

Repurposing MOOC learning for academic credit: A survey of practice in University
Work Based Learning departments in England and Wales

Abstract

This small study is an investigation into the potential for converting learning from MOOCs into credit bearing qualifications in universities. The mechanism for achieving such conversion is the use of what is variously known as the Accreditation or Recognition of Prior Learning (A/RPL). The evidence suggests such practices in the UK are heavily concentrated in Work Based Learning (WBL) departments. This study investigated practices in 26 WBL departments in England and Wales. The results indicate there is very little awareness of the potential of MOOC learning as the basis for A/RPL claims among tutors in WBL departments. Moreover there are relatively few departments which have sufficiently flexible procedures to integrate MOOC learning into curricula. At a time when policy makers are seeking the removal of barriers to the recognition of informal and non-formal learning it seems there are few opportunities for those completing MOOC courses in England and Wales to convert them into recognised qualifications. The study provides evidence that in the UK completion of MOOC courses is unlikely to result in accredited qualifications.

Keywords: MOOCs; Re-purposing; Work Based Learning; Recognition of Prior Learning; Non-formal learning; e-learning.

Authors note: A full copy of the questionnaire and survey results are available upon request.

Introduction

In a recent editorial in this journal the question was asked what Massive Open Online Courses, MOOCs had to offer lifelong and adult education? (Holford et. al. 2014, p.570). Their development has aroused hopes that many hitherto excluded groups will be able to access learning at times and in places suited to their needs and enable them to engage in genuine lifelong learning (Barber, Donnelly and Rizvi 2013; Christensen and Eyring 2011). One of the mechanisms for this is the possibility of students' translating learning obtained from a MOOC into academic credit by using the former as the basis for a claim for Prior Learning. This small scale study investigates the potential for so doing in those university departments in the United Kingdom most likely to engage in the practice of what is commonly known as the Accreditation of Prior Learning (APL) or Recognition of Prior Learning (RPL), hereafter referred to as A/RPL¹. There follows below a brief review of practices in this respect.

The practice of recognising the past learning achievements outside of formal educational institutions originates in the writings of Dewey (1910) and Lewin (1951) and their ideas in respect of learning directly from lived experience. American universities from the 1930s began admitting students with practical experience onto formal academic programmes from the 1930s although the practice did not greatly develop until after World War Two. (Travers 2012). The spread of practice in the US

¹ both terms, APL and RPL are used in British universities although more recently the Quality Assurance Agency (2013) has favoured the latter. The same practice goes under a number of other terms around the world such as the Validation of Non-formal and Informal learning (VNIL), Past Learning Assessment (PLA) and Validation de Acquis des Experiences.

has been greatly facilitated since the 1970s by the Council for Adult and Experiential Learning (CAEL). The educationalist Norman Evans spent time with CAEL before returning to Britain to set up the equivalent Learning from Experience Trust (LET) in 1986. It is from this time that A/RPL practices were introduced into the author's own university (Evans 2000). Historically A/RPL has been used by academic tutors motivated by a desire to include under-represented or excluded groups into the formal academic process, such as in South Africa during the Apartheid era (Ballim 2000). In more recent years the use of A/RPL has been widely recognised by policy makers as having strategic significance both in terms of enabling excluded groups greater access to higher education and an enhanced ability to engage in lifelong learning in the context of a dynamic, globalised knowledge based labour market (UNESCO 2012; European Council 2012; OECD 2010). There are regular international surveys of A/RPL which include the UK at level of the European Union (CEDEFOP 2010; 2014) and globally (OECD 2016). These surveys are valuable but they are impressionistic, rather than a systematic survey of practice.

The origins of the study are located in personal experience. The author is a tutor in a Work based learning (WBL) department. Recently for the first time a student presented a MOOC Certificate as the basis for an A/RPL claim. The student, typical of many in WBL, is non-standard who embarked on a degree programme without any of the normal qualifying entry certificates. He is an adult working full time and so required part time study. He has little interest in completing a standard subject based curriculum but wishes to study in ways which enhance his performance at work as WBL is designed to do (Wall 2010). A WBL degree allows the integration of formal theoretical knowledge with practical experience on a programme entirely tailored to individual requirements.

