



The Challenge and Opportunity for MOOCs for Teaching Writing

Joel Bloch
The Ohio State University, USA

Abstract

Massive Open Online Courses (MOOCs) have been touted as alternative approaches to face-to-face teaching and the design of learning spaces. MOOCs allow teachers to rearrange traditional classroom activities and use technologies sometimes in new and different ways to provide new ways of teaching. Recently, they have been implemented for the teaching of writing to provide greater access to these courses. I examine the possibilities and challenges of using these technologically-enhanced spaces for teaching composition. I first discuss the differences in the designs of MOOCs and how these approaches were applied to teaching writing. Based on my own participation in composition MOOCs as well as a variety of other MOOCs since 2008, I introduce three composition MOOCs, which although designed as L1 courses, involved thousands of participants with varying backgrounds from all over the world. I discuss how these MOOCs responded to challenges and how the participants could negotiate their own learning, such as by choosing which assignments they wanted to complete or determining how much peer review they wanted. I conclude that these courses demonstrate how MOOCs have created new learning spaces that can influence face-to-face approaches to teaching writing.

Introduction

Massive Open Online courses (MOOCs) have evolved since their introduction in 2008 into a popular and controversial learning environment (e.g. Cormier 2008a, Downes 2012, Koller 2014, and Siemens 2004). More recently, they have been used in teaching writing (e.g. Amidon et al. 2015; Comer and Canelas 2014, Friend 2013, Head 2013, 2014, Krause and Lowe 2014, and White 2014). The role of MOOCs in teaching writing was boosted when the Gates Foundation awarded grants to three universities and one community college to develop their existing writing courses into MOOCs (Moxley 2012). The potential for dramatically increasing the number of participants compared to traditional writing courses seemed to be a motivation for the Gates Foundation for offering grants. In the first round of grants, there were three university-level composition courses funded: first year composition courses from Duke University and Georgia Tech and a second-year writing course from The Ohio State University. While there had been previous MOOCs on writing, such as one on scientific writing sponsored by Stanford University, these three were the first attempts to transform existing composition courses into MOOCs and thus raise important issues about the relationship between traditional courses and these new forms of online courses. Moreover, they best reflect the initial attempt to integrate the different MOOC designs into the specific goals for teaching writing (Lowe 2014) and therefore are an important area of study to understand how online spaces can be transformed into writing classes.

These composition courses, however, were not developed in isolation from existing debates over the design of MOOCs, particularly concerning the structure of the MOOC and the relationships among the participants. These writing courses were intended to be similar to existing face-face writing courses, which were primarily intended for native English speakers.¹ The connection between the MOOC and the existing face-to-face courses was sometimes explicitly stated. Therefore, to understand this relationship between MOOC design and teaching writing, it is useful to examine the development of the MOOC platforms used in the writing courses. On their course page, for example, the Duke MOOC introduced the course in a way that would be appropriate for any university level undergraduate writing course:

You will gain a foundation for college-level writing valuable for nearly any field. Students will learn how to read carefully, write effective arguments, understand the writing process, engage with others' ideas, cite accurately, and craft powerful prose. We will create a workshop environment. (Duke University 2016)

These composition MOOCs, as explained by Coursera, were designed as a college-level composition course that could help 'a broader range of learners to potentially benefit from MOOCs' (cited in Coursera Blog, para 4). However, the differences, such as the number of participants and low completion rates, that were true across all MOOCs have made that goal difficult to attain. Unlike traditional writing courses, for example, where success is often measured by completion ratios or the quality of the finished papers, it was hoped that success could be measured by the improvement in critical thinking and the writing skills fostered by peer interactions (Moxley 2012).

The key difference, however, was in the composition of the participants. Although the three MOOCs in the focus of this paper (at Duke, Georgia Tech, and Ohio State universities) were designed for general US-based undergraduate courses, and therefore not initially designed for multilingual students for whom English was not their home language, the global nature of the MOOCs meant that the participants would be more heterogeneous in English-language background, writing ability, age, and motivation. As will be discussed, their designers could create various forms of multilingual learning spaces for developing literacy that were simultaneously unconstrained by the institutional goals of the face-to-face writing classroom and constrained by the nature of the MOOC. However, there were limitations as well, most importantly the quality of access the participants had, differences in terms of how students interacted with each other, and how they decided on how much of the course to complete.

