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The American University in Cairo  
School of Humanities and Social Sciences

**Instructor Perceptions of Effective Teaching in LMOOCs and  
Strategies Utilized to Enhance Learner Engagement**

A Thesis Submitted to  
The Department of Applied Linguistics

In Partial Fulfillment of the Requirements for  
the Degree of Master of Arts in Teaching English to Speakers of Other Languages

Under the Supervision of

**Dr. Atta Gebril**

By

**Sara Matlack**

May 2020



THE AMERICAN UNIVERSITY IN CAIRO

الجامعة الأمريكية بالقاهرة

Graduate Studies

Semester: Spring 2020

Date: May 14, 2020

## ▶ Thesis Signature Form

Student Name: Sara Matlack

Student ID: 800180082

Student AUC email address: smatlack@aucegypt.edu

The American University in Cairo  
School of Humanities and Social Sciences

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In partial fulfillment of the requirements for  
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Languages  
has been approved

Dr. Atta Gebril

Thesis Supervisor

Affiliation: The American University in Cairo

Date: May 19, 2020

Dr. Maha Bali

Thesis First Reader

Affiliation: The American University in Cairo

Date: May 19, 2020

Dr. Yasmine Salah El-Din

Thesis First Reader

Affiliation: The American University in Cairo

Date: May 19, 2020

Dr. Reem Basslouney

Chair, Department of Applied Linguistics

Date: May 19, 2020



THE AMERICAN UNIVERSITY IN CAIRO

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Dr. Zeinab Taha  

Dean, School of Humanities and Social Sciences

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## Abstract

The present study aims to investigate key strategies LMOOC instructors use to enhance learner engagement, their perceptions of effective LMOOC teaching, and the major challenges they face. A sequential mixed methods approach using quantitative and qualitative methods was used. A sample of ten LMOOC instructors participated in the online questionnaire and four interviews were conducted. Content analysis on four top rated LMOOCs was conducted to further validate engagement strategies used. Quantitative results were analyzed using descriptive statistics. Qualitative data was divided into themes. The results concluded that the top three engagement strategy themes were interaction, participation, and content. Overall, LMOOC instructors perceived their role as an instructor, previous training and teaching experiences, pedagogies and content important to the effectiveness of their LMOOC. Instructors perceived LMOOCs to be effective in language learning, yet perhaps not as effective as a traditional language classroom. The most common challenges that were supported by both the online questionnaires and the instructor interviews were: pedagogical and platform limitations, variation of learners' background and proficiency level, dropout rate, and engagement of learners. This research paper has ultimately contributed to the lack of studies on LMOOCs, coverage of instructors' perceptions literature, and potential future influences of LMOOCs into the current online education situation and help better prepare instructors and educational policy makers of future course offerings.

**Keywords:** LMOOC, instructors' perceptions, engagement strategies, effective teaching, teaching challenges, MOOC pedagogies, language learning, content analysis

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## CHAPTER 1 INTRODUCTION

### 1 Background

Over the past two decades there has been an increase in usage of online courses and instructional technology (Paterson, 2014). These online courses are constructed and carried out in response to the continuous advancement of the internet (Paterson, 2014). Alongside this online growth there have been many different areas in education that have benefited from new technologies. Some of the first areas to be recognized as legitimate uses of technology in education have included computer-assisted, hybrid and blended courses, web-based courses, distance learning and mobile-assisted learning (Pareja-Lora, Rodríguez-Arancón, & Calle-Martínez, 2016). In 2008, there was further advancement in this field: Massive Open Online Courses or MOOCs (Perifanou & Economides, 2014). MOOCs are considered as “the natural evolution of OERs (Open Education Resources), which are freely accessible learning materials and media to be used for learning/teaching” (Bárcena & Martín-Monje, 2014, p.1).

MOOCs were coined by Dave Cormier and attract thousands of learners from around the globe to study online, typically at no or low cost (Perifanou & Economides, 2014). It is partially due to these reasons that higher educational institutes view MOOCs as opportunities to reach the global populace (Kruse & Han Pongratz, 2017). Thus in 2012, many universities adapted and partnered with other platforms to create their own unique MOOCs (Perifanou, 2017). These partnerships saw MOOCs as “a powerful tool to make fundamental changes in the organisation and delivery of” higher education courses in the future (Yuan & Powell, 2013, p. 9). Examples of partnerships include Coursera and Stanford University, and edX with MIT and Harvard University (Baggaley, 2013). Some universities even began offering MOOCs for formal credit in 2012 and 2013, with many offering certifications for small fees (Kursun, 2016). The graph below shows the progression of Open Educational Resources or OERs which led to the creation of the

cMOOC in 2008. This was followed by Stanford's xMOOC along with several of the major MOOC providers such as Udacity, Coursera, and edX. Other online platforms, such as Open University, started out as OERs and then adopted and added the concept of MOOCs later.

Figure 1. MOOC Timeline

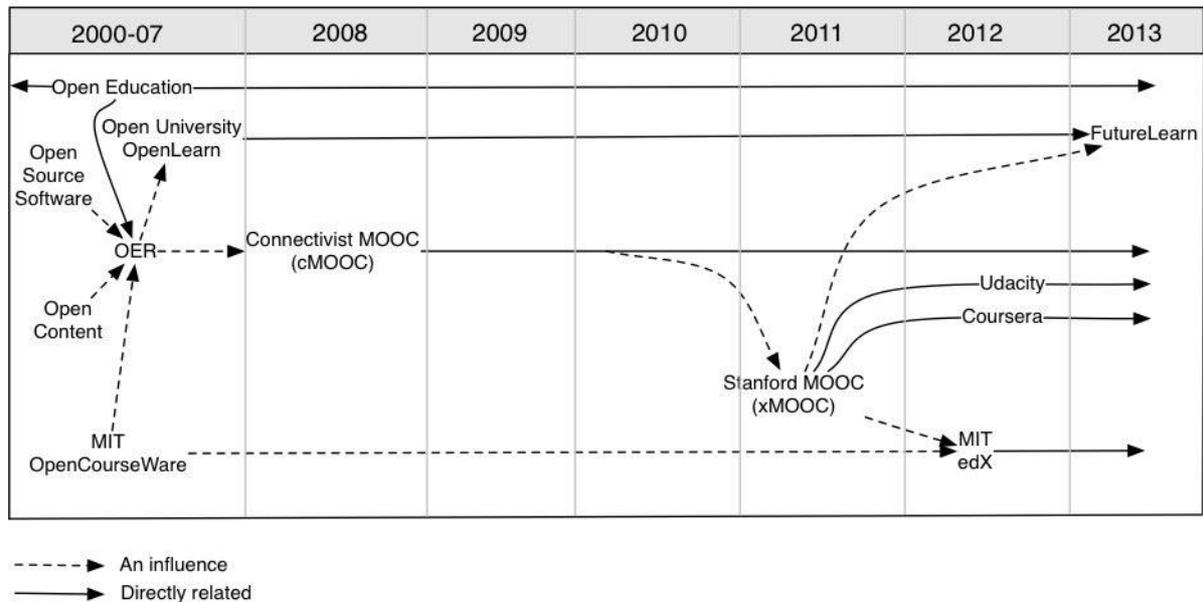


Figure 1. MOOCs and Open Education Timeline. Adapted [reprinted] from “MOOCs and Open Education: Implications for Higher Education,” by L. Yuan and S. Powell, 2013, p.6.

