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## Benchmarks for MOOCs: the OpenupEd quality label

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**ABSTRACT:** In this paper I report on the development of the OpenupEd Quality Label, a self-assessment and review quality assurance process for the European OpenupEd portal ([www.openuped.eu](http://www.openuped.eu)) for MOOCs (massive open online courses). This process is focused on benchmark statements that seek to capture good practice, both at the level of the institution and at the level of individual courses. The benchmark statements for MOOCs are derived from benchmarks produced by the E-xcellence e-learning quality projects ([E-xcellencelabel.eadtu.eu/](http://E-xcellencelabel.eadtu.eu/)). A process of self-assessment and review is intended to encourage quality enhancement, captured in an action plan. I suggest that a quality label for MOOCs will benefit all MOOC stakeholders.

### 1 Introduction

The rise of Massive Open Online Courses (MOOCs) has been recent and rapid (for an overview, see Daniel, 2012; Yuan & Powell, 2013; Haggard, 2013). By 2012, Daniel and others were noting that the earlier courses based on connectivist learning (cMOOCs) were being joined by large numbers of courses based on a transmission or behaviourist model of teaching and learning (xMOOCs), often delivered through a platform such as Coursera, Udacity and edX. These can certainly claim to provide courses on a massive scale: by early 2014, Coursera had 22 million enrolments on 571 courses, with 240,000 enrolments on the most popular course (Coursera, 2014).

However, questions about the quality of the MOOC experience began to be widely asked in 2013, for example in reports by Yuan and Powell (2013) and Haggard (2013). Margaryan et al (2015) found that the majority of the MOOCs they surveyed scored poorly against instructional design principles. The concern over quality in MOOCs was coupled with a concern over high drop-out rates. Jordan (2014) found that the majority of 279 MOOCs analysed had completion rates of less than 10%; the median completion rate was only 6.5%.

#### 1.1 Does quality in MOOCs matter?

Teachers in higher education (HE) should be concerned to give students a good quality learning experience, whether students are enrolled on a fee-paying credit-bearing course or a MOOC. The UK Quality Assurance Agency's statement on MOOCs reflects this position (QAA, 2014). This is particularly the case if we agree that one aim of MOOCs is to open up access to higher education. Yet it is hard to claim that MOOCs are delivering in this respect when completion rates are so low.

However, Ehlers, Ossiannilsson and Creelman (2013) posed a question at the start of the EFQUEL MOOC project ([mooc.efquel.org](http://mooc.efquel.org)): 'Can the quality of MOOCs be assessed in the same way as any defined university course with traditional degree awarding processes?'

Weller (2013a) is one of those who argue that, since the aims and intentions of both student and institution differ in the context of MOOCs compared to formal education, conventional quality measures are inappropriate; for example, if many students don't have course completion as a major goal, it should not be used as a quality measure.

Against this I would argue that a MOOC, by definition, is a 'course'. While there are many different flavours of MOOC (and a number of attempts to categorise them – see Siemens 2012; Clark 2013; Conole 2014), the claim to be a course is what distinguishes a MOOC from the more general category of open educational resources (OER). MOOCs use the affordances associated with a course to engage students in learning. These features include the structure and pacing, the cohort of students who can form a community and encourage collaborative learning, the feedback provided by assessment, and often the presence of a 'star' professor to lead the course. It therefore doesn't seem an unreasonable starting position to use the same quality measures for MOOCs as for other HE courses. Further, current higher education MOOCs are usually closely aligned to more conventional university courses. MOOCs are authored and taught by HE staff. Material is often derived from existing credit-bearing courses, or is positioned as providing an access route to credit-bearing curriculum. MOOCs are usually branded by an HE institution, and so the institution takes on a reputational risk unless quality is maintained. In practice, therefore, it is often the case that MOOCs do stand in some relation to existing institutional QA processes. For example, there is usually a course approval process, although this may be 'light-touch', given that MOOCs typically do not bear credit and are not part of a designed curriculum.

