	○ red ○ orange ○ green ○ no info	○ red ○ orange ○ green ○ no info

[1] JRC Science for Policy Report 'Validation of Non-formal MOOC-based Learning', 2016 (p.6).

II. Evaluation of in-company training programmes

In addition to the MOOC certificates, the PARADIGMS project team also collected and analysed examples of in-company training programmes. This analysis shows that most criteria used for the assessment of MOOCs, can also be applied to in-company training programmes. The quality of the study programme, verification of the certificate, the level of the study programme, the learning outcomes and the workload should all be taken into account when assessing an in-company training programme (see Figure ii, criteria 1 to 5). As most in-company training programmes are offered in-house or in the form of blended learning trajectories (combining online learning with classroom teaching), the MOOC criteria on the way study results are tested and identification of the participant are less relevant (criteria 6 and 7). For in-company training programmes the traffic light model can again serve to structurally assess and where possible prioritize compliance to the criteria for recognition.

As with MOOCs, it can be difficult to find necessary information on quality, learning outcomes, workload etc. about in-company training programmes. A positive trend is that sometimes in-company training programmes are referenced to the National Qualification Framework (NQF). This makes it much easier to determine the level of the programme. However, in-company training programmes are generally related to the business objective of the company that offers the training and may be subject to change. Experience shows that, if the training ceases to exist, information about the curriculum may no longer be accessible and relevant information is lost. This makes it difficult to assess the in-company training certificate and is an obstacle to mobility. To give an example: in The Netherlands the ABN AMRO and NIBE training 'relationship management' was linked to level 6 of the Dutch Qualifications Framework (NLQF) in 2013. In 2017 the training is no longer on offer and no information is available about the workload and the learning outcomes. The testing phase of the PARADIGMS project showed that this lack of information is problematic for the international recognition of the ABN AMRO/NIBE certificate.

2. Signalling competencies

The PARADIGMS project also aimed to explore how we may signal competencies from non-formal qualifications. In addition to the seven assessment criteria mentioned in Figure ii, information about completencies can be helpful to establish if a person is suitable for a specific job or study programme. For instance if a person has proven managerial or social skills, that are not otherwise taken into account in academic recognition. The methodology of the MasterMind Europe[2] project, where the idea of competency based admission has already been explored, was taken as a starting point. The MasterMind project distinguishes between a) general academic competencies b) subject-specific competencies and c) personal competencies. The general academic competencies and the personal competencies are further devided into sub-categories, see Figure iv:

Figure iv: the MasterMind competencies

General academic competencies	Personal competencies
• Create information • Evaluate information • Analyse information • Apply information • Understand information • Remember information	• Leading & deciding • Supporting & cooperating • Interacting & presenting • Analysing & interpreting • Creating & conceptualising • Organising & executing • Adapting & coping • Enterprising & performing

When applying this methodology to MOOCs and in-company training programmes, it becomes apparent that for a credential evaluator it is difficult to obtain this detail of information on the basis of the certificates and the available online information. However, in some instances it may be useful and possible to establish in general terms if an individual has developed academic, subject specific and/or personal competencies. This is possible to the extend that these competencies are mentioned in the learning outcomes of the MOOC/in-company training programme.

[2] Website MasterMind: http://mastermindeurope.eu/

3. Recommendations

The findings of the PARADIGMS project can be of help to further facilitate the recognition of eclectic learning and, consequently, the mobility of students and employees in Europe. For this purpose, separate recommendations have been formulated for credential evaluators, MOOC providers and providers of in-company training programmes.

Recommendations for credential evaluators:

1. It is recommended to use the criteria in Figure ii for the evaluation of MOOC certificates and in company training programmes, as this will help to identify a) whether a certificate can be evaluated and b) what level of recognition can be granted;
2. The traffic light model as described in the JRC Science for Policy Report can be used to systematically assess and where possible prioritize compliance with the above mentioned criteria for recognition;
3. Within the PARADIGMS project an inventory was made of the different ways applicants may ask for an assessment of MOOCs. Based on this inventory, three types of recognition can be distinguished: recognition of MOOCs as part of a degree programme, evaluation of MOOCs in addition to a traditional qualification, evaluation of (a set of) MOOCs as separate modules. The second model (evaluation of MOOCs in addition to a traditional qualification) can be of added value for applicants who's traditional qualification is not recognized because of deficiencies. As the time available for the evaluation of MOOCs, in-company training programmes and other forms of 'eclectic learning' is limited, it is recommended to carefully balance the added value of an assessment against the expected time needed for the investigation;
4. In specific cases it may also be useful and possible to establish in general terms if an applicant has developed academic, subject specific and/or personal competentcies;
5. It is recommended to make an inventory of MOOCs and/or MOOC providers that are generally perceived as trustworthy and of high quality;

Recommendations for MOOC providers:

The outcomes of the PARADIGMS project emphasize the need for quick and reliable information on what sort of MOOCs are worthwhile to consider for evaluation. This information is currently lacking in many cases.

6. It is recommended for MOOC providers to ensure clear and transparent information provision on their course certificates and their course curricula;

Recommendations for providers of in-company training programmes:

The outcomes of the PARADIGMS project show there is room for improvement regarding the information provision on in-company training programmes. Linking in-company training programmes to the NQF is a step in the right direction. Next, it would be useful to explore how additional information on workload and learning outcomes could be made available, also after the lifetime of the training programme.

7. It is recommended that providers of in-company training programmes link their programmes to the NQF in order to allow for transparency on the level of the study programme;
8. It is recommended that providers of in-company training programmes ensure additional information is available on their certificates and on the training curricula, also after the lifetime of the training programme.

4. About the PARADIGMS project

This paper was produced as part of the New Paradigms in Recognition (PARADIGMS) project, which aims to contribute to more effective policies for the recognition of foreign qualifications in the European Higher Education Area by exploring two important new developments: a) the implementation of automatic recognition and b) recognition of experiences gained through new forms of learning such as MOOCs and in-company training programmes[3].

Between March 2016 and February 2018 two expert groups have been formed to make an inventory of the latest developments on automatic recognition and on eclectic learning. In addition, guidelines to further implement automatic recognition in the EHEA and to recognize new forms of learning, have been developed and tested.

The PARADIGMS consortium is composed of representatives from the ENIC-NARIC network: NARIC France, NARIC Denmark, NARIC Lithuania, NARIC Norway, NARIC Portugal, NARIC Ireland, NARIC Slovenia, NARIC Flanders and NARIC The Netherlands. Other partners involved are The President of the ENIC Bureau and the Vice-President of the Lisbon Recognition Convention Committee. The project is co-funded by the Erasmus+ Programme of the European Union.

[3] Another paper is available on automatic recognition. See https://www.nuffic.nl/en/diploma-recognition/paradigms

Colofon

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