Aside from the integration of MOOCs into higher education there have been hundreds of MOOCs created by countries. These “country-specific MOOCs” have “generated an enormous amount of newly created MOOCs for the specific populations and needs there” (Zhang, Bonk, Reeves & Reynolds, 2019, p. 7). With the integration of MOOCs into higher education as well as entire countries subject courses that exist, and are being created, online have diversified, and multiplied. A 2015 article stated that there were over 35 million MOOC learners that year, which means that the amount doubled from 2014 (Shah, 2015). The article also states that there were 4,200 courses run by 550 universities in 2015 (Shah, 2015). With such a massive surge in MOOC courses and enrollment, the need for research into this area is all the more relevant. With this boost of twenty-first century learning tools, it has also become common to utilize them within the language learning classroom (Pareja-Lora, Rodríguez-Arancón, & Calle-Martínez,

2016). One such subject that has developed as a result of this expansion is language learning in the form of language MOOCs. Language MOOCs have a variety of acronyms to include MOOLC, MOILLE, LangMOOC and LMOOC. For the remainder of this paper I will be using the term Language Massive Open Online Courses or simply LMOOCs.

People want to learn languages for a variety of reasons. Some cite their desire for professional development, to fulfill academic commitments, or simply for personal enjoyment and enrichment (Beirne, Mhichil & Cleirin, 2017). It is because of these diverse reasons that the number of LMOOCs continue to increase. The literature on LMOOCs dates back to 2012 when MOOC platforms first began offering them (Sokolik, 2014). The growth of LMOOCs has risen from 26 in 2014 to 143 in 2017 (Beirne, Mhichil & O Cleirin, 2017). The top three most popular languages at that time included English, Chinese and Spanish (Beirne, Mhichil & O Cleirin, 2017). In 2015 of 67 MOOC platforms 37 of them offered LMOOCs (Perifanou, 2015). Through the MOOC platform the LMOOCs have proven to be a unique experience all on their own.

As Motzo and Proudfoot state: “LMOOCs are an emerging category. Bàrcena Read, Martín-Monje, and Castrillo (2014) is arguably the first major contribution to an analysis of theoretical as well as methodological issues related to LMOOCs” (2017, p. 88). Bàrcena, Martín-Monje, and Castrillo were also the first to point out the learning a language within the MOOC context was very different from learning other subjects (2014). Since 2014, there has been a limited number of studies published on the subject.

### **1.1 Learner Engagement**

As the number of online courses increases so too must research studies into learner engagement as they are tied heavily to challenges that exist (Redmond, Heffeman, Abawi, Brown & Henderson, 2018). In an attempt to engage online learners, traditional classroom strategies are put to use. These strategies may include “a syllabus, along with a course content that typically consisted of readings, discussions via online forums, assignments which usually

consisted of quizzes, essays, or projects, and videos of lectures that are pre-recorded by the instructors prior to the lessons" as well as "online simulations, and game-related elements" (McGill, Klobas & Ranzi, 2014 as cited in Chen, 2017). On the other hand, cMOOC pedagogies use connectivism and networking where learners dictate the course content and learner autonomy is key (Chen, 2017). In cMOOC, unlike xMOOC, the "instructor of cMOOCs resembled more a discussion moderator than that of a tutor as played by instructors of xMOOCs" (Munoz-Merino, Ruiperez-Valiente, Alario-Hoyos, Perez-Sanagustin & Kloos, 2015 as cited in Chen, 2017, p. 9). This distinction plays into both instructor perceptions and how this impacts the choice in strategies as tools of instruction. Whether instructors choose to follow the strategies laid out by the more learner centered cMOOC pedagogy, the more traditional xMOOC pedagogy, or a mixture of both helps facilitate the evolution of language learning in a massive online environment.

## **1.2 Instructors' Perceptions**

Language instructors in general are required to view their learners with the thought in mind that learning a language requires not only the transmission of knowledge and content but also putting that knowledge into practice (Jitpausarnwattana, Reinders & Darasawang, 2019). How instructors feel about online teaching has a major effect on how they teach in an online format (Kebritchi, Lipschuetz & Santiago, 2017). According to McDonald, perception "incorporates memories and experiences in the process of understanding" (2011, p. 15). It also involves the processing of given information (McDonald, 2011). Instructors' experiences, understanding, and their knowledge of language teaching and technology are therefore crucial in LMOOC teaching. Research on the perceptions of these instructors only begins to shed light on the newness of MOOC, and therefore, LMOOC instruction. Instructors' perceptions of effective language teaching should be consistently researched in order to continually help instructors improve their teaching (Brown, 2009).

### **1.3 Effective Teaching**

Instructors are one of the main components for any classroom environment and how they view “effective teaching is one of the key propellers for school improvement” (Ko & Sammons, 2013, p.1). With the increase of LMOOCs and the evolution of its online teaching pedagogies, mainly xMOOC and cMOOC, and how instructors perceive effective teaching of LMOOCs remains important. However, the concept of effective teaching varies as do the perceptions of it. As Ko and Sammons state: “Effective teaching requires criteria for effectiveness. These criteria refer to the objectives of education in general and of teaching in particular” (2013, p. 5). Some of the defining criteria of what makes an effective teacher in the traditional sense such as being knowledgeable about students, communicating with all students, and “accepting responsibility for student outcomes” (Ko & Sammons, 2013, p. 2) is no longer possible or is incredibly difficult in the massive LMOOCs. Therefore, other areas and frameworks must be explored in order to determine instructors’ perspectives of effective teaching. As previously stated, an instructor’s experiences, their understanding, and knowledge of language teaching and technology are fundamental in teaching an LMOOC. One framework that highlights an instructor's understanding of technology in education and its overlap and interaction with “content and knowledge of the subject matter to achieve effective learning outcomes” is TPACK (Koehler & Mishra, 2008 as cited in Kassem, 2018, p. 6). The TPACK framework considers an instructor’s knowledge of technology, pedagogy, and content, and how they interact with one another in different ways to produce effective outcomes (Kassam, 2018). Concepts linking instructors’ perceptions and teaching effectiveness are previous teaching experience, the role it plays, training, and an instructors’ understanding of LMOOCs.