From this perspective, I argue that conventional HE quality assurance and enhancement measures are not an inappropriate fit to MOOCs. Furthermore, the MOOC community should engage seriously with quality assurance and quality enhancement. For many staff in conventional campus universities used to teaching relatively small classes in a largely face-to-face setting, creating e-learning courses for very large numbers of students is a radical departure and deserves close attention. This attention moreover should focus specifically on e-learning quality and its enhancement. Kear, Williams and Rosewell (2014) suggest that quality assurance procedures established for campus based universities do not necessarily fit well with e-learning, and that specific resources and processes for quality assurance of e-learning are needed.

So on balance, while there may be reasons for thinking that MOOCs and their students are different from traditional university courses, I believe that there are also good reasons for suggesting that the answer to the question posed by Ehlers, Ossiannilsson and Creelman should be 'yes, we should assess quality in the same way'. Yes, because MOOCs are produced by the same staff in the same institutions as conventional courses and are often extracts from or reversioning of existing course material. Yes, because MOOCs should have perceived value and increasingly can be recognised for credit. Yes, because students deserve a good quality experience if the intention of MOOCs is to open up higher education, either for an initial experience of higher education or for lifelong learning. Yes, because MOOCs are a form of e-learning and the HE sector's understanding of e-learning quality is still developing and cannot be taken for granted; a culture of quality enhancement is needed.

If MOOCs require a quality assurance process, that process should be one that is tailored to e-learning. There are existing e-learning quality approaches intended for use in formal, credit-bearing education that could be pressed into service; Butcher and Wilson-Strydom (2013) provide a useful overview and guide to the issues. The OpenupEd Quality Label described below is derived from the E-xcellence label ([E-xcellencelabel.eadtu.eu/](http://E-xcellencelabel.eadtu.eu/)), an established approach to quality assurance of e-learning and blended learning that has roots in the experience of open and distance learning institutions.

## 2 The OpenupEd initiative

The OpenupEd initiative was launched in April 2013 by the European Association of Distance Teaching Universities (EADTU) with support from the European Commission. OpenupEd ([www.openuped.eu](http://www.openuped.eu)) is an open, non-profit partnership for MOOCs.

OpenupEd promises to bring some distinctive features to the MOOC landscape. The launch partners (see [openuped.eu/partners/current-partners](http://openuped.eu/partners/current-partners)) will apply their extensive experience of open and distance learning to MOOCs. In addition, OpenupEd partners have a commitment to opening up education to the benefit both of learners and of wider society, while reflecting “European values such as equity, quality and diversity” (Commissioner Vassiliou in European Commission, 2013). The vision is to reach out to all those learners who wish to take part in online higher education in a way that meets their needs and accommodates their situation.

OpenupEd positions MOOCs as part of open education. The MOOCs offered by OpenupEd partners are intended to remove all unnecessary barriers to learning and provide students with a reasonable chance of success in education. This implies ‘openness’ in the sense not only of no financial cost, but also open accessibility, open licensing policy, freedom of place, pace and time of study, open entry, and open pedagogy (Weller, 2013b).

To ensure that OpenupEd courses meet this vision, partners are asked to endorse the eight distinctive features described below.

**Openness to learners:** This captures aspects such as: open entry (no formal admission requirements), freedom to study at time, place and pace of choice, and flexible pathways. In a broader perspective this feature stresses the importance of being open to learners’ needs and providing for a wide variety of lifelong learners.

**Digital openness:** Courses should be freely available online but in addition apply open licensing so that material and data can be reused, remixed, reworked and redistributed (e.g. using CC-BY-SA or similar).

**Learner-centred approach:** Courses should aid students to construct their own learning from a rich environment, and to share and communicate it with others; they should not simply focus on the transmission of content knowledge to the student.

**Independent learning:** Courses should provide high quality materials to enable an independent learner to progress through self-study.

**Media-supported interaction:** Course materials should make best use of online affordances (interactivity, communication, collaboration) as well as rich media (video and audio) to engage students with their learning.

**Recognition options:** Successful course completion should be recognised as indicating worthwhile educational achievement.