This paper is a preliminary exploration of the impact and implications of the composition MOOCs for teaching writing in general, particularly for teaching multilingual students who have been a large population in these courses. The paper is divided into two parts. It first examines some of the core differences between the different MOOC environments. Second, it will discuss how the three university writing courses responded to the constraints of their environments, particularly the greater importance given to peer review (e.g. Chang 2016, Ferris and Hedcock 2005, and Liu and Hansen 2002) as an example of a major change in

¹ The first Coursera MOOCs were primarily drawn from existing courses at elite universities in the United States, primarily aimed at native English speakers. There did not seem to be any recognition that a large number of speakers would not be native speakers. In one of the earliest Coursera MOOCs, a course on the History of Technology from the University of Michigan, the professor expressed surprise at the numerous instances of plagiarized papers submitted, which he attributed mainly to the non-native speaking population. In subsequent courses, he reduced the writing requirements to accommodate them.

the pedagogy resulting from the design of the MOOC. The conclusion will discuss how studying MOOCs can help us better understand new directions for technologically-enhanced writing spaces for participants with various backgrounds in writing. This discussion is based in part on my own participation in composition MOOCs as well as in over thirty MOOCs since 2008. It is not the goal of this discussion, however, to evaluate which was the better design but rather to explore the potential of the different designs. While such discussions are inevitably preliminary, they are important both for understanding the potential of these new online globalized learning spaces for teaching writing and the challenges MOOCs pose for traditional pedagogies.

The Development of MOOCs

MOOCs have not developed in a technological vacuum but have emerged from a number of trends that have characterized the design of the Internet: for example, its intentional openness (Berners-Lee 1999) as expressed in the metaphor the 'bazaar and the cathedral' (Raymond 1999); the connections among participants as seen in expressions such as 'everything is connected' (Barabasi 2003); 'cognitive surplus' (Shirky 2010); 'the wisdom of crowds' (Surowiecki 2004); and 'the wealth of networks' (Benkler 2006). In their beginnings, MOOCs relied on cooperative problem solving, what Shirky called 'cognitive surplus', or what Surowiecki (2004) called 'the wisdom of the crowds,' where the cooperation among the groups offsets the limitations of each individual. As Benkler (2005) puts it, the more participants there are, the more connections can be made, and the more knowledge can be generated.

The openness of MOOCs primarily refers to how anyone with access to the Internet can take the course and be on equal footing with other participants. Openness has also meant that the participants can leave the course as easily as they enter without any formal process of withdrawal. This openness is possible because the MOOCs reflect the 'commons' that Raymond (1999) discussed where participants can easily enter wherever and whenever they wanted to without asking permission or being noticed by the other participants. Unlike in the traditional classroom where such entry is more highly restricted (like Raymond's 'cathedral'), this aspect of MOOCs has meant that large numbers of participants can easily 'drop out'.

Yet, the meaning of 'openness' has been itself disputed as commercial platforms, such as Coursera, search for ways to monetize their MOOCs. Similarly, the idea that 'openness' can also refer to open access materials that can be shared and repurposed (e.g. Downes 2012 and Wiley 2007), however, do not always apply. While the MOOCs have been open to all participants at little or no cost, their materials were often copyrighted so that they could not be reused or repurposed. Participants could sometimes access the materials after the course ended although they were still locked down. Another problematic dimension of openness is its meaning for those interested in researching MOOCs, as evidenced in this paper where much of the data was obtained from the writer's participation in the MOOCs. As with other forms of social media, such discussions cannot be easily contained.²

² Since Internet research first began, researchers have struggled with the ethical concerns. Organizations such as the Association of Internet Researchers have published guidelines for researchers to follow that acknowledge the differences between Internet research and traditional research (Markham and Buchanan 2012: 5). These guidelines are based on contextually-sensitive concepts such as 'harm, vulnerability, respect for persons, and beneficence' for contextually-sensitive guidelines that can be applied to MOOC-based research. They recognize that the public/private distinction on the Internet is more ambiguous than in other spaces, so that attitudes towards privacy are both contested and changing.

