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Chapter 8: The Challenges of Massive Open Online Courses (MOOCs)

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Abstract

Since their inception in 2012, the most significant challenge faced in the production and presentation of Massive Open Online Courses (MOOCs) has been how to engage and retain learners. Although often heralded as the next step in the evolution of online education, even if MOOCs represent a revolution in terms of the number of learners signing-up, they leave a lot to be desired with respect to the number of people who actually complete a course. This chapter explores some of the issues involved in retaining learners and focuses on the design and development of one MOOC (Forensic Psychology: Witness Investigation by The Open University on the FutureLearn platform), which experimented with new ways to keep learners engaged. The course utilised a narrative approach, with a storyline running throughout, and was released in a serialised fashion. Analysis revealed a relatively high rate of retention and the use of narrative devices at the end of each week appeared to entice learners to return the following week to find out what happened next. As a result, learners were more likely to drop out mid-week than between weeks. The implications this might have for learning design and the development of MOOCs are discussed.

Keywords

MOOCs; learner retention; learner engagement; narrative approach; online learning

Introduction

Recognising some of the challenges of engaging and retaining learners in online courses, this chapter considers issues of learning design and audience engagement in the development of Massive Open Online Courses – MOOCs. We outline the rapid evolution of this field and note some of the tensions around concepts of openness and engaging and retaining learners. Drawing on our experiences of designing a Forensic Psychology MOOC specifically with learner retention in mind, and our analysis of retention patterns, we consider the positive impact of a serialised story-telling approach to maintaining learning engagement for the duration of an eight week course.

A Brief History of MOOCs

Massive Open Online Courses (MOOCs) are online courses which do not restrict admission, either in terms of the number of learners that can be recruited or the educational qualifications of those learners. Although no definitions or quantification exist that allow a precise categorisation of which courses might be designated as a MOOC, broadly speaking the term is considered to involve an educational experience which is:

- Massive – due to uncapped registration (the number required to be considered ‘massive’ is subjective and widely debated).
- Open – in that registration is available to anyone and does not require previous study or existing qualifications; in addition, most MOOCs are free, although some do charge for entry and many charge for certificates.
- Online – with no requirement for face-to-face attendance, though some MOOCs conduct meet-ups or are used as part of flipped classrooms where students view lecture materials at home prior to taking part in activities and discussion; (unlike more conventional ‘homework’ which takes place following class activity, hence the description ‘flipped’).
- Course – the concept of a pedagogically designed learning journey.

Although they have had significant appeal, as we will explain, the challenges involved in creating a successful MOOC have arguably been even more significant.

The history of MOOCs has been one of rapid evolution that has yet to stabilise (Mackness, Mak and Williams 2010). The term was first used in 2008 by educational researchers Dave Cormier (University of Prince Edward Island) and Bryan Alexander (National Institute of Technology in Liberal Education) in reference to a course called “Connectivism and Connective Knowledge/2008” (often referred to as CCK8). Created by two researchers in the field of online learning, Stephen Downes and George Siemens (see Downes, 2007, and Siemens, 2005), CCK8 was based on a standard campus course at the University of Manitoba and was taken by a combination of Manitoba students and online learners from the general population. Drawing on the authors’ expertise in learning based on connectivism theory, the course used a variety of online educational (e.g. Moodle) and social platforms (e.g. FaceBook) and encouraged learners to create content collaboratively through the use of forums, wikis and other tools (Downes and Siemens, 2011). This resulted in a large, organic, but interconnected community of over 2,200 learners each with their own personal learning environment (Siemens, 2013) and pushed the boundaries of connectivism through ‘knowledge distributed across a network of connections’ (Downes, 2007).