Students on the WBL programme can obtain up to two thirds of a Bachelor degree by means of A/RPL although all learning at level 6 must be new rather than past learning (Talbot 2015). For the purposes of the A/RPL process completion of a MOOC course as evidenced by a certificate following automated assessment is regarded as Non-formal learning- that is structured, planned learning which is not credit bearing (Bjornavold 2000). For the purposes of awarding credit students are required to demonstrate their understanding of the material they have studied non-formally and its application in practice in a formal academic assignment. Butterworth (1982) distinguishes two approaches to the processing of A/RPL claims. In the 'Credit exchange model' credit is awarded in return for the completion of past learning, usually in the form of a portfolio of evidence. In the 'Developmental model' as described here the student is required to formally demonstrate the learning which has resulted from past experience. The focus of assessment is transferred from a portfolio to the analysis of past learning with reference to theoretical and empirical literature. It is use of this approach in A/RPL assessment which enables the 're-purposing' of freely available MOOC learning resources for use in an accredited programme (Billington and Fronmueller 2013).

Using MOOC certificates as the basis for A/RPL claims has many advantages. The student is able to freely access high quality learning materials and gain valuable, formal learning at times and places which are convenient. They can then reflect upon this newly acquired knowledge for the awarding of credit as part of a formal, accredited programme of study. By this means they can deepen knowledge of their professional practice and implement new practices. While the MOOC learning is free, the awarding of academic credit is half the cost of that normally charged by the university, reflecting the time invested in assessment but not the creation and delivering of content.

At the same time as the first student presented a MOOC certificate to the author a number of others had noted the potential for this kind of practice (Moss 2013; Conrad 2013; 2014; Dillenbourg 2015). In addition to academics policy makers and government also identified the same potential. The Institute for Public Policy Research (2013, p. 99) declared:

“..while in the first instance MOOCs will simply be for voluntary leisure learning, there is clearly the potential for these courses to be accredited and count towards degree programmes. A candidate who successfully completes a MOOC could pay a small fee in order to take an assessment and gain credit that counts towards a formal qualification.”

The UK the Department for Business Innovation and Skills (2013, p. 7) also stated:

“The burning issues for MOOCs are the exploration of a viable business model and the accreditation of MOOC learning”;

What was lacking is with very few exceptions such as the case described above, very few examples that this practice was occurring. Attempts to find an organisation willing to fund research in this area proved fruitless so it was decided to conduct a small survey of those parts of the UK higher education system where A/RPL claims based upon MOOC learning were most likely to be made. It was not immediately apparent how to begin such a survey as practices in respect of A/RPL are not formally recorded and there is little published research to draw upon. The last published survey in England is over a decade old so that it cannot be regarded as an authoritative picture of current practice (Merrifield, MacIntyre and Osaigbovo 2000). However some of their findings still appear relevant. It seems almost all English universities have regulations which permit A/RPL but there is very little practice. More recent surveys of Scottish universities (Whittaker et. Al 2011) and Colleges of Further Education (National Institute of Adult Continuing Education 2013) identified a similar pattern- isolated pockets of practice. According to Pokorny (2011) and Singh (2015) practice is most heavily concentrated in university Health and WBL department. As the author is more familiar with the latter, the survey was restricted to WBL departments in England and Wales. This created

another problem since WBL is not regarded as a 'subject' by the UK Higher Education Statistics Authority (HESA) there is no official record of it in UK universities and no independent research has been conducted on the extent of the practice. Before discussing the research methods and results it is necessary at this point for readers unfamiliar with WBL and MOOCs to briefly describe each in turn.