MOOCs described as courses may seem straightforward but their various designs can still constrain the nature of learning, raising the question of whether MOOCs are courses (Porter, 2014). Institutions where these new classrooms have been employed have sometimes had to reconsider what is meant by a course, who these courses addressed to, and what resources are necessary for developing these courses. Classes, for example that normally have a fixed start and end times, fixed schedules, and traditional types of evaluations, assessments, and teacher/student relationships have also been rethought. MOOCs have also not been bound by these institutional constraints. For example, they have generally varied from 3-4 weeks to over 14 weeks rather than the fixed number of weeks determined by the school calendar. The topics of the MOOC can also differ from the traditional course. Some MOOCs have centered on a theme, whether it be one related to the structure of the MOOC itself, related topics such as connectivism or rhizomatics (Cormier 2008b, Mackness and Bell 2016, and Mackness, Mak and Funes), or ones related to courses already given in an institution such as on artificial intelligence or film theory. In many cases, certain MOOCs seem more like extended discussion groups, as were the initial courses developed by Siemens (2004) and Downes (2011) on connectivism and personal learning networks.

It has generally been assumed that MOOCs can be divided into two different designs: xMOOCs and cMOOCs (Cormier 2008, Downes 2011, and Koller 2014). The organization of the cMOOCs and xMOOCs, in fact, differs on a wide variety of issues (see Appendix 1 for a summary of their differences). On the one hand, the first cMOOCs (Cormier 2008a) were designed to immerse participants in the discussion of connectivism (Siemens 2004), the theory that underlies the MOOC itself, by creating networks for the participants to interact in. Over time, various forms of digital spaces – e.g. blogs, discussion boards, Twitter, and Google Hangouts – have been connected into a learning space where the ‘content’ of these interactions could be found. On the other hand, xMOOCs were developed specifically for teaching of content, such as artificial intelligence, and then later on a large variety of topics found in traditional university catalogs. Unlike the cMOOCs, which rely on the networks of the participants for creating knowledge (e.g. Milligan, Littlejohn, and Margaryan 2013), this focus on content usually includes traditional lectures, although sometimes in shortened form, to provide the content.

cMOOCs have often been independently sponsored and have often been associated with alternate paradigms in learning theory (Downes 2011). xMOOCs, on the other hand, were more closely tied to the institutions who sponsored them and often more resembled the face-to-face classes upon which they were commonly based. These xMOOCs have been viewed as a way for the university to respond to questions of access and affordability. In addition, there have been differences in how cMOOCs have attempted to incorporate connectivist theories of learning in the networks created by the MOOCs (e.g. Siemens 2004) and how xMOOCs have incorporated theories similar to those found in lecture-based classrooms (Downes 2011). There have also been differences in the spaces in which the MOOCs were developed. After the first cMOOC, cMOOCs were primarily developed outside of traditional educational centers and their resemblance to traditional courses decreased. xMOOCs have been primarily created by providers such as Coursera, EdX, Audacity, Udemy, Canvas, and Future Learn, all of whom worked with traditional educational institutions and had some plan for monetizing their courses. They are often versions of the same courses already offered at the institution. cMOOCs have generated both enthusiasm and hype for their potential in disrupting all areas of education (e.g. Koller 2014).

One of the biggest factors that impacted the composition MOOCs was how interactions between the MOOC ‘leaders’ and the participants were designed. Most xMOOCs incorporated lectures but organized them in different ways. Some of the MOOC lectures were

taken directly from courses and then edited into shorter, more manageable segments. Other xMOOCs contained short lectures recorded specifically for the MOOC, which could be recorded by one instructor or a group of instructors. cMOOCs, on the other hand, limited the role of these lectures and eventually eliminated them in an attempt to decentralize the role of the instructor by focusing primarily on the participant discussions. The first cMOOCs eliminated the discussion boards because of the chaos and replaced them with individual participant blogs and Twitter feeds, which were then aggregated into a daily newsletter (Downes 2011). xMOOCs often, though not always, included the discussion groups, sometimes incorporating other forms of social media.