This approach to MOOCs, using a connectivist approach whereby content was co-created by learners, was labelled by Downes as a cMOOC, whilst MOOCs following a more traditional learning approach, in which expert teachers provide a set syllabus of learning material to students, was labelled an xMOOC (Prpić, Melton, Taeihagh, and Anderson, 2015). As well as there being different types of MOOCs, there have also been a plethora of different styles of open online course, and associated acronyms, including:

- TORQUE – Tiny, Open-with-Restrictions, focused on Quality and Effectiveness
- DOCC – Distributed Online Collaborative Courses
- SMOC – Synchronous Massive Online Courses
- SPOC – Small Private Online Courses
- BOOC – Big Open Online Courses

- Corporate MOOC – developed solely for the Continuing Professional Development market
- MOCC – Massive Online Closed Course

Regardless of the acronym, these courses share commonalities in that they are all open (albeit in various forms), online and adhere to a course-like structure.

MOOCs arguably entered into mainstream higher education in 2012, when Sebastian Thrun and Peter Norvig, two professors from Stanford, presented a free online course titled “Introduction to Artificial Intelligence”. The course globally attracted over 160,000 learners (many from within the academic community) and was described by Mehaffy (2012) as the first *truly* ‘massive’ open online course. From this course Thrun and Norvig built the foundations of their MOOC platform, Udacity.

Further MOOC platform announcements from Stanford continued in 2012, with the launch of Coursera by Daphne Koller and Andrew Ng, and the University itself launching two further platforms; Class2Go and NovoEd. In the same year Stanford also announced an alliance with the not-for-profit MOOC platform edX (launched in 2013 by Harvard and MIT). In 2012 the United Kingdom entered the MOOC platform arena with an announcement from The Open University regarding the launch of FutureLearn. This was an initiative led by The Open University, but conducted in partnership with the British Library, British Council, British Museum and over 20 UK universities. Such initiatives were not confined to America, Canada and the United Kingdom, as further MOOC platforms were soon launched in Australia (Open2Study) and Germany (iversity) (Lewin, 2013). It was unsurprising, therefore, that 2012 was soon dubbed “The Year of the MOOC” (Pappano, 2012).

The development of so many different MOOC platforms, each operating different business and pedagogical models, along with the absence of any agreed and decisive specification for a MOOC, led to a rather organic evolution of the concept. In addition, each platform differed in terms of what was offered, leading to different experiences, goals and outcomes for the learner, including: subject content; methods

for completion; assessment and examination; certification, badging, and for-credit options. The fundamental look and operation of each platform was also quite different, built as they were on different frameworks and scripting languages. In effect, the development of MOOCs has not adhered to any universal principles. Furthermore, many additional platforms emerged within a similar timeframe to those mentioned previously, including Saylor Foundation, Khan Academy, Google Course Builder, Peer-to-Peer University (P2 PU), Udemy and ALISON, but were labelled as ‘quasi-MOOCs’ by Siemens (2013), as their offerings were outside of the university system and because courses were offered through self-paced, perpetual presentation cycles.

Designing MOOCs Based on Available Data

Even with such a complex landscape to navigate, the appeal of MOOCs is clearly a global one that transcends many of the boundaries, such as those associated with location, time (with options for perpetual or repeated presentation cycles), nationality, age, and professional and educational prerequisites, that are a common feature of more traditional approaches to delivering higher education. Although such openness appears to challenge concepts of access and selection based on prior achievement that are commonplace throughout the global university sector, it is important to note that whilst MOOCs do not place mandatory conditions on entry, many state that knowledge to a certain level or in a specific academic field is beneficial prior to registering for a course.

So, although the only requirement to register for a MOOC is that the learner has access to the internet, it is not the case that all learners will be able to follow or cope with the material presented post-registration. This problematizes constructions of openness for MOOCs, and it is important to distinguish between a course being open simply in terms of allowing anyone to register, from being open in a way that also allows any learner, or at least a non-specialist one, to be able to complete the course successfully. Even if the level and complexity of the material presented is a limiting factor to how truly open a MOOC might

be, one important element relating to openness that is offered by MOOCs is that they provide learners with a means of engaging with learning materials asynchronously. This means it is possible for the learner to progress at a pace according to their own schedule, so that the course can be fitted around other demands that might prevent the learner from engaging with more traditional forms of education. In many ways, this latter feature of MOOCs is as important in making them open as is the removal of formal entry requirements. Indeed, if one thinks in terms of learners being able to complete a course rather than simply being able to register for it, then it may be an even more important feature of openness.