Work Based Learning in British universities

The spread of Work Based Learning (WBL) in universities and associated practices such as Work Applied Learning (Abraham 2012), Work Integrated Learning (Cooper, Orrell and Bowden 2010) and Work Related Learning (Streumer 2006; Jackson 2015) during the past twenty years can be seen as part of a broader, global process of adjustment of the curriculum to modify the traditional emphasis on didactic instruction in a subject discipline and make it more relevant to the requirements of the labour market (Slaughter and Jay 2016). Given the confusion over terminology it is not altogether surprising there is not much agreement about what WBL actually is (CEDEFOP 2015) and for some authors it appears to be something undertaken purely at sub-degree level (Sweet 2013) One approach is to define it in terms of locating learning as occurring in the workplace (Boud and Solomon 2001). Another approach is to define it in terms of its approach to pedagogy (Nottingham 2012). Costley and Dikerdem (2011) identify four features of which one or more are usually present in any work based programme of learning:

- Accreditation of past learning
- Learning agreements (ie learning by contract) between the university and students/ employers

- ‘Work’ as the subject of learning, the workplace as the focus for learning
- Workplace projects

At minimum WBL is used to describe the completion of work based assessment on an otherwise conventional programme by means of experiential learning and/or the completion of a work placement as part of a formal programme (Raelin 2008). In its most developed forms WBL involves the delivery of an entire programme leading to a recognised award, such as a Bachelor or Postgraduate degree either negotiated with or created by an employing organisation and/or with individual (Lester and Costley 2010). In this sense it represents an alternative to the traditional ‘transmission model’ of didactic instruction in universities so that adults construct a curriculum relevant to their ongoing learning requirements in the workplace (Walsh 2008).

The rise of MOOCs

The term MOOC was coined in 2008 when George Siemens and Stephen Downes at the University of Manitoba created a course for 25 paying undergraduates as well as 2000 members of the public who were able to access the course and undertake assessment for free (Hill 2012). Giving content away for free was not an entirely new idea. The Massachusetts Institute of Technology has been doing it since 2002 (Haber 2014) and the Irish site ALISON created the first purpose designed, freely available electronic learning platform in 2007 (Brown et al 2015). In 2011 Stanford University created three MOOCs, which all enrolled over 100,000 registrants. Thereafter, a series of MOOCs appeared. Most of the leading ‘brands’ are connected to highly ranked universities such as MIT and Harvard (edX) often in consortia (Krause and Lowe 2014; Nanfito 2014).

MOOCs are conventionally divided into two types- cMOOCs and xMOOCs although not all scholars find this is a useful distinction (Bayne and Ross 2013) while others distinguish between cMOOCs, xMOOCs and hybrid models (Anders 2015).

Connectivist or cMOOCs are similar to Siemens and Downes original model and are designed to create a network for learning where participants co-create content. Unlike a more traditional approach to learning they not begin with a curriculum with associated content but develop in accordance with the wishes and preferences of the participants. The linking element in most cMOOCs is a shared hashtag which enables all participants to participate in whatever activities occur (Stewart 2013). Examples of cMOOCs include Peer2Peer and Personal Learning Environments, Networks, and Knowledge (PLENK) (Andersen and Ponti 2014; Fournier, Kop and Durand 2014).

xMOOCs are the type of platform most people are familiar with. They employ a more traditional centrally directed, instructivist, content driven approach to learning (Rodriquez 2012). Programmes of learning are typically highly structured, often led by an academic using videos and a series of supporting materials such as selected readings from freely available sources. There is often summative testing, usually in the form of a quiz which can be assessed automatically. Some more recent examples have attempted to incorporate more constructivist approaches to learning but the essential model is unchanged (Poplar 2014).

In their brief existence MOOCs have enjoyed a fluctuating reputation. It is probably true to say that the peak of interest in MOOCs was in 2012- branded by some as the “Year of the MOOC”. During this year many of the best known platforms started, such as edX, Coursera, and Udacity (Pappano 2012). There was then something of a backlash in 2013

and 2014. Some like Bates (2012) see them as just another form of distance learning. Others such as Yuan and Powell (2013), Fischer (2014) Hill (2013) and Selingo (2014) criticise the low completion rates, variable quality, lack of financial sustainability and evidence that their principal users are not the disadvantaged but well-educated professionals. MOOC advocates contend that we are now beginning to understand better what they can and cannot do and finding practical ways to deal with problems such as low completion rates (Evans, Baker and Dee 2016).