**Quality focus:** There should be a consistent focus on quality in the production and presentation of a course.

**Spectrum of diversity:** Courses should be inclusive and accessible to the wide diversity of citizens; they should allow a spectrum of approaches and contexts, accounting for a variety of language, culture, setting, pedagogics and technologies.

A distinctive aspect of OpenupEd is the promise of a quality educational experience that can bridge between informal and formal learning and provide recognition for the student's achievement. This promise is to be encapsulated in a 'quality label'.

### 3 The OpenupEd Quality Label

The OpenupEd Quality Label is intended to encourage quality enhancement for MOOCs and their providers. It was derived from the E-xcellence label ([E-xcellencelabel.eadtu.eu/](http://E-xcellencelabel.eadtu.eu/)) which provides a methodology for assessing the quality of e-learning in higher education (HE). E-xcellence has evolved over a series of projects commencing in 2005 (Williams, Kear, Rosewell and Ferreira, 2011). E-xcellence now provides a series of tools, including a manual (Williams, Kear and Rosewell, 2012) and interactive 'quick scan' self-assessment, that support a review process based around a number of benchmark statements. These are grouped into six areas: Strategic Management, Curriculum Design, Course Design, Course Delivery, Staff Support and Student Support. The manual provides supporting text and more detailed indicators of good practice.

For the OpenupEd Quality Label, we drafted a revised set of benchmarks and a self-assessment and review process better suited to MOOCs. These were first presented at a master class at the 2013 EADTU conference ([conference.eadtu.eu/](http://conference.eadtu.eu/)). This draft was updated using feedback gathered at this event, and then made available for further review, with comment invited from OpenupEd partners and E-xcellence assessors. The final version was published in January 2014 ([openuped.eu/mooc-features/openuped-label](http://openuped.eu/mooc-features/openuped-label)).

The resulting benchmarks are listed in Appendix 1 below. The benchmarks are divided into two major groups, one that applies at the institutional level and another that applies to individual courses. As described below, each MOOC should be considered against the course-level benchmarks, but the institutional-level benchmarks are intended only for periodic review. The institutional-level benchmarks are grouped into the same six areas as the E-xcellence benchmarks.

An outline of the OpenupEd Quality Label process is as follows. OpenupEd partners are expected to be higher education institutions (HEI) that meet national requirements for quality assurance and accreditation. The HEI should have an internal procedure to approve a MOOC; this is expected to be a 'light-touch' version of the institutional quality assurance systems that apply to their formal courses. New partners will obtain the OpenupEd Quality Label by a self-assessment and review process that will consider benchmarks both at institutional and course level (for two courses initially). The HEI should endorse the eight distinctive OpenupEd features listed above; in particular, every MOOC must demonstrate the features 'openness to learners' and 'digital openness'. The OpenupEd Quality Label must be renewed periodically. Between institutional reviews, additional MOOCs will be reviewed at course level only. The institution is expected to evaluate and monitor each MOOC in presentation, providing quantitative data including participation, completion and student satisfaction, and a qualitative assessment of equity, quality, and diversity. The OpenupEd partnership will collaborate to share standardised evaluation data.

The self-assessment and review are focussed around the benchmarks given in Appendix 1. A 'quick scan' checklist is provided (Figure 1) which lists the benchmarks with an accompanying grid to record two aspects. First, an overall judgement can be made on the extent to which the benchmark is achieved (on a four-point scale: not achieved, partially achieved, largely achieved, or fully achieved). Secondly, a mapping can be made between each benchmark and the eight OpenupEd distinctive features; an initial mapping is provided but this can be adapted where necessary. For example, in Figure 1 benchmark #22 'A clear



statement of learning outcomes for both knowledge and skills is provided' is mapped to the distinctive feature 'IL – Independent learning' to suggest that evidence gathered in relation to the benchmark is also likely to provide evidence of a course suited to independent learning.