The discussion boards reflect one approach to encouraging student engagement. Principally in the xMOOCs, there was little interaction between the participants and the instructors, who often employed assistants to answer questions or even police the boards for trolls and copyright violations. Different MOOCs have tried different solutions to encourage student engagement (Mackness, Mak and Williams 2010). In the EdX course from Harvard Law School on intellectual property law, for example, the discussion with the professor and his guests occurred in a classroom with a small group of law students registered for the course. The online component met synchronously sometimes once a week with a teaching assistant and used a proprietary technology to collectively annotate the course readings. However, these discussion boards can often be chaotic because of the large number of participants and threads. Samuel (2014) borrows the metaphor 'bowling alone (Putnam 2001)' to describe the isolation that participants in xMOOCs can feel. Sometimes in xMOOCs, the isolation can be overcome through the ability of the participants to organize their own groups, both inside and outside the MOOC, using whatever form of social media they feel comfortable with. Some of the composition MOOCs, for example, use Google Hangouts, to create some degree of interaction with the instructors.

The creation of content is another difference between the types of MOOCs. In cMOOCs, there often has been no fixed content to be taught, but knowledge is generated from the network of participants. xMOOCs tend to have a top-down structure where the content of the course primarily comes from the instructor as in a traditional lecture class, and while the participants can also contribute to that body of knowledge, it is not the primary goal. Despite their differences, all the MOOCs have had their own challenges that had to be addressed from varying perspectives. For example, they have struggled with low completion rates which had affected how they were viewed as alternatives to traditional composition courses (e.g. Littlejohn 2014).

The Organization of the Composition MOOCs

By the time the first composition MOOCs were developed in 2013, MOOC design had begun to appropriate the features of the two different approaches in the cMOOC and the xMOOC (see Appendix 1 for a comparison). Particularly for the composition MOOCs, the most important consequence of openness was that MOOCs were much more heterogeneous than the corresponding traditional classroom in terms of the language proficiency of the participants, their linguistic and cultural backgrounds, and their ages. This openness was part of the appeal of creating MOOCs for teaching writing to participants outside the traditional institutional boundaries. However, it would become apparent that accessibility, which would be impacted by both technical and political constraints, can refer not only to being able to access the Internet but also the quality of the access.

These constraints can affect what the participants could accomplish as well as the type of assignments given (Head 2013). So, since the proposed courses were originally designed for

a more homogenous North American undergraduate group of participants with similar web access but attracted participants from various additional backgrounds and geographical areas, both the teachers and students have had to continually renegotiate the original goals, both within the constraints of the platform and in response to the goals of the participants.

The respective syllabi for the courses were organized around various topics that were usually addressed in some form of lecture or Google Hangout with the instructors. Such lectures were typical of the xMOOC format favored by platforms such as Coursera where the centrality of the instructor or even group of instructors was primary. There were differences in how the lectures were delivered. The Duke courses focused primarily on one lecturer, Ohio State on a group of lectures, and Georgia Tech on group discussion among the lecturers. There were also differences in the topics of the lectures (see Appendix 2 for a list of the first lecture topics in each MOOC).

Lectures have been seen as important in delivering a predefined content, and each composition MOOC included some content-based lectures. The lectures in the Duke course focused on various aspects of what it means to be a writer, with the instructor discussing her own writing and frequently stopping the lecture to give the viewer a chance to practice their writing. The Ohio State lectures focused more on concepts related to the writing process while the Georgia Tech course organized its initial lectures on rhetorical concepts, such as ethos. The lectures were mostly pre-recorded as is the case in many of the xMOOCs; however, there were instances of interactions between the instructor and the participants in the Duke course and the group discussions in the Georgia Tech courses that utilized Google Hangouts for synchronous interactions, as did the Duke course, which were recorded for later viewing.

Each course introduced a variety of different writing assignments, which would be evaluated and assessed through peer review (see Appendix 3 for a list of assignments). Each assignment was incorporated into the weekly rhetorical topics. In-class class discussions were replaced by the same discussion boards usually found in xMOOCs, although students sometimes created their own spaces, such as a Facebook group, that more resembled the cMOOC approach (Zheng et al. 2016). The large Facebook groups sometimes broke into smaller groups (e.g. Woodward 2014). The impact of the MOOC design could be seen in changes to the writing assignments. The types of assignments, particularly the digital and multimodal ones, sometimes had to be tweaked to accommodate limitations in access and even different attitudes towards plagiarism (Halasek et al. 2014). Instructors were often faced with the situation of having low percentages of participants complete all the assignments. As in all the MOOCs with writing assignments, peer review had to be given a more prominent role, often substituting teacher feedback.