As a result of having an open registration policy and allowing the learner to schedule their own learning, MOOCs have an obvious place within a social mission for the advancement of widening participation in the education sector. In addition, there is also a place for MOOCs within other parts of the socio-economic hierarchy. This includes, for example, middle class families embarking on learning through MOOCs as a method to offset the rising costs of education (Thrift, 2013). As a result, the population of MOOC learners is truly a heterogeneous one on a large scale.

Despite the large investment in MOOCs and their platforms by the various providers, MOOCs have not yet evolved enough to provide a number of important pedagogical elements, including thorough peer assessment methodologies and tools for dealing with plagiarism and online cheating. In addition, MOOC platforms have generally failed to provide high, stabilised retention rates, robust business models, resoundingly engaging learning design or presentation without technical difficulty. These problems led Creed-Dikeogu and Clark (2013) to conclude that “MOOCs are not an educational panacea” and have, so far at least, failed to live up to earlier expectations that they would be the vanguard of a revolution in higher education provision and funding.

Additional problems can arise as a result of MOOCs being both massive and open. For one thing, although MOOC platforms originated in the West, learners from across the globe can register for the

courses. Whilst this produces a richly diverse learner population it does pose additional challenges to those noted above:

- Learners can access content and post discussions 24 hours a day with no barriers to time zones, which can cause issues with facilitation and group work,
- Learners have varied digital and information literacy skills so the ability to read, understand, search, analyse, and discuss content can be considerably more problematic than amongst a traditional cohort of students
- MOOCs are generally presented in English, though this may not be the learner's first language
- Learners may have different cultural viewpoints regarding the content presented that can make the discussions generated more complex and harder to navigate.

Unfortunately, and even though the number of learners who take MOOCs is certainly in a multiple of millions, the data available on MOOC learners that could be used as the basis from which to attempt to address the challenges outlined above are limited. Relevant data are not widely shared across the MOOC community due to the different business models of each of the various platforms and because the platforms are financial competitors. This results in a heavy reliance on academic papers where data are referred to, such as Kolowich (2012a and 2012b), even though the data may have changed in subsequent years. This poses an additional challenge for MOOC authors in gaining insight into the demographics of such a large heterogeneous population and in assessing rates associated with engagement and completion.

Due to the continuing competitive nature of MOOCs, it is not expected that large quantities of data will be released in the near future. The lack of available data compounds the ongoing challenge that the learning designs of MOOCs, and MOOC platforms, are continually evolving, which means any study of the status quo can quickly become outdated.

Data are limited not only in terms of the demographics and behavioural patterns of the learners registered for each MOOC, but by the variety of platforms (each having their own learning style) and the number of

presentations of each MOOC which make comparisons across courses a complex affair indeed. Despite such limitations, data are available and analysis has demonstrated that MOOC learners tend to be university educated, to have attempted or completed higher level academic study at some point in their lives and may well have an affiliation to their chosen subject area prior to registering (Zhenghao et al. 2015).

Importantly, and a point that is central to the case study we will be looking at in this chapter, the available data have also revealed that although registrations for MOOCs often number in the tens (if not hundreds) of thousands, the number of learners *completing* the courses tends to be just a few percent of those who start (Onah et al, 2014). In other words MOOCs appear to suffer from very poor retention and completion rates.