A		B		C		D					E					
Benchmark/indicator				OL	DO	LC	IL	MI	RO	QF	SD		NA	PA	LA	FA
<b>Course level</b>																
22	A clear statement of learning outcomes for both knowledge and skills is provided.	10					x									
23	There is reasoned coherence between learning outcomes, course content, teaching and learning strategy (including use of media), and assessment methods.	11				x	x	x		x						
24	Course activities aid students to construct their own learning and to communicate it to others.					x										

**Figure 1** Part of the quick scan checklist. Key: A – benchmark number; B – Benchmark statement; C – cross-reference to E-xcellence manual; D – mapping to OpenupEd features; E – grid for recording benchmark achievement

The quick scan can be used to give an initial picture of areas of strength and weakness. It can also highlight: where benchmarks may not be fully appropriate; where they may fail to capture good practice in a particular HEI or MOOC; and where additional detailed indicators might be helpful. The quick scan should then be fleshed out by a more detailed self-assessment process, ideally including different stakeholders such as academics, managers, course designers and students. This should gather evidence for each benchmark, including the extent to which it supports the distinctive OpenupEd features. A plan detailing improvement actions is then prepared. The documented self-assessment and the improvement plan form the basis of a final review and discussion with external assessors, who then prepare a final report including their recommendation for the award of the OpenupEd Quality Label.

**31 Assessment is explicit, fair, valid and reliable. Measures appropriate to the level of certification are in place to counter impersonation and plagiarism.**

See comments to Benchmark 29 above.

The advent of digital badges (for example Mozilla open badges) provides a method of rewarding achievement that may be appropriate for MOOCs. The award of digital badges can be linked to automated or peer assessment. Digital badges have an infrastructure that verifies the identity of the holder and provides a link back to the issuer and the criteria and evidence for which it was awarded. Badges thus may provide a validated award that can be kept distinct from the HEIs normal qualifications.

*See also:*

- E-xcellence benchmark #17
- Chapter 3 *Course design*
- § 2.4 Assessment procedures
- § 3.4 Assessment
- § 4.2.5 Online assessment

**Figure 2** Example assessor's note, with references to the E-xcellence manual.

A number of documents support this process, including templates for the quick scan checklist, evidence gathering and action plan. Assessor's notes are provided that cross-reference the OpenupEd benchmarks to additional indicators and background material in the

E-xcellence manual (Williams, Kear and Rosewell, 2012), with supplementary material provided for MOOC-specific aspects where necessary (Figure 2). It is anticipated that this documentation will be extended in the light of experience.

There is considerable diversity in institutional approaches to opening up education by the use of MOOCs, and the OpenupEd label should embrace this. It is not therefore expected that every benchmark will be achieved by every institution. In our approach, benchmarking is intended as an improvement tool; a process of comparing the institutional performance with best practices as currently understood in the field of MOOCs and open education. This process guides institutions to look critically at their own position and practices, and leads to identification of weaknesses and strengths in comparison to other universities. Institutions that use the OpenupEd Quality Label should be guided towards improving their performance in e-learning and in opening up education by the use of MOOCs.

The initial MOOCs offered through the OpenupEd portal have been courses from EADTU members that had undergone institutional quality procedures that were judged sufficient by the EADTU board to meet the OpenupEd label without following the process outlined above. Evaluation of the quality label process will follow as MOOCs are subject to the full process.

## **4 Conclusion**

The OpenupEd Quality Label is offered as a way of ensuring that MOOCs offer a good quality educational experience. It does this by adopting a quality enhancement approach, based on initial self-assessment against benchmark indicators, followed by external review leading to an improvement action plan. This process is designed to complement both an institutional course approval process, and ongoing evaluation and monitoring of courses in presentation. The overall approach and the benchmarks are derived from the E-xcellence e-learning quality projects, emphasising the importance of e-learning features. The OpenupEd Quality Label process is a lighter-touch version of E-xcellence since it separates institutional level benchmarks which need be checked only periodically from course level benchmarks that can be applied to each course. The benchmarks have also been adapted to be more appropriate to the MOOC context.

The OpenupEd label should benefit all stakeholders in MOOCs. Students can be reassured about the experience they are committing to. Employers can recognise the content and skills demonstrated by a MOOC certificate. MOOC authors can achieve recognition for their input. Institutions can protect their brand reputation. Funders can be reassured that products are worthwhile. Quality agencies, who work on behalf of all the above parties, may find their task eased.