As we have already noted the lack of academic credit is also an issue which some see as a major constraint on their likely development (Kolowich 2013a; Nkyubwatsi 2014; Valkenburg et al 2014; Muhlstein-Joliette 2014; Sharrock 2015). Providers of MOOCs are aware of the issue of accreditation. The Saylor Foundation now offers three routes to accreditation from its programmes- either by exam facilitated by Saylor, alignment of Saylor courses with existing credit rated exams or accredited exams elsewhere aligning themselves with Saylor programmes. (Hilton, Murphy and Ritter 2014). Similarly Udacity offers the opportunity for accreditation by exam through Georgia Tech (Udacity 2016). However in neither case does the provider recognise the potential for the use of their MOOCs as the basis for RPL claims.

From the perspective of those who believe MOOCs provide an opportunity for Non-formal learning which has the potential to be translated into formal learning there are two issues. First there appear to be few institutions where MOOC learning can be translated into formal academic credit (Conrad 2013; Moss 2013). A second constraint identified by Schuwer et al (2015) is that those outside the European Qualification Framework do not have a readily comprehensive framework to translate MOOC

learning into. Indeed many writers see the European Credit Transfer system as an opportunity for European universities to steal a march on those outside the European Higher Education Area (Cooperman 2014; Naert 2014; Nkuyubwatsi, 2014; Santos, Costa and Aparicio 2014; Dillenbourg 2015).

The research

The present research aims to establish the level of awareness of MOOCs and willingness to accept them as acceptable evidence of past learning among those most likely to do so. A secondary issue is to investigate whether tutors engaged in delivering WBL are using MOOCs and other online materials as a learning resource- whether there are other examples of re-purposing

Although the decision was taken to restrict the study to WBL departments in England and Wales there has been no attempted systematic survey of who is engaged in it. The largest survey is Nixon et. al. (2006) but it is over a decade old and does not claim to be comprehensive. One of the problems for the researcher was therefore to identify where WBL is occurring in English and Welsh universities. This was undertaken using a variety of informal means, accessing publicly available online information allied with knowledge from informal professional networks. It is acknowledged that this is far from systematic but the aim was to identify professional practices associated with WBL not identify every centre of practice. In total out of 137 universities in England and Wales a total of 41 were believed to be substantially engaged in some form of WBL. This is likely to be an under-estimate since it excluded WBL where it is embedded in a subject

discipline or where it is practised in subsidiary companies wholly owned by a university. Even so, 41 was a far higher than expected so that an unintended consequence of the survey is the suggestion that there are far more students in UK higher education engaged in WBL than previously assumed. Given the limited time and resources a questionnaire was sent to academic heads of departments rather than all tutors. The survey assumed heads would be able to speak on behalf of their departments with a reasonable degree of accuracy. In all, 26 responses were obtained, giving an overall response rate of 63%.

Survey findings

Work based learning- practice and numbers

One of the most interesting aspects of the research although it was not intended was that it gave some indication both of the varieties of WBL practice and the numbers of students now engaged in some form of WBL. Figure 1 shows the varieties of WBL practice in relation to the curriculum. Al, except one of the universities use the term 'Work based learning' but it is clear it has different meanings to academic practitioners. For some it is used to describe work placements for full time undergraduates. For others it means a fully negotiable programme aimed at adult part time learners. Some universities use the term for different practices. The survey identified 16 universities with an approach to the curriculum which includes either exclusive or substantial experiential learning where it might be expected there are often claims for past least learning.

FIGURE 1 HERE.

The major surprise of the research is the number of students who are now engaged in some form of it. Respondents were not asked for exact numbers but instead asked to estimate a range (see Figure 2).

FIGURE TWO HERE.

All but one respondent answered this question and with hindsight it is clear that the range offered was not sufficient to capture the numbers involved. Of those responding 11 indicated there are more than a thousand students engaged in some form of WBL at their university. From the numbers indicated we can deduce there are at least 13,000 students in England and Wales doing some form of WBL but this is likely to be a considerable under-estimate. We will return to this issue in the Discussion (below).