### **1.4 Challenges**

While an instructor’s perception of his or her role in an LMOOC helps to explain their perspective of effective teaching it is also simultaneously a challenge. Learning online “requires

adjustments to the teaching and learning practices traditionally associated with...learning environments” (Redmond, Heffeman, Abawi, Brown & Henderson, 2018, p. 184). There are major differences between online learning and traditional learning environments regarding course design and pedagogies (Redmond, Heffeman, Abawi, Brown & Henderson, 2018). Taking this a step further language instructors in certain contexts such as online learning may be faced with the extra challenge of having a group of language learners that are “extremely heterogeneous in terms of proficiency levels, prior experience in learning languages (online), interest and learning styles” (Jitpausarnwattana, Reinders & Darasawang, 2019, p.24). In language teaching aside from “the linguistic content, which used to be the most important aspect of language teaching, other factors now play a significant role. Actual pedagogical development shows that teaching and learning of foreign languages should have broader goals.” (Horváthová, 2014, p. 60). Therefore, in order to overcome these challenges, both types of MOOC pedagogies and the strategies they employ must be decided upon as they differ in the “types of instructions and learning activities” (Jitpausarnwattana, Reinders & Darasawang, 2019, p. 23). Also, according to the TPACK framework, consideration of an instructor’s knowledge of technology, pedagogy, and content are extremely important. Technology is heavily involved as LMOOCs are online, and language teaching pedagogy and content are unique. Online language instructors must not only deal with technology, but must focus on community building, encouraging language use through socialization, and teaching style (Hampel & Stickler, 2005). As there are many new challenges for online teaching in general it has become incredibly important “to inform educators about considerations and changes necessary for improving the quality of online courses” (Kebritchi, Lipschuetz & Santiago, 2017, p. 5).

### **1.5 Purpose of Study**

This research proposes to investigate the perceptions of online language instructors of LMOOCs. The purpose of this study is to gain an insider’s perspective into how instructors

effectively teach an LMOOC. As previously stated, there is a difference between teaching in a traditional classroom versus teaching online. There is also a noteworthy difference between teaching an online course and teaching in a general MOOC. The focus of this research will be how LMOOC instructors ensure that there is engaging content for a diverse group of learners. It also discussed challenges LMOOC instructors have faced while doing so. Using interviews, instructors were asked to comment on and make content and pedagogical suggestions and recommendations. This may greatly benefit other LMOOC instructors in the future by adding to their list of potential resources when they face similar challenges. The results from this research will not only directly add to the limited literature on LMOOCs, but also fill in a much-needed research gap.

### **1.6 Research gap, problem, and study rationale**

More specifically this research focuses on instructors' perceptions of the major challenges they face while teaching an LMOOC and studies the strategies used to help engage learners in the content and subject. As previously mentioned LMOOCs are increasing in numbers and so research into this area, pertaining specifically to overcoming major challenges and finding solutions, must be done. Studies have called for more research on the complexities regarding teaching MOOCs, and therefore LMOOCs, as it is a very different environment than traditional classrooms (Ross, Sinclair, Knox, and Macleod, 2014).

The importance of this study is linked to the gap related to the scarcity of LMOOC research. According to one study done in 2014 there was a total of "five scholarly articles in refereed journals (one in 2012 and four in 2013)" on the subject of LMOOCs (Bárcena & Martín-Monje, 2014, p. 6). There is an overwhelming disparity between the number of scholarly articles that come up when searching for "MOOCs" and that of "LMOOCs" as recent as May of 2020. Searching for "MOOC" resulted in 137,000 results with no other filters used. Similarly typing in "LMOOC", "MOOLC", and "LangMOOC" in Google Scholar resulted in

196, 100 and 14, respectively. “Language MOOC” resulted in 360 results with some of the results being unrelated to LMOOCs themselves. Some of the results discussed the main language used in the MOOC and not the subject of the MOOC being learning a language and so will be discarded from the article results. While results for MOOC articles is well into the thousands, the results for LMOOCs is significantly less. Even then approximately 80 percent of research topics on perspectives of general MOOCs are from the learners’ perceptions and their “behaviours, performance, learner participation and interaction” (Wong, 2016, p.106). Furthermore, one review of MOOC literature between 2014 and 2016 states that the percentage of existing research from the instructors’ perspective is only 7.5 percent (Deng & Benckendorff, 2017). In another review on research trends for LMOOCs from 2012 to 2018, 22.53% of papers “approach LMOOCs from the point of view of the providers (instructors/course creators or the different MOOC platforms and their functionalities)” (Sallam, Martín-Monje & Li, 2020, p. 17). Why is this when MOOC instructors are responsible for creating and uploading their course content (Hoy, 2014)? While learner feedback is important and aids in assisting “instructors in making the necessary adjustments as they teach online courses to assure the best experience” it is only a catalyst to the changes made by the instructor (Kebritchi, Lipschuetz & Santiago, 2017, p. 20). For LMOOCs there is a potential for an unlimited number of students enrolled in the course at any given time. Even if this is the case there is still a limited number of instructors who guide and create modules or lesson content.

This study will fill a much-needed research gap for LMOOCs as well as expand on it by discussing the instructor’s perception of effectively teaching LMOOCs and the subsequent challenges and adaptive strategies that must accompany them. In addition to the gap in the literature there are also concerns that some outdated studies exist on MOOCs. Studies done prior to certain time periods, even within the last decade, fail to mention tools usually employed in this context such as social media, which is now commonly used to enhance learner networks in the

connectivist MOOCs or cMOOCs pedagogy (Gruzd, Haythornwaite & Paulin, 2016). As the online environment is ever changing and evolving so too must online teaching strategies.