As Halasek et al. (2014) found, the presence of so many multilingual participants necessitated changes in the design of the MOOC. The three courses reviewed here also introduced some minor modifications because of the presence of large numbers of multilingual participants. The Duke course brought in an ESL consultant to discuss the role of grammar and included a short video. The Ohio State course added discussions of 'World Englishes', which were also used to instruct participants on peer reviewing. There were a number of cases where the technological constraints of the quality of local Internet access would impact the pedagogy. For example, Head (2014), who taught in the Georgia Tech MOOC, found that the accessibility impacted the ability to give multimodal assignments that relied on the availability of bandwidth. This condition varied much more in the course participants' contexts than at a university like Georgia Tech.

The role of discussion boards for fostering interaction had become controversial by the time the composition MOOCs came online. Because of the large number of potential participants, they had become chaotic to follow. In the cMOOCs, students often create their own sites for posting their ideas, which could then be aggregated for everyone to read (Downes 2011). This approach was added by some composition MOOCs participants themselves. Participants, for example, created a Facebook site in the Duke MOOC to supplement the discussion boards. The site was an interesting example of how the participants could remediate problems with the existing technology by adding a different technology (e.g. Zheng et al. 2016). At the beginning of the course, the participants set up a Facebook group to create their own space outside the Coursera platform for increasing interactions: sharing questions, concerns, and successes and failures. Such participant activity illustrates how the implementation of a larger technology, such as a MOOC, can be aided by the implementation of technologies to deal with more specific problems, in this case the 'bowling alone' problem of isolation from other participants (Samuels 2014). The use of all these technologies to supplement the Coursera platform served to provide participants with more autonomy in their learning, particularly in terms of facilitating the discussions and peer review and at the same time providing more support to counter the low retention rate.

The Writing Assignments and Peer Review

No factor impacted the composition MOOCs more than the reliance on peer reviews for assessment, although its accountability was limited (e.g. Comer and White 2016). Peer review is an important factor because its widespread usage reflected one of the key adaptations MOOC designers had to make as well as one of the important areas where participants could attempt to control their own learning (e.g. Downes 2012). Because of the large number of participants, traditional teacher feedback was impossible.

In the composition MOOCs peer review was often the only form of feedback. The large number of peer reviews reported by Head (2014) illustrates how they can play a central role in the pedagogy of the composition MOOCs. From the earliest MOOCs, peer review was often accomplished using crowdsourcing (e.g. Downes 2011 and Prpić et al. 2015), where the participants were required to peer review if they wanted to receive peer reviews on their own writing (e.g. Suen 2014). Since there were no alternative sources of feedback, the courses had to spend more time and resources training participants to be peer reviewers. The Duke course used the weekly Google Hangout session to model the peer review process with the participants. Ohio State created the WeX program to facilitate learning to peer review.

Participants could receive peer reviews from participants with a variety of backgrounds and in some cases, receive as many reviews as they felt they needed. The use of peer review in multilingual writing classrooms has long been contested (e.g. Chang 2016). Chang reviewed two decades of research that found mixed results on their overall success. One issue Chang found was the degree of acceptance of peer review by multilingual students, who often preferred peer review as a complement to teacher feedback. However, the interactions between the native English speakers (NES) and the non-native English speakers (NNES) also illustrated how NES came to better understand the struggles that many of the NNES may have had with the peer review process.

The Facebook example illustrates the tension between the goals the designers had for peer review and the goals of the participants. Students were sometimes frustrated or dissatisfied with the quality or amount of peer review. This tension was impacted both positively and negatively by the greater heterogeneity of the participants than found in the traditional

classroom. However, many of the controversies found in traditional peer review research (e.g. Chang 2016) appeared in the MOOCs as well.

As the following samples indicate, the participants had a variety of opinions on the value of peer review that illustrate this tension. In the Ohio State MOOC, for example, one native English-speaker expressed her appreciation of these struggles:

In my experience, the MOOC peer review process is more of a forum for peer exchange and introspection on our own individual learning. Many of us are used to having our work graded by experts, as a result we are struggling to shift our expectations. In the online MOOC environment, it just isn't structured that way. I applaud those peers who are ESL and press on with the assignments. We are all learning together.

Such an intercultural understanding can be seen as another benefit of the heterogeneity of the MOOC course participants. Moreover, the peer review process can be seen in the same social context as the other ways the participants connected with each other.