Work based learning and online learning resources

Prior to asking about their attitudes and use of MOOCs as the basis for claims for past learning respondents were asked a series of questions about their creation and use of e-learning and online resources. All respondents indicated their departments provided students with online materials created specifically for their programmes although only a minority (seven out of 26) used materials exclusively produced by WBL tutors; three departments rely solely on materials created elsewhere in the university while a majority (16) use materials created both by the department and elsewhere in the university.

Virtually all WBL departments are actively engaged in created either a programme VLE (13 respondents) or were engaged increasing content for a VLE (18 respondents) or for specific modules (15 each for experiential modules and subject specific modules) while others were also involved in creating online materials to support study skills (7

respondents). There are a wider variety of persons involved in creating material including tutors, programme leaders, librarians, IT specialists and in one case, administrators. In addition to creating content all but one of the respondents indicated that students are directed to online journals, e-books, online study guides and other online resources held by the library.

In addition to encouraging students to access in-house e-resources WBL students are also being directed to a variety of external online sources. Figure 3 illustrates that students are referred to a variety of external online academic gateways, professional and other organisations websites, Government sites and other authoritative sites such as the BBC.

FIGURE 3 HERE

What is interesting about this is WBL tutors appear to place less trust in Wikipedia- only four respondents saying they would 'Encourage' or 'Strongly encourage' its use; by contrast six departments 'Discourage' its use and six 'Strongly discourage'. The reliability of Wikipedia is a hotly debated topic and there is a very useful summary of the debate- on Wikipedia (2016). WBL, or at least those speaking on their behalf appear very sceptical about the value of Wikipedia.

WBL departments also appear less familiar with other freely available sources such as online books. Only four directed students to Google books, two to Bookboon and one each to Boundless, Wikibooks, Chegg and Stax Open College. Students appear to find such online books useful since nine departments reported instances of students using Google books and four Wikibooks without being directed to do so. No other sources of

online books were used by students but this suggests that more direction in this area might be valuable for some students. Educational videos are another source of freely available learning resources with evidence gain that students are accessing these materials without necessarily being directed to do so. The most popular resource is Youtube where 15 departments had directed students), Flickr (five departments) and the Khan Academy (three departments). Other mentioned sources (one response) were Vimeo and box of Broadcasts. Again students appear to be accessing more popular sites undirected- Youtube (14 recorded instances), Flickr (6 recorded instances) and the Khan academy (1 instance). As with online books this again suggests that students welcome the opportunity to access such resources. The Khan Academy, which has over 9000 educational videos aimed at students in higher education is a particularly valuable resource. A similar pattern of under-use emerged in respect of other academic resources.

FIGURE FOUR HERE

As Figure 4 illustrates by far the most popular source among WBL departments and students accessing on their account is Google Scholar (14 each). All other sources, including Open Tapestry, Connexions, Tutor2U, Meded, Wikieducator and the now defunct Learning from WOerK received relatively few mentions. It would seem that MOOCs as a learning resource are under-utilised by WBL tutors and students.

FIGURE FIVE HERE

Figure 5 summarises the use of MOOCs by WBL departments. The important point here is that the majority are not directing students to MOOCs or are finding examples of

students using them undirected. Of those who direct students the most popular is the Open University's Futurelearn (10 respondents). Other mentioned sites include Coursera, Udacity, edX, Alison and Saylor. This low referral may reflect the content of MOOC courses which may not align with the needs of WBL students. It is noticeable that much of the content on MOOCs is in the area of physical sciences- in Becher's (1989) terms Hard Pure (Science) and Hard Applied (Technology)- rather than soft pure (arts) and soft applied (health, social studies). Coughlan and Perryman (2011) have noted the reluctance of the latter to contribute content to MOOCs. Given that Udacity offers short programmes which are explicitly tailored for continuing professional development this is a little surprising. Most surprising of all is the seemingly low awareness of Saylor which does contain the sort of generic business and management material which provides the bedrock for much WBL learning.