### **1.7 Delimitations**

An area that has been well covered is that of MOOCs and LMOOC platforms from the perspective of the learner. This study will not focus on that; instead, it will focus on the instructors' perceptions. In doing so, methodological limitations for this study may be the small sample size. There are a finite group of current LMOOC instructors some of whom may not respond to the survey. If they do respond to the survey, they may not be willing to participate in the interview. This limitation becomes more prevalent when language is accounted for.

Language limitations may exist as not all the LMOOC instructors will be teaching English LMOOCs. This allows for the possibility that this researcher will be sending an English survey to an instructor that may not understand English. Prior research on LMOOCs is small with that number diminishing even more so regarding instructor perceptions. This led to a reliance on relevant literature to be taken from the general areas of MOOCs and online learning. As a difference in subject matter and approach exists it may result in weakened validity.

### **1.8 Research Questions**

While research has investigated MOOC platforms, there remain limitations and gaps in the research of LMOOCs and the unique set of challenges they face. The research questions to expand on those limitations and fill in the gaps are:

- 1) What key strategies do language instructors use to enhance student engagement within an LMOOC environment?
- 2) What are LMOOC instructors' perceptions of online teaching effectiveness?
- 3) What challenges do language instructors encounter when teaching LMOOCs?

These research questions must be studied as there are many options of pedagogical approaches to teaching LMOOCs with varying types of content and with no clear direction as to which ones

boost learner engagement the most (Cassidy, Breakwell & Bailey, 2014; Perifanou, 2017; Baggaley, 2013).

## **1.9 Definitions and abbreviations**

### **1.9.1 Definitions of terms and constructs**

**MOOCs** stands for Massive Open Online Courses and are “open-access online course (i.e., without specific participation restrictions) that allows for unlimited (massive) participation” (Kaplan & Haenlein, 2016, p. 443).

**LMOOCs** are Language MOOCs and are defined as “web-based online courses for second languages with unrestricted access and potentially unlimited participation” (Bárcena & Martín-Monje, 2014, p. 1).

**cMOOC** is one main type of MOOC pedagogy. It stands for connectivist MOOC and the pedagogy focuses on networking, making connections (Kruse & Hans Pongratz, 2017) and using interaction media like social networks. They are “based on the idea that learning happens within a network, where learners use digital platforms such as blogs, wikis, social media platforms to make connections with content, learning communities and other learners to create and construct knowledge” (Siemens, 2012 as cited in Morrison, 2013, para. 4).

**xMOOC** is a second main type of MOOC pedagogy which is described as traditional classroom content online. It incorporates lectures, “videos, discussion forums, quizzes and surveys, and a structured navigation through the course elements” (Kruse & Han Pongratz, 2017, p. 356).

**Learner or student engagement** will be defined as “how active a student was over the entire course” (Crues, Bosch, Perry, Angrave, Shaik & Bhat, 2018, p. 1). Learner engagement in an online environment is “defined as students’ active participation in e-learning activities (i.e. discussion threads, virtual classroom) to achieve learning goals” (Gedera, Williams & Wright, 2015, p. 14).

**Challenges** refers to issues that LMOOC teachers face that make teaching more difficult or result in an ineffective or unsuccessful LMOOC. For example, student retention, lack of technological awareness, learners' proficiency levels and cultural differences.

**Strategies** describes any "plan for achieving success in situations" (Cambridge, 2019a). In relation to this study strategies refers to what a teacher uses such as content type or pedagogical approaches and methods to enhance learner engagement.

**Perception** is defined as a person's thoughts, beliefs, or opinions about something (Cambridge, 2019b). For this study perceptions will be defined as how instructors view LMOOC effectiveness and what they perceive makes effective LMOOC teaching.

**Effective teaching** is difficult to define as it varies for different subjects and measurement of it is a challenge (Ko & Sammons, 2013). For the purposes of this paper it will be defined as an instructor's perception of the successful accomplishment of their learning goals and educational outcomes.

### **1.10 Operational definitions of terms and constructs**

For this research study the constructs of learner engagement strategies will be determined based on the results of an online questionnaire. A wide variety of pedagogical strategies and content will be listed in the questionnaire to allow participants to state whether they use that strategy or not and how often they use it to enhance learner engagement specifically. Participants will be asked to choose how often they employ these engagement strategies on a frequency Likert scale. A course content analysis of four high rated LMOOC courses will also be performed to further analyze engagement strategies. These LMOOC courses will be taken from the class central website, which is a leading database for MOOCs. Challenges will be measured by requesting instructors to select from a list of challenges based on what they have personally felt are issues in LMOOC teaching. Instructors' perceptions of the effectiveness of teaching will be measured by asking LMOOC instructors to rate their level of agreement or disagreement with

a series of declarative statements about LMOOCs on a Likert scale. These statements aim to gauge an instructor's belief about the effectiveness of their LMOOC in regard to how they utilize different strategies and content, how they view their role as an instructor of the course and previous teaching and training experience. As "there appears to be a strong relationship between previous experience and the development of ideas about teaching" (Brown, 2009, p. 47) the questionnaire will also include questions about their training and previous teaching experiences. To further establish instructors' perceptions of effective teaching, specific questions on this were asked on both the online questionnaire and interview.

## **CHAPTER 2 LITERATURE REVIEW**

### **2. Introduction Literature Review**

The purpose of this study is to investigate teacher perceptions of LMOOCs and strategies they use to enhance student engagement. For this purpose, the current chapter reviews relevant research related to these topics. More specifically, the chapter focuses on key strategies they use to enhance learner engagement, instructor perceptions concerning LMOOCs, effective teaching, and challenges they may face. These components include decisions instructors make on course content and the reasons behind these decisions. Each decision in turn has a direct impact on what the students see and types of content and assignments they are engaged with. Essentially all variables in this study are intricately linked with often complex relationships. Firstly, learner engagement strategies used by the instructor within the LMOOC are discussed. The pattern of participation and engagement will be mentioned over the period of a MOOC course. Course content and pedagogies that instructors believe will benefit learner engagement will also be discussed. Instructors' perceptions include their thoughts and beliefs about teaching an effective LMOOC. When discussing instructors' perceptions, the main concepts that will be discussed are how they view their role as an instructor, how their previous experiences in training or instruction has shaped their beliefs of teaching an LMOOC and justifications for the content and course design work. The final section that will be discussed in this literature review will be the challenges that instructors of LMOOCs face. With the massiveness of the MOOC platform a recurring issue is the low percentage of student completion. This challenge has causes which can relate to other challenges such as the part of the instructor and how they consider content, how they use this content to encourage and motivate learners to engage and their important role as the instructor. The application of these issues includes specific challenges relating to language learning, which will be discussed further down. The following literature review will be organized

using thematic classification of learner engagement strategies, LMOOC instructors' perceptions, effective teaching, and challenges they face.