The participants often had greater autonomy to respond to the problems they saw with peer review. In some cases, receiving multiple peer reviews from different reviewers was a required part of the curriculum; however, participants could also ask for even more reviews if they felt they needed more feedback. One participant who had signed up for both the Ohio State course and the Duke course posted her essay from one course on Facebook and asked for additional peer reviews from the participants to receive more feedback, often on linguistic problems. In the Duke and Ohio State MOOCs, peer reviewers had been cautioned about focusing too much on grammar and spelling, issues that are often more of a concern in L2 writing courses. However, those instructions did not keep the reviewers from correcting seemingly minor points, as is shown in the following example:

Overall, you did good with including evidence and the arguments on Coyle [one of the assignments]; however, you seem to forget to put quotations, theres some grammar and spelling mistakes! For project 2 I reckon, you should have quotations' 'from the text and also watch out for spelling error! Other than that you did great!! Good luck on your project 2!!! Include your citations!

Often the responses of the participants to peer review reflected the debate over the value of teacher feedback in traditional multilingual writing courses (e.g. Ferris and Hedgcock 2005). Since the instructors did not provide any feedback, the other participants had to collectively play that role. Because these MOOCs were originally designed for native English speakers, there was less concern for the grammar feedback than some students expected. Both the Duke and Ohio State MOOCs were explicit at the beginning of the course that peer review should not focus on such 'mistakes'. Commenting on grammatical correctness was largely frowned upon by the instructors although sometimes desired by the students. Ohio State's 'World English' lectures seemed designed to explain why peer review would not focus on 'mistakes'.

However, some participants still wanted the reviewers to help them correct their grammatical problems. Here is a participant pleading on Facebook after receiving her reviewed paper that she wanted more feedback about her grammatical problems: 'I'd like to know where are the mistakes'. The participant did not explicitly refer to 'grammatical' mistakes, but those were the type that participants had been asked to ignore. The participants often used Facebook to ask for additional help from other participants to substitute for the teacher feedback. Since the

three courses overlapped to some extent, participants in more than one MOOC could use Facebook for additional feedback for papers written for another MOOC.

The participants' perceptions of the personal value of the peer reviews also varied greatly. Many participants questioned the value of peer review as is the case in face-to-face classrooms, but for one participant, receiving peer reviews gave him a great sense of accomplishment even though he admitted he did not put much effort into the paper:

I was blushing when I read this comment...
'I would keep this as one of reference texts while writing journals and conference papers in my doctoral study and technical career path.'

For many participants, peer reviews can be important for connecting with other participants to counter the feelings of isolation. Such connections can be critical in supporting student development; a role often primarily played by the instructor in a face-to-face course. In this posting, the participant expressed how the heterogeneity of the peer reviewers helped her gain confidence in her writing:

This course has been very valuable for me. And surprisingly enough, the peer-review exercises turn out to be at least as relevant for me as the writing itself. I am one of very few non-English-native speakers in our global team and until very recently I was hiding when it came to giving peer feedback to my teammates. Two days ago, one of my US-based colleagues asked the crowd who would be available to peer-review her blog-article and I immediately virtually raised my hand - without even thinking about my previous concerns any more.

Not all the participants were that positive. One participant expressed frustration even though the peer review score was high:

Project 4 grades? Again a 5 for me, but as always polarizing feedback - I chose gaming as my field of expertise so one reviewer simply didn't get it.

Participants sometimes expressed frustration with the background knowledge the reviewers brought to the assignment, as in the following post:

I spent 12 weeks of my life dedicated to this class. I never got more than a 4 from my peers and to top it off. I did my peer review and was told that I didn't. I tried to be fair and gave people a 5 and the benefit of the doubt. Only once did I give a 4 because the paper lack organization. I don't think people liked my views and I never got feedback on forms or fb, or google. I feel it was a waste of my time. I do have some very nice papers that I wrote. I'm sure with the right ordinance it would have come out much better.

The participants had been given a great deal of autonomy on the subject of their writing, which may have accounted for this frustration with the apparent lack of background knowledge of the reviewers. Here one participant expresses thanks for the peer review, illustrating how the social interactions could impact her motivations for remaining in the course:

I know many people are working hard and ending up with useless feedback but I was lucky to have received very helpful and encouraging feedback both on my draft as well as on my final submission. I too am working hard and I feel very motivated. Thank you very much! Now please identify yourselves :).