Analysis of retention and completion rates is hampered because (as stated above) data are not widely shared between MOOC providers, making it difficult to determine rates across the sector. As a result, individual providers can explore factors such as individual and group motivation, learner behaviours in discussions and forums, and the uses (both positive and negative) of the impact of technological and pedagogical design, but these data will inevitably be isolated to just one provider. This leads to a limited understanding of the “levers of change” (Kraut and Resnick, 2010) of the wider MOOC community, and can act as a barrier to designing alternative tools likely to be more engaging, using varying forms of communication, and employing different systems of rewards and feedback (Kraut and Resnick, 2010).

Understanding learning design and its impact on the learners may assist in fostering a culture of commitment to learner engagement in the MOOC community. It is theorised that committed learners are more active, leading to healthier social learning communities (Blanchard and Markus, 2004; Rodgers and Chen, 2006; Fisher et al. 2006). However, it is possible for a learner to be just as committed and engaged without being active socially, through reading and reflecting on course content and the interactions of others.

Regarding the future of MOOCs, some notable commentators have proclaimed that the MOOC is “dead” (Charbonneau 2013; Weller 2013), but it could be that the future of open online courses is one of shape-shifting rather than one of demise. MOOC content providers and platform hosts continually adapt their MOOCs and their platforms depending on the statistics that they have. With the movement towards MOOCs for-credit by a number of institutions including Georgia Institute of Technology, University of Illinois, University of Colorado, MIT, The Open University and the University of Leeds to name but a few, the evolution of MOOC offerings continues. For example, Udacity has launched a range of professionally endorsed nanodegrees (a short, 6-12 month, online degree) with Google, Amazon Web Services, GitHub, Facebook and Mercedes Benz.

MOOC Engagement

One of the largest challenges facing MOOCs is undoubtedly engagement, with poor engagement undoubtedly contributing to poor completion rates. The majority of studies focusing upon learner engagement have taken place within a classroom setting, and engagement is normally based on class attendance, interaction with discussion and grades achieved (Ramesh et al, 2013). Such factors are not easily observable in open courses so it is difficult to use these traditional markers in evaluating engagement rates with MOOCs.

Ramesh et al. (2013) classify learner engagement into three categories: Active Engagement, Passive Engagement and Disengaged. Though the classification for a disengaged learner is identified by a decrease in their level of posting, viewing, voting and assessment submission, it may be that the learner is not disengaged per se, but is instead developing a ‘lurking’ or passive engagement approach by following activity rather than engaging personally in visible learning activity (Milligan et al, 2013) or is becoming a strategic learner by applying ‘surface-level processing’ (Biggs, Kember, and Leung, 2001; Tagg, 2003).

In situations such as this, data based on page analytics are not enough to clarify whether the activity is ‘clicking or learning’ (Reich, 2015) without actually making contact with learners to understand more.

It is also possible that learners may be displaying the characteristics of ‘uncourse’ (Hirst, 2009) whereby they are not learning in the linear path set out by the course and therefore not engaging in the forums and discussions as and when expected. The learner may not see themselves as being disengaged, but rather adapting the course to suit their needs as a self-directed learner (Belz and Muller-Hartman, 2003). As open courses attract such high numbers and have diverse learner populations, the development of autonomy in approaches to learning is to be expected (Mackness et al., 2010). Therefore, not all learners can be expected to learn the course exactly as the educator had planned it. This creates an additional problem because the data frequently used to analyse MOOCs are taken at the course start and end dates. If a learner does not complete the course within these dates then they are deemed as disengaged, but may of course go on to complete it later. As MOOCs are a form of informal learning, it must be considered that learners have a more relaxed view as to the importance of the end date and therefore they can create an ‘engagement gap’. In addition, learners may find the embedded conversations disparate and overwhelming due to the large volume of learners (Lau, 2014), which again can cause problems in determining engagement through data relating to active posting.