## 2.1 LMOOC Learner Engagement Strategies

The first focus of this research proposal is on strategies that LMOOC instructors use to enhance learner engagement. Learner engagement is arguably the most important challenge for instructors to overcome as student activity levels normally have steep drops between week one and two of MOOC courses (Cassidy, Breakwell & Bailey, 2014). This study is supported by another that states that learners who start out engaged with other learners and actively participated in the first week tended to complete the course (Xiong, Li, Kornhaber, Suen, Pursel & Goins, 2015). Such activities as viewing videos dropped by almost half after the second week of the course; while participation in forums decreased steadily over the course period (Cassidy, Breakwell & Bailey, 2014). The graph below tracked learner engagement in a number of general activities as well as the amount of time videos were played over the course. The study included observations in four English for Business purposes. In every type of activity there proved to be a steep drop in engagement which continued to steadily decrease over time.

Figure 2. Engagement Index



Note. Reprinted from PARTICIPANTS' ENGAGEMENT IN AND PERCEPTIONS OF ENGLISH LANGUAGE MOOCs, by McMinn, S. 2017.

According to McMinn, “MOOC literature does focus on participants’ engagement” but “it is often either too vague or does not adequately show " participation patterns (2017, p. 179).

Learner’s “overall engagement with course content decreases as the course progresses”, leading to a perpetual obstacle (McMinn, 2017, p. 190). The following studies apply both the role of the instructor and course design as a means to improve learner engagement and thus create an effective MOOC and LMOOC. One-way instructors can keep learners interested, motivated, and engaged is through course design (Carr, 2014). LMOOC instructors are tasked with creating “an environment which enhances social learning by including a range of activities and tools which stimulate discussion and collaboration amongst” learners (Motzo & Proudfoot, 2017, p. 88). In LMOOCs, it is important to maximize engagement and interaction in “the form of authentic communication” (Sokolik, 2014, p. 21). To this effect activities, quizzes, written entries and discussions, social media sites, meetings, and allowing instructor visibility to learners etc. are recommended (Sokolik, 2014). Within these studies’ MOOC types, typically xMOOC or cMOOC, are considered as this explains the pedagogical approach and course design (McMinn, 2017). The xMOOC pedagogy follows a more structured approach similar to traditional lectures and the course content is delivered by the instructors (Motzo & Proudfoot, 2017). The “instructor guides the course, often through a syllabus and a sequence of activities" (Sokolik, 2014, p. 18), such as discussion platforms and short videos.

The cMOOC, or connectivist MOOC, emphasizes “on interaction and community building. In language learning, this seems to coincide neatly with the goals of most classroom pedagogy, especially that of the communicative language teaching (CLT) Approach" (Sokolik, 2014, p. 18). This approach focuses “on the learner’s ability to use and adapt language in authentic situations" (Sokolik, 2014, p.18) and actually communicate with the language. According to the Community of inquiry model, connectivism has “the learner at the centre, connecting and constructing knowledge in a context that includes not only external networks and

groups but also his or her own histories and predilections” (Anderson & Dron, 2011, p. 92). The cMOOC pedagogy touts a more learner centered approach where the learning process activates learner engagement within a ‘community of practitioners’” (Motzo & Proudfoot, 2017, p. 87). In cMOOC pedagogy, social media interaction can be used as one type of engagement strategy (Sokolik, 2014). Along these same lines communicative language teaching in cMOOCs requires engagement and connections (Sokolik, 2014). Language instructors use the communicative element in language teaching to provide learners with the opportunity to use language in real situations (Kassem, 2018). The use of technology also helps to practice language skills such as listening. One professor used Skype to record interviews with experts and then shared them on Facebook so that their students could listen to them (Kassem, 2018). Another professor used Twitter and Facebook to give their students listening practice and opportunities to participate in discussions and chats (Kassem, 2018).

As both the cMOOC and xMOOC pedagogies have advantages and disadvantages, there is a suggestion that a combination of both be used in language MOOCs. Sokolik states that the LMOOC should be “an eclectic mix of practices and tools aiming to engage students in the use of the target language in meaningful and authentic ways” (2014, p. 20) to fulfill the goals of language teaching. These practices and tools should focus on appropriate communication applications, videos that provide authentic examples of the language, and awareness of varying proficiency levels (Sokolik, 2014).

As stated earlier in this chapter, the majority of current studies that exist on learner engagement using the LMOOC platform are generally interested in this from the learner’s perspective. There is more of an interest in how learners interact and the choices they make relating to engagement in an LMOOC rather than what instructors do with those observations and changes they make to enhance the engagement experiences for their learners. MOOCs can also offer instructors access to learner analytics and clickstream data, which “shows which items

learners visit in what order, based on mouse clicks and interactions with course content...and completion rates of videos” (McMinn, 2017, p. 181). This data can be analyzed by the instructor to show a wealth of information about participation and engagement. Based on this information, instructors can make changes to the design to initiate and encourage engaging learner behavior such as discussions and levels of participation.

This being said, learner engagement also has a direct link to the prediction in MOOC retention and thus “efforts to design MOOCs in ways that spur engagement need to be explored” (Xiong, Li, Kornhaber, Suen, Pursel & Goins, 2015, p. 31). Retention being the “number of days between the start of the MOOC and the last day of activity by the student” (Xiong, Li, Kornhaber, Suen, Pursel & Goins, 2015, p. 27). It is a well-documented issue to keep learners engaged as MOOCs often struggle with learner retention investigating what strategies increase student engagement is important for successful teaching. In researching strategies LMOOC instructors use to enhance learner engagement varying pedagogies used and the role of the instructor will be critiqued. Cassidy, Breakwell and Bailey investigated learner engagement based on specific components of MOOCs (2014). Their study consisted of five groups that had varying content types including: videos, quizzes, discussion forums, quest tasks, think tasks and whether or not the instructor of the course was an expert in the field (Cassidy, Breakwell & Bailey, 2014). They found that there were differences between the groups’ participation levels as the course went on over six weeks. In the end those with the gamified quest task maintained a higher rate of participation. They also discovered that courses with an expert instructor that actively facilitated the course had a positive effect on learner engagement (Cassidy, Breakwell & Bailey, 2014). Both of these results support the fact that content type and instructor role have a notable impact on student engagement.