Given the low levels of engagement with MOOCs there is little indication that WBL departments are ready to accept the completion of a MOOC course as the basis for A/RPL. Two universities in the survey will not accept any form of prior learning and a further three will not accept any such claims unless it is accredited- which learning from a MOOC plainly is not. There are also many other barriers in the 21 institutions where in theory at least a MOOC certificate could be used as the basis for an A/RPL claim. For example only two universities only allow its use for admissions purposes and only four will allow a student's programme of learning to be adjusted to adapt to their previous learning achievements. The rest expect the student's learning to be consistent with pre-set programme learning outcomes. As Figure 6 illustrates only five WBL departments indicated they would accept a MOOC certificate as the basis for an A/RPL claim,

compared with 14 for an accredited professional qualification or even seven from a non-NARIC recognised university.

FIGURE SIX

The picture of suspicion of MOOC certificates is reinforced by other responses. Only three departments said they would 'probably' accept learning evidenced after automated assessment- which is how MOOCs assess. Slightly more- five- indicated they would 'probably' accept a qualification from an entirely online source as the basis for a claim. If WBL departments are indeed those most actively engaged in recognising prior learning in British higher education, few of them seem ready to accept evidence from learning gained from a MOOC.

Discussion

The main finding from this survey is that few WBL departments in England and Wales, who might be expected to do so are either not ready to access MOOC learning materials or accept MOOC learning as the basis for A/RPL claims. Given their role as the main practitioners of A/RPL practices in the UK it seems unlikely that few if any British or certainly English and Welsh universities will accept them. Whatever the role of MOOCs in lifelong learning, it seems unlikely that they will have much of a role in enabling their users to gain academic credit as a result of completing a MOOC course, contrary to the hopes of their advocates.

This finding is not altogether surprising given the relative lack of engagement WBL departments exhibit in respect of freely available learning resources. Other studies also reveal little evidence that academic tutors are using MOOC learning materials as part of their programmes of learning (Firmin et al 2014; Israel 2015). It seems WBL departments still see the production of content as an important part of their role. The survey has revealed very little evidence of what MacFarlane (2010) calls ‘unbundling’- where tutors cede responsibility for at least some of the traditional academic role.

This study has concentrated upon the willingness of tutors to recognise MOOC learning as the basis for A/RPL. This ignores the question as to whether learners who complete MOOC courses are interested in gaining credit or formal qualifications. The evidence from other studies is that on the whole, few are. Hew and Cheung (2014) for example identify four reasons by learners for accessing MOOCs- but the list does not include on their list a desire to obtain a formal qualification. Fini (2009) in a small survey of students undertaking the first MOOC course at Manitoba also found few were interested in gaining credit. When Colorado State University-Global Campus became the first college in the United States to allow students who passed a MOOC course to take an exam to obtain formal credit but after a year no one had (Kolowich 2013b). Similarly *LearningCounts*, which advises students on how to convert learning into credit reported very little interest from students (Hilton, Murphy and Ritter 2014). In the UK the same report which foresaw a need for the accreditation of MOOC courses found little interest from those undertaking courses (Department for Business Innovation and Skills 2013, p. 5). The apparent lack of interest in accreditation may be because the majority of those completing MOOC courses do not really need formal qualifications- the majority are already well qualified and have good jobs (Chernova, 2013; Emanuel et al., 2013

Selingo 2014; Ros and Gans 2015; Macleod et. al. 2015). Collectively their profile resembles that researchers have identified as the principal consumers of Non-formal learning in all contexts- graduates often with higher degrees in well paid, high status occupations (Nilsson and Rubenson 2014).

Taking all these findings together it is becoming clear that while MOOCs play a role in lifelong learning it is not to provide free education for those who would otherwise be unable to access it but rather to provide unaccredited Continuing Professional Development for those in well paid positions (Evans and Myrick 2015). This is exemplified by the change in provision on one of the first MOOC platforms, hosted by Stanford University, Udacity. In 2013 they moved away from general education and toward professional development (Chafkin, 2013). An American survey of employers found that 73% said they would take into account the achievements of someone who had completed a MOOC course in appointment decisions. The same survey found that unlike universities some companies (7%) are already using them as part of their in-house training programmes (Castellano 2014). It seems the role MOOCs will play in lifelong learning is essentially in non-formal learning for those already possessing the qualities essential to successfully compete in the globalised labour market, with only occasional translation into formal academic qualifications.

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