Research has been conducted on the use of videos and forums in open courses (Sinha et al., 2014a; Ramesh et al., 2014; Rosé et al., 2014; Wen et al., 2014a, Wen et al., 2014b; Yang et al., 2013), however, little research has been conducted into how learners view all component parts of a course collectively (e.g. forums, videos, articles, transcripts, quizzes, and activities) or which they prefer to engage, or not engage, with. This causes problems if an approach assumes there is consistency across learners as one size does not necessarily fit all (Sinha et al., 2013; Lie et al., 2014; Sinha, 2014b). Understanding what learners perceive to be disengaging is just as important as what they perceive to be engaging as the motivation to learn can be fragile (Barnett, 2007). As demonstrated through the literature currently available, engagement is an outcome often used to evaluate open online courses (Ahn et al., 2013, Yang

et al., 2013, Yuan and Powell, 2013, Glance et al., 2014). However, it is a term that is not clearly defined and the entity of engagement itself is not tangible as it tends to be measured primarily through course completion data which, as discussed above, is subject to other contributing factors.

Improving engagement in a MOOC

As Creed-Dikeogu and Clark (2013) concluded, MOOCs do not seem to have turned out to be a panacea for widening participation in higher education and, moreover, suffer from serious problems with regards to learner engagement and retention. Although it is easy to be dismissive of the potential of MOOCs as a result of these problems, it is also the case that MOOCs are still a relatively new concept and that the design of many initial MOOCs did not sufficiently take account of the wealth of previous research findings related to effective online learning. This raises the question of whether it is possible to design a MOOC with significantly better retention, and it is this question that we will now explore in relation to the design of one particular Open University FutureLearn course. A number of factors are likely to impact retention, including the length of the course and also the topic covered. As both these factors were determined as part of an institutional strategy and were not under our control, we will instead focus on the elements, most notably relating to learning design, over which we did have control.

The course was on Forensic Psychology, and the original plan was to base it on existing Open University distance learning material, particularly footage from an Open University/BBC 2 coproduced TV series called 'Eyewitness', which followed Greater Manchester Police as they investigated mock crimes that had been staged by the producers in front of volunteer witnesses. The course was to last 8 'weeks', with each week consisting of material taking 3 hours to study. Although the suggestion to learners would be that they work through the course a week at a time (so that a course 'week' equated to a calendar week), as with other FutureLearn courses the entire course would be available the day it was scheduled to begin.

The initial learning design for the course very much followed the standard format for xMOOCs, and was to begin each week with a video introduction setting the scene, followed by largely text-based units introducing key theories, research, principles and concepts from forensic psychology relevant to obtaining information from eyewitnesses. Footage from the TV series, in the form of short videos, would then be used to illustrate the points being made in the text. Learners would be able to test their understanding of the material using multiple choice quizzes. This design was largely an online reproduction of the format used in many face-to-face lectures and seminars, and also mirrored the approach taken on other online courses.

As an example, one section of the course was to explore the use of the cognitive interview, which is employed by many police forces and based on psychological techniques for maximising the accuracy of recall (Fisher and Geiselman, 1992). This would be done through text describing the procedure and the research that had been conducted to evaluate it, and then showing footage from the Eyewitness series in which an officer uses the cognitive interview.

Nearing the end of the learning design process it became apparent that copyright issues would restrict the amount of footage that could be used from the TV series, which necessitated replanning the course. At this point, and as a result of research highlighting poor engagement and completion rates (see, for example, Kizilcec, Piech and Schneider, 2013) it was decided to focus more upon possible mechanisms that would improve learner retention and engagement across the eight weeks of the course. As a result the course was reconceptualised as a ‘whodunnit’ style story, in which learners would follow (fictional) detectives as they investigated a crime. The psychological theory and research would be introduced at relevant points throughout this story in a similar fashion to DVD extras which offer a behind-the-scenes look at a feature film.