One literature review on the effect of multimedia content used in an online course platform warns that there is a proper use of content to avoid an overload of potentially useless

material (Kebritchi, Lipschuetz & Santiago, 2017). They state that although there are varying types of content including “learning games, videos, and simulations. It is important to note that simply incorporating multimedia into the design of online courses is not always the right answer” (Kebritchi, Lipschuetz & Santiago, 2017, p. 13). They go on to claim that “instructors need to ask themselves what the technology will add to the learning activity” and what content will enhance learner engagement (Kebritchi, Lipschuetz & Santiago, 2017, p. 13). As these results pertain to MOOCs in general it also encourages the need for such research into LMOOCs. However, studying learner engagement in LMOOC is a unique experience in itself as it is known that language learning requires “high levels of engagement and interaction” (Beirne, Mhichil & O Cleirin, 2017, p. 31). Bárcena and Martín-Monje make the claim that “the mind that learns (a language) best is the proactive and engaged mind with its high order skills (relating, contrasting, criticizing, inquiring, justifying, deducing, etc.)” (2014, p. 3). Language learners’ minds must be “activated, rather than just memorization and mechanical reproduction” (Bárcena & Martín-Monje, 2014, p. 3). So, while using specific content is important to enhance learner engagement it is also warned that they must be adapted specifically for the language learner (Sokolik, 2014). Creativity and selection of content are incredibly important parts of designing online language learning activities (Hampel & Stickler, 2005).

## **2.2 Perceptions of LMOOC Instructors**

Perception is an individual’s view, making it a “powerful driving force for action” that is unique to them (McDonald, 2011, p. 15). For instructors, how they perceive what effective teaching of an LMOOC involves their perceptions of their role as an instructor, previous experiences in both training and teaching, and course design. The existing literature on MOOC instructors’ perceptions of effective teaching is limited. However, of the literature that does exist they stress the vital role the instructor plays and the plethora of MOOC design and content that

must be determined. Instructor perceptions of these characteristics is reflected in the actions they take when it comes to integrating them and decision making.

Firstly, how instructors perceive their role as an instructor and the impact it may have in a LMOOC is discussed. In many cases these concepts are intertwined and dependent on each other. One study used the TPACK framework to research English language instructors' perceptions of integrating technology into their teaching practices (Kassem, 2018). The majority of participants agreed that "instructors should make a balanced use of technology along with their teaching strategies" (Kaseem, 2018, p. 12). While this study pertains to incorporating technology into their language classroom it shows that part of the role of the instructors is to consider the different technologies available to use in LMOOCs as well as how to use them. According to one literature review on the subject of online course development content issues "may be summarized into the role of instructors in content development, integration of multimedia in content, role of instructional strategies in content development, and considerations for content development" (Kebritchi, Lipschuetz & Santiago, 2017, p. 11). Online learning classrooms can sometimes flip the roles of the instructor and learners around. It can change from teacher-centered to student-centered approaches where the instructor must now be a distant guide or facilitator of learning (Carr, 2014; Kebritchi, Lipschuetz & Santiago, 2017). However, this is further complicated by literature suggesting that for LMOOCs specifically, increased instructor visibility is crucial to help build an engaged learner community (Sokolik, 2014). Therefore, instructors must be reflective in teaching online courses "to ascertain the level of change that must take place each time" the LMOOC is taught (Kebritchi, Lipschuetz & Santiago, 2017, p. 20). To reiterate, instructors must consider what the most appropriate role to play in an online platform is. Given the massiveness of an LMOOC, lack of direct interaction, and individual attention, it becomes all the more difficult to effectively teach any subject let alone one that requires specific skills such as language.

Secondly, an instructor's experiences, whether training or previous teaching experiences, impacts their perceptions of effectively teaching an LMOOC. The TPACK framework explains how an instructor's "understanding of educational technologies and PCK interact with one another to produce effective teaching with technology" (Koehler & Mishra, 2009, p. 62). PCK refers to pedagogy, content, and knowledge (Koehler & Mishra, 2009). The choices that instructors make in the language classroom are highly impacted by their beliefs and these understandings (Williams & Burden, 1997 as cited in Brown, 2009). Wong states that one of the first things that MOOC instructors should do is enroll in a MOOC themselves (2016). It is this firsthand experience and knowledge on the part of the instructor that will positively influence the strategies and methods used later when teaching. Wong goes further to state that instructors with expertise in the course content and those who are passionate about it teach more effectively (2016). This again supports the belief that instructors' perceptions help to determine the effectiveness of teaching a MOOC. Their background training and experience with teaching a LMOOC will impact the overall effectiveness of it. While language teachers "are aware that there are differences between teaching in a traditional, face to face classroom, and online... there is less clarity between what these differences are and what is involved (Sun, 2011). LMOOC teachers who have traditional teaching experience or training may perceive effective LMOOC teaching differently than those who have taught or have training in online language teaching.

Thirdly, content and course design choices are discussed as instructors are the ones making these decisions. What content they believe will be best suited to teach a language online is dependent on their views for each stage of design. An instructor's knowledge of the content, or the CK in the TPACK framework, is essential in teaching (Koehler & Mishra, 2009). Anderson and Dron use the community of inquiry model to prove this point. They state that online instructors need to "be skilled and informed to select the best mix(es) of both pedagogy and technology" (Anderson & Dron, 2011, p. 91). According to one study of 32 MOOCs, there are

four stages of a MOOC which an instructor must pay special attention to in order to effectively teach it (Wong, 2016). These stages are “preparation, attractiveness, participation, interaction and consolidation and post-course support” and they heavily rely on the instructors’ perceptions of teaching (Wong, 2016, p. 107). Instructors of LMOOCs are responsible for preparing and planning content material; essentially, they hold the ability to add, change or delete these materials. Therefore, it is important to understand what their perceptions and experiences are that may assist or influence their decisions. When an instructor designs the content for their online course, they must consider how students learn and the resources and material that will motivate and engage them (Carr, 2014; Kebritchi, Lipschuetz & Santiago, 2017). LMOOC instructors need to find pedagogies and content that provide learners with opportunities to communicate, engage, and participate in producing the target language (Hampel & Stickler, 2005).

One study involving a Spanish course focuses on the challenges of converting a MOOC to an LMOOC (Gimeno-Sanz, Navarro-Laboulais & Despujol-Zabala, 2017). This study summarizes some of the main LMOOC course design challenges for instructors with the following:

When designing an LMOOC, materials writers have to ensure that the course satisfies the target group needs and complies with the set learning goals; that it caters for the needs of the different subgroups in terms of providing self-access and autonomous learning support, opportunities for collaboration (i.e. peer interaction), and expected rewards (Gimeno-Sanz, Navarro-Laboulais & Despujol-Zabala, 2017, p. 51).