## **5 Acknowledgements**

An earlier version of this paper was presented at *Changing the Trajectory - Quality for Opening up Education*, EFQUEL Innovation Forum 2014 and International LINQ Conference 2014, Crete, May 2014 and subsequently published as Rosewell and Jansen (2014).

# Appendix 1: OpenupEd quality benchmarks

## Institutional level

### Strategic management

- 1 The institution has a MOOC strategy that relates to its overarching strategies for e-learning, open education and open licensing.
- 2 Research and monitoring of developments in education and technology inform the design of MOOCs. There is an organisational framework to foster this.
- 3 The institution has a strategy for the appropriate resourcing of MOOC development. It has a business model, appropriate to the institutional mission, that addresses the sustainability of MOOCs.
- 4 The institution has a service relationship to MOOC participants that addresses ethical and legal dimensions including accessibility and data protection.
- 5 Collaborative and partnership activities have clearly defined roles and responsibilities and operational agreements exist where appropriate. Policies exist to cover issues such as intellectual property rights and open licensing.
- 6 The institution has a quality policy that relates to national frameworks, and the MOOC offering is related to that policy.

### Curriculum design

- 7 The institution makes explicit the relationship between its MOOC portfolio and its mainstream curriculum.
- 8 The MOOC portfolio provides for the development of students' cognitive skills, key/transferrable skills, and professional/practical skills in addition to knowledge and understanding.

### Course design

- 9 The institution provides templates or guidelines for layout and presentation of MOOCs to support consistency across the portfolio. These templates have the flexibility to accommodate a range of teaching and learning methods.
- 10 Course materials, including the intended learning outcomes, are regularly reviewed, up-dated and improved using feedback from stakeholders.
- 11 The institution specifies an open licence for MOOC components, and has a mechanism to track intellectual property rights.

### Course delivery

- 12 The MOOC platform is reliable, secure and assures appropriate levels of privacy. Provision is made for system maintenance, monitoring and review of performance.
- 13 The MOOC platform provides a range of online tools which are appropriate for the



educational models adopted.

- 14 Mechanisms exist to monitor and evaluate MOOCs using quantitative and qualitative approaches.

### **Staff support**

- 15 The institution provides appropriate training for academic and support staff to develop the skills required to develop and deliver e-learning.
- 16 Educational research and innovation in e-learning are regarded as high status activities. There are mechanisms for the dissemination of good practice.
- 17 The institution provides adequate support and resources to MOOC staff and manages workloads appropriately.

### **Student support**

- 18 MOOC students are provided with clear and up-to-date information about courses including aims/objectives, learning and assessment methods, workload and prerequisite knowledge. Where possible, courses should be related to national or European academic frameworks or specifications.
- 19 The rights, roles and responsibilities of MOOC students and those of their institution are clearly stated.
- 20 The institution uses social networking to foster academic communities among MOOC students.
- 21 MOOC students have clear routes to academic, technical and administrative support. The level of support provided by the institution is clearly stated.

### **Course level**

- 22 A clear statement of learning outcomes for both knowledge and skills is provided.
- 23 There is reasoned coherence between learning outcomes, course content, teaching and learning strategy (including use of media), and assessment methods.
- 24 Course activities aid students to construct their own learning and to communicate it to others.
- 25 The course content is relevant, accurate, and current.
- 26 Staff who write and deliver the course have the skills and experience to do so successfully.
- 27 Course components have an open licence and are correctly attributed. Reuse of material is supported by the appropriate choice of formats and standards.
- 28 Courses conform to guidelines for layout, presentation and accessibility.
- 29 The course contains sufficient interactivity (student-to-content or student-to-student) to encourage active engagement. The course provides learners with regular feedback through self-assessment activities, tests or peer feedback.

- 30 Learning outcomes are assessed using a balance of formative and summative assessment appropriate to the level of certification.
- 31 Assessment is explicit, fair, valid and reliable. Measures appropriate to the level of certification are in place to counter impersonation and plagiarism.
- 32 Course materials are reviewed, updated and improved using feedback from stakeholders.

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