Much research has been conducted into the role that narrative structure can have in learning and memory for information. For example, Kulkofsky, Wang and Ceci (2008) found that narrative cohesion was linked

to accuracy of remembering in children aged 3 to 5, and Wang, Bui and Song (2015) showed that encoding information in a narrative form helped improve accuracy when memory for a story was tested 6 months later. However, in relation to MOOCs, it is the retention of learners rather than the learners' retention of information that is the key challenge. Although a narrative structure could make information easier to learn, and this might positively impact retention, there are other elements of narrative structure that could be more directly beneficial.

In this case a story was constructed about two fictional detectives, one (DI Jake Bullet) to represent an old fashioned style of policing based on hunches, and one (DS Lara Sund) to represent a more modern, evidence based form of policing that incorporates findings from psychological research. Each detective investigated an armed robbery that had been staged for the Eyewitness TV series, interviewing witnesses and obtaining evidence according to their own distinctive approach.

This is illustrated in the example of the cognitive interview. In the redesigned course witness interviewing was initially introduced by audio material following DI Bullet as he interviewed the witnesses. Learners then evaluated the evidence gained, before learning about the dos and don'ts of interviewing based on psychological research, before being introduced to the cognitive interview. They then heard DS Sund use the cognitive interview, before evaluating the evidence gained and comparing the techniques used by Bullet and Sund. Thus, teaching the cognitive interview was based within an overall narrative relating to the ongoing investigations, as well as using a specific narrative device of showing the 'wrong' way to do something, before showing the benefits of an alternative approach, that also mirrored the development of police interviewing techniques in the real world.

Although the provision for self-paced and scheduled study is undoubtedly a feature of MOOCs that is important in supporting a widening participation audience, particularly in that it makes study amenable to those with employment and carer responsibilities, it is not without its disadvantages as a pedagogic tool. The issue is primarily one of motivation (see Littlejohn, Hood, Milligan and Mustain, 2016), notably that

self-motivation is acknowledged as a key problem for learners in all types of education, but perhaps particularly in distance/correspondence education. As progression through the course is entirely learner-paced and no deadlines are imposed, motivation to continue is undoubtedly one of the factors that has caused the low retention and completion rates in MOOCs for which there are zero barriers to exit.

Although imposing deadlines and study rates would unpick one of the fundamental elements that makes a MOOC a MOOC, and be problematic for those with demanding employment and carer responsibilities, it is possible to change one aspect of MOOC delivery that could impact motivation and engagement whilst avoiding these downsides. The standard approach to presenting a MOOC is to allow learners access to the entire course once they have registered. Even if later elements of the course cannot be accessed until earlier sections have been navigated, it is possible for a learner to complete the entire course immediately once it has been released. An alternative approach involves the serial release of discrete learning units, even if completion of each unit remains learner-paced. The advantage of such an approach is that new points of engagement/re-engagement are introduced that could act to motivate/re-motivate learners, whilst the obvious disadvantage is that it would stop a learner keen to complete the course in a reduced timeframe and potentially require learners to engage with the course over a much longer time period. This is a similar distinction, with similar issues regarding retention, to that of box-set binge watching compared with the weekly release of TV show episodes.

The serialisation approach seemed particularly apposite given the narrative elements used in the learning design, which also provided a rationale for holding back later weeks so as to avoid plot spoilers. Thus, each week revealed a little more about the ongoing investigations of the two detectives and focused on different types of evidence and the psychology behind these. The hope was that learners would get caught up in the stories in a similar fashion to reading a crime novel, and that wanting to find out whodunit would keep them engaged to the end of the course (at which point they would get to watch the crime as it had been committed and also see whether a team of detectives from the Greater Manchester Police had been able to solve it).

Evaluating the Forensic Psychology MOOC

As discussed above, there are a number of ways of evaluating the success of a MOOC in terms of engaging learners, but as the main aim of utilising a narrative approach to learning design was to attempt to retain the engagement of learners throughout the course, evaluation here will focus on the number of learners completing each week of the course.