While some researchers agree that the key core elements of effectively teaching LMOOCs include content, pedagogy, and community, my goal is to relate how teachers perceive these and how they ultimately use them to enhance learner engagement and overcome the challenges they face (Perifanou, 2017; Perifanou & Economides, 2014). As one article states, instructors’ perspective on MOOC design and pedagogy has a direct impact on challenges faced and strategies used (Zhu, Bonk & Sari, 2018). The content within the online learning platform should “support a good balance between theory and practical hands on practice” (Paterson, 2014,

p. 12). This becomes more difficult when the instructor lacks training or experience in online teaching (Kebritchi, Lipschuetz & Santiago, 2017).

Referring back to the design of the Spanish LMOOC the author stresses the importance for instructors to “continue developments and provide functionalities to cater for different learning styles and personal preferences” (Gimeno-Sanz, Navarro-Laboulais & Despujol-Zabala, 2017, p. 51). To this effect, one study used their experience and learner feedback over a three-year period to make modifications to their online course with the goal of increasing learner engagement. They stressed the importance of considering valuable learner suggestions. This study explained that “understanding learner characteristics is essential for designing online instruction” and meeting their individual needs (Carr, 2014, p. 101). Other research studies support this reflection in direct association with improving content quality and learner engagement (Lin, 2017). They did so by observing comments made by learners and by data provided by their MOOC platform, which in turn allowed them to make content and engagement strategy modifications (Gimeno-Sanz, Navarro-Laboulais & Despujol-Zabala, 2017; Lin, 2017). Insight into how instructors perceive these challenges may assist in their reflections and views on issues. Overall considering teaching experiences in LMOOCs “is fundamental to...meet some of the real challenges and problems faced by individuals” nowadays (Bárcena & Martín-Monje, 2014, p. 10). These tools and thoughtful processes will eventually assist in the inevitable challenges they will contend with while teaching.

### **2.3 Effective Teaching**

Teaching effectiveness can be reflected by teachers’ views (Ko & Sammons, 2013). Instructors’ perceptions of effective teaching are incredibly important as mentioned in the previous section. However, as the concept can be influenced and determined through individual perspectives it is difficult to understand what effective teaching is without first looking into individuals’ perceptions. Therefore, the key elements that should be considered in developing an

effective LMOOC are still under deliberation (Beaven, Codreanu & Creuze, 2014; Perifanou & Economides, 2014; Perifanou, 2017). However, the TPACK framework states that an instructor's knowledge of its main components: technology, pedagogy, and content help online instructors be effective (Koehler & Mishra, 2009).

There are many definitions of effective teaching, most of which are complex and highly debated which, according to some, both relies on and questions “individual teachers’ beliefs” (Ko & Sammons, 2013, p. 5). These beliefs on “what constitutes ‘good’ or ‘high’ quality practice in teaching can vary markedly for different age groups of students, at different times and in different contexts” (Ko & Sammons, 2013, p. 5). As the uniqueness of the MOOC platform has been established, the effectiveness of teaching can thus be viewed as distinctive from traditional or face-to-face teaching. As in traditional teaching, school characteristics and environments help to enable teaching effectiveness, so why should MOOC characteristics not have an effect as well? Thus, instructors who are “unfamiliar with online teaching face the additional challenge of learning new skills and new principles of learning design” (McCormack, Carbone & Dang, 2017). In a study, which focused on how teachers in higher education institutions learn to teach effectively online, it was found that there were differences in what teachers thought was effective in the classroom versus online (McCormack, Carbone & Dang, 2017). The authors described effective teachers as integrating “planning, practice, relationships with students, and reflection” (McCormack, Carbone & Dang, 2017) to increase learning. However, teachers who were “confident with their classroom teaching” (McCormack, Carbone & Dang, 2017) were less so when it came to learning to teach online. The researchers came to the conclusion that their participants:

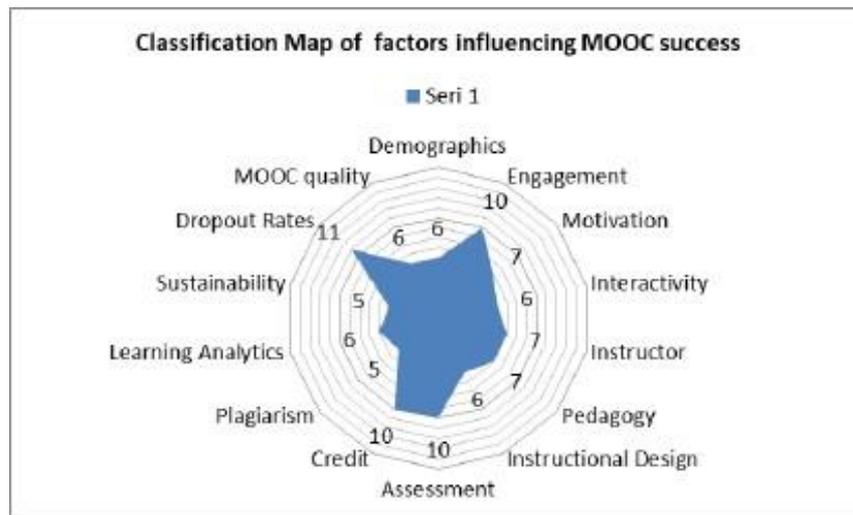
lack a vision for what is possible in the online environment, where their effective classroom teaching has only partially been transferred. This is of deep concern when increasing amounts of teaching are taking place online, whether as part of blended learning or for distance education alone (McCormack, Carbone & Dang, 2017, p. 227).

So, while instructors may be confident in knowing what steps are required to effectively teach, this knowledge is not necessarily reflected when teaching online. Another study found that effective teaching still involved a period of improvement, as well as learning outcomes, and outcomes for specific learners (Ko & Sammons, 2013). Ultimately, teacher effectiveness should not be seen “as an isolated characteristic of the teacher, but as a consequence of many interacting factors (Ko & Sammons, 2013, p. 15). This is further supported by the previous perceptions section which listed instructor role as well as course and content design. These are part of the factors that may contribute to how teachers perceive teaching effectiveness.