For those who received harsher reviews, the need to connect with the reviewer may not have been as desirous since here she expresses the frustration with the anonymity of the reviewer, a feature more prevalent in the MOOCs than in the traditional classroom.

Despite this variation in how peer review was received by participants, the participants' perception of their ability to respond to others' work showed some of the highest gains of any aspect of the Duke course (Comer and White 2016). The reliance on peer review as a means of assessment meant that the designers had to make both pedagogical and technological changes (Halasek et al. 2014). Peer reviewing is one of the key factors that illustrate, as Halasek et al. found, that pedagogies do not simply scale as thousands of participants are added to the class but have to be adapted for different pedagogical purposes, as illustrated by the development of WeX and the use of Google Hangouts for modeling the peer review process.

Conclusion and Implications for Classroom Teaching

This paper has discussed the implementation of three composition courses in the Coursera platform. MOOCs are evolving technologically-enhanced spaces for learning, so the analysis of the composition MOOCs presented here is a snapshot of their development during their first iteration. The composition MOOCs emerged at a time when different approaches to MOOC design had already emerged and could draw upon a variety of approaches to MOOC design to support their goals and be consistent with their pedagogies. As new pedagogies have developed and new technologies implemented, the composition MOOCs have evolved in later iterations while new MOOCs for teaching writing have come online.

The institutional value of MOOCs, which perhaps was the main motivation for funding them (e.g. Moxley 2012), has proven questionable. It has been as difficult to measure 'success' in evaluating composition MOOCs as it has been with other MOOCs. The composition MOOC instructors wrestled with the same problems, such as the retention rates, that the Coursera xMOOCs had struggled with since their beginning. The potential of MOOCs for reaching tens of thousands of learners has been tempered by the low number of participants who finish the course. For example, only around 5% of those who registered finished the Georgia Tech course (Head, 2014). Rather than having to sit through an entire course, the participants could choose which lectures, discussions, or assignments they were interested in and ignore the other. A study by the University of Pennsylvania on over one million participants who signed up for their seventeen MOOCs reported that overall only 4% completed the requirements (Perna et al., 2013). As Halasek et al. (2014:164), put it, one of the important lessons they learnt was the need to 'loosen the reins.'

Because there were few financial or academic consequences, this lack of student persistence has been seen, particularly in an institutional context, as a negative aspect of the MOOC (e.g. Evans, Dee and Thomas 2016, Law and Jeffs 2016, Littlejohn et al. 2013). Others have argued that this ability to choose when to participate, which aspects of the MOOC to become involved in, and how much of the course to accomplish has meant a much greater sense of autonomy than is possible in traditional courses (Anders 2015). As Downes (2012) has put it, the MOOC design should provide the participants greater autonomy to become immersed in the network to whatever degree and for however long they desired. Thus, even if a participant only completes a few assignments or remains in the course for a short period, they can still benefit and contribute. In her reflection on her own participation in the MOOC, Woodward (2014) concludes that although she did not put in the effort to complete the course, she found satisfaction in many of the interactions she encountered.

The large number of participants, on the other hand, can be seen as indicative of the large amount of learning that took place. Head (2014) argued that these numbers do not measure what was learnt since their completion rate only mattered for official credit but not for measuring the formal and informal learning that occurred throughout the course. Head reported that participants submitted 2,942 drafts and, perhaps most interestingly, provided 19,571 peer reviews. For the participants, the low completion rate was sometimes seen as a result of the lack of support from the other participants, but also because of their own lack of personal investment (Woodward 2014).

Much that has been learnt from these MOOCs can be used in designing future MOOCs, or, despite the differences between a face-to-face course and a MOOC, imported into the traditional classroom. The instructors often commented on how the pedagogies and assignments created for the MOOCs could transfer into their face-to-face classroom (e.g. Comer 2014, Halasek et al. 2014, and Woodward 2014). In a journal kept during the Duke course, Comer discusses how she later modified her face-to-face courses based on her experiences in the MOOC. Halasek et al. (2014), for example, discuss how their experiences challenged many of the narratives about themselves and their students with which they had begun the MOOC. Woodward, a composition teacher who was also a student in the MOOC, used some of its approaches to social media in her own class. Specific approaches to incorporating peer review can be rethought in light of questions related to participant heterogeneity. Although its use as an alternative approach to assessment was embraced by both the instructors and participants in these writing MOOCs, this enthusiasm has not always been shared in other MOOCs. MOOC providers have developed different technologies for automated assessment to replace human peer review (Balfour 2013), which has been highly controversial in the field of language learning (e.g. Crusan 2010) and writing (Perelman 2012) and their value has been limited. Some MOOCs have attempted to add elements of traditional courses. Recently, EdX offered for \$300 to replace peer reviews with advice from teaching assistants familiar with the course material (Straumshein 2016). There were other pedagogical issues, such as the role of explicit grammar teaching, that have gone largely unresolved.