In Figure 1 data are presented regarding the percentage of learners who completed the first and last ‘steps’ (a FutureLearn term equating to activity) in each of the eight weeks.

Figure 1: Retention of learners over the eight weeks of the course

As can be seen from Figure 1, there was a large loss (34.32%) of learners during week 1, but a much reduced rate of loss with each subsequent week so that comparatively few learners dropped out once they reached week 4. The apparent drop at the end of week 8 which does not quite follow the pattern from previous weeks could be an artefact of learners completing the entire course, but not the very final step which contained information about further courses rather than being a substantive part of the course itself.

Further analysis of the data presented in Figure 1 revealed that on average 3.87% of learners who completed the previous week (or started the course with respect to week 1) did not study the subsequent week; whilst 11.96% of learners who began studying a week did not complete that week. In other words, mean drop-out of learners was 3.87% between weeks and 11.96% within weeks, indicating that learners are more likely to drop out mid-week than between weeks.

As can be seen from Figure 1, there was a particularly large loss of learners within week 1. Removing this atypical week and repeating the above analysis on the data from weeks 2 to 8, revealed the mean drop-out of learners between weeks was 3.27%, whilst the mean drop-out within weeks was still higher at 8.77%.

These results are somewhat surprising, as it may have been expected that a higher proportion of learners would drop out between weeks than within. To stick with the TV series analogy, it would seem logical to expect comparatively few viewers to stop watching mid-episode than to finish one episode but not start the next. Explaining this counter-intuitive result is problematic without comparable data from a course that did not use narrative devices and was not released in a serialised fashion, and this could be a useful focus for future research and evaluation. One possibility is that the story-like structure and desire to find out what happened next did act to motivate learners to come back to study each week. Some evidence for this was apparent in comments posted from learners who were keen to begin the next week once they had completed the present one.

Although further research and analyses, particularly comparison with other, differently structured courses, are needed, the relatively low drop-out rate between weeks does suggest that the narrative approach to learning design was successful in engaging, and in continuing to engage, learners. Indeed, it may be possible to use such narrative techniques to improve engagement further, particularly the use of devices such as cliffhangers that have been used to great effect in other media. Although no formal data are available for presentation here, the narrative design of the course did seem to impact positively the way in

which learners engaged through active posting. This was apparent in the number of comments and amount of discussion that focused upon the ongoing story and the two detectives within it.

While the largest drop-out of learners is always likely to be at the start of the course, it is also the case that for the Forensic Psychology MOOC described here, the start of the course focused on demonstrating the real world importance of eyewitness evidence and as a result did not contain as many narrative elements and devices as later weeks. Capturing the attention of learners and getting them caught up in a story right from the start of the course might be one way to combat the retention issue that is clearly a significant problem at this stage.

Conclusion

MOOCs offer an intriguing vehicle for widening participation in higher education, but although the available data has shown MOOCs to be very successful in terms of registration rates, they have been far less successful in terms of completion rates. It is critical, therefore, that their open nature is conceived as not simply as allowing anyone to register, but in constructing a learning environment and content that supports anyone who does register to complete the course. In this chapter we explored possible avenues for increasing learner's engagement with, and thereby completion of, the course by using a narrative structure, narrative devices and a serialised release of each week. The results showed a generally positive impact of this approach, and a much higher completion rate than has generally been reported for MOOCs, but also a counter-intuitive finding that learners were more likely to drop-out during a week than between weeks.

Tips and Points for Discussion

- Spend time considering the learner audience of the MOOC prior to learning design.
- Work with the features of the online platform to develop an effective learning design.
- Develop an engaging narrative for the course to encourage retention and completion.
- Don't be disheartened by learners dropping out of the course. Just because a learner doesn't complete every stage doesn't mean the course wasn't engaging, and it doesn't mean learners didn't achieve what they set out to do. Completion isn't the sole purpose of learning.
- Review data after a presentation to see where changes can be made and share findings.

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