Despite the various challenges, the development of these composition MOOCs has had important implications for the evolution of technologically-enhanced writing classrooms as alternatives to both face-to-face and other types of online courses as well as models for future MOOCs (e.g. Hewett 2015). Since these first writing courses were launched, new writing courses have been offered by a variety of institutions on different platforms, on a range of specific topics, including business writing, creative writing, and a variety of grammar courses. These MOOCs have created new and different opportunities for teaching writing; therefore, it is important to understand how their various designs can affect the teaching of writing as well as how their participants learn to write.

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Appendix 1: Comparison of cMOOCs and xMOOCs

	cMOOC	xMOOC
Learning theory	Bottom up learning, often referred as connectivism, where knowledge emerges from the massive number of participants.	Top down learning, where the primary source of knowledge usually comes from lectures.
Openness	Courses are open and that materials are available to be freely used and remixed to create new materials.	Means primarily that the courses are open.
Role of teacher	Decentralized role for teacher who usually plays the role of facilitator.	Centralized role for the instructor lectures.
Organizational Structure	Creation of highly decentralized networks of participants.	Centered around a growing number of elite universities and faculty.
Interaction among participants	Participants are encouraged to create their own groups or use other technologies – e.g. blogs, Twitter, Facebook – to interact. These postings may be curated and distributed to all the participants.	Although the decentralized interaction is encouraged, class discussion boards are the center of interaction.
Evaluation of participants	Little if any formal evaluation of the student.	No formal evaluation but peer review is often used to evaluate individual student work.
Learning goals	Primarily professional and personal development.	Professional and personal development, possibly receiving a badge or certificate.
Attitude towards higher educational institutions	Critical of all aspects of institutional learning – relevance, cost, focus of learning.	Strong belief in the value of the university; therefore, the goal is accessibility and cost-effectiveness.
Open Education Resources (OER)	Strong commitment to producing materials that can be easily accessed across platforms.	Materials are often proprietary, are available only to participants, and may be subject to copyright restrictions.

Appendix 2: The Introductory Lectures in the Three Composition MOOCs

Duke	Ohio State University	Georgia Tech
Intro Writing Process and Reading Critically	Thinking Rhetorically: Introducing Ourselves, Introducing Rhetoric	Ethos
I am a Writer	Responding Rhetorically: The Writers Exchange (WeX) and Peer Review	Pathos
What is Academic Writing	Arguing Rhetorically: Analyzing as a Means of Framing Argument	Logos
Understanding Your Writing Process	Seeing Rhetorically: Analyzing and Composing (with) Images	Hangout
Responding to Others Writing	Researching Rhetorically: Composing with Sources in Evidence-based Texts	
Active Reading	Reflecting Rhetorically: Reflecting on, Reviewing, and Publishing Your Work	
Spotlight on the Humanities: Academic Writing		

Appendix 3: The Writing Assignments for the Three Composition MOOCs

Duke	Ohio State	Georgia Tech
Critical Review	Thinking Rhetorically: Introducing Ourselves, Introducing Rhetoric	Self- Assessment Surveys & Personal Benchmark Statement
Explicating a Visual Image	Responding Rhetorically: The Writers Exchange (weX) and Peer Review	Personal Philosophy Essay
Case Study	Arguing Rhetorically: Analyzing as a Means of Framing Argument	Personal Philosophy Visual
Writing an Op-Ed	Seeing Rhetorically: Analyzing and Composing (with) Images	Personal Philosophy Recorded Presentation
	Researching Rhetorically: Composing with Sources in Evidence-based Texts	Re-visit the Self-Assessment Surveys and Personal Benchmark Statement
	Reflecting Rhetorically: Reflecting on, Reviewing, and Publishing Your Work	