#### **2.4 Challenges of LMOOCs**

There are “perceived barriers or challenges to effective learning and teaching” in online courses (Paterson, 2014, p. 6). The “rapid integration of online education into higher education has diverted educators’ attention from closely identifying major challenges in teaching online courses” (Kebritchi, Lipschuetz & Santiago, 2017, p. 6). In order to have an effective LMOOC, instructors usually encounter a plethora of challenges. While MOOC and LMOOC numbers continue to grow these platforms tend to be plagued with certain issues. The most prominent problems found include low completion rates, student attrition, content quality, confusion over the role of the teacher, learner engagement and motivation (Cassidy, Breakwell & Bailey, 2014; McMinn, 2017; Albelbisi, Salleh & Yusop, 2018). The map below shows the results of one study on MOOC literature. The study included a systematic review of 102 studies to identify factors that influence a MOOC’s success (Albelbisi, Salleh & Yusop, 2018). They found that the most important factors to MOOC success are learner engagement, credit, and assessment with a number of other aspects as well (Albelbisi, Salleh & Yusop, 2018).

Figure 3. Factors influencing MOOC success



Note. Reprinted from Mapping the Factors Influencing Success of Massive Open Online Courses (MOOC) in Higher Education by Albelbisi, Yusop & Salleh, 2018.

Other closely related issues, from a different study, include “weak bonding between teachers and students, ignorance to pedagogy, and the mismatching of media and instruction contents” (Lin, 2017). With this list of challenges, the current average rate of successful learner retention is “between 6.5% and 7.5%” (Gimeno-Sanz, Navarro-Laboulais & Despujol-Zabala, 2017, p. 49). While MOOCs in general have their fair share of problems, LMOOCs also have their own unique set of challenges. As “there are different approaches to MOOC design and delivery deriving from distinctive theoretical principles as well as subject-specific considerations” these issues may intensify within the LMOOC environment (Motzo & Proudfoot, 2017, p. 87). One reason for this is the added complication of language learning being skill based as opposed to content or purely knowledge based (Bárcena & Martín-Monje, 2014). That is higher order thinking skills are required because “language learning...is an active process that requires both skill development and knowledge acquisition situated within cultural contexts (Beirne, Mhichil & Cleirin, 2017). One example of this is an LMOOC study for Italian where instructors were tasked with the learning objective of designing activities that would prompt and “encourage use of the target language” in the four skills of reading, writing, speaking, and listening (Motzo &

Proudfoot, 2017, p. 89). This significant difference in subject content and learning goals proves as another obstacle to LMOOC instructors and forces them to rethink how traditional approaches to teaching a language changes online. As previous research stated language is based on skill and communication (Sokolik, 2014; Debarge, 2019; Bárcena & Martin-Monje, 2014). When discussing the need for teacher training on online language teaching, Hampel and Stickler stress the need for content type to be taken into account. In a language course, “communication necessitates this training and support even more: online language courses, especially at lower levels, need to focus on the form of the interaction as well as content” (2005, p. 312). Language instructors should use “their professional expertise - competence in the language and culture, pedagogical knowledge and skills, and experience in teaching the language” (Sun, 2011, p. 432) to decide what traditional language teaching methods will work online. LMOOC instructors should be “aware of the complex task that teaching and learning a language entails”, and not just “transfer the type of instruction found in any language learning textbook, or in the early attempts at CALL, to the MOOC platform” (Sokolik, 2014, p. 27). Instead it should be transformed to best suit the needs of the unique LMOOC platform.

According to one study, which mainly focuses on task-based learning in LMOOCs, traditional methods used in the language learning classroom as well as MOOCs such as the PPP approach, or presentation, practice and production is insufficient in an LMOOC (Debarge, 2019). In this sense, LMOOC content should concentrate on “directly transferable linguistic skills” (Debarge, 2019, p. 102) instead of PPP. Moreover, Debarge states that LMOOC learners should be thought of as first language users as “language as a vehicle for communication rather than as a subject of study” (2019, p. 102). One study explicitly states that there are language barriers in MOOCs due to the fact that learners may be located anywhere in the world and come from any culture. This diversity may be a barrier and impede student engagement (Xiong, Li, Kornhaber, Suen, Pursel & Goins, 2015). One study looking into general MOOCs indicated that if there is

“not a common knowledge base and educational background among MOOC learners” they will not benefit as much from them (Wong, 2016, p. 110). This statement was supported by another paper adding that a potential major obstacle are learners who lack knowledge of the language used in the MOOC (Zhang, Bonk, Reeves & Reynolds, 2019). If this is true for MOOCs, then language learners who are unsure of their proficiency level can also be lost within an LMOOC. This is yet another reason that LMOOCs may have a more difficult time as there are an unlimited number of learners that speak a variety of languages all trying to learn a different one together. As LMOOCs are open to anyone there are no language requirements or proficiency tests which exacerbates this challenge.

As the increase of LMOOCs continues, these issues justify the necessity for such research and to find solutions to address some of the main challenges and strategies used to tackle them. Research offers a list of explanations for these problems that include lack of focus, lack of previous knowledge base and understanding and time constraints on the part of the student (Hew & Cheung, 2014). Other studies related to challenges for MOOCs have been geared toward a variety of topics including “the pros and cons of a wide range of pedagogical approaches” (Baggaley, 2013, p. 369). The role, competency, and strategies of online language instructors are also questioned because of the massiveness of MOOCs (Castrillo De Larreta-Azelain, 2014). Some state that interaction between the instructor and the learner has been skewed due to the varying types of interactions such as learner to instructor and learner to learner (Castrillo De Larreta-Azelain, 2014). If instructors give too little or too much involvement during the course, it may lead to an inferior learning experience. In fact, the connectivist generation of the community of inquiry model states that “the notion of a teacher is almost foreign...except perhaps as a role model and fellow node” (Anderson & Dron, 2011, p. 90).

To put it briefly, major challenges from a variety of directions face both MOOCs and also LMOOCs. These challenges have the possibility of being connected to many other factors such

as learners' language proficiency level or lack of quality in content or pedagogy. Such factors must be rectified by the instructor using well-informed pedagogical choices. Learners of LMOOCs also have a related set of challenges involving time constraints and lack of knowledge or mistaken language proficiency level. Of the major challenges the MOOC instructors face, learner engagement is one of the most prominent. This variable, discussed further in the next section, has proven to be a predictable hindrance to success.

In conclusion this review section has examined the struggles of learner retention and engagement within a MOOC environment as the course continues. Another area of apprehension is the addition of teaching a language itself and the variety of subskills it involves. It went on to discuss the absolute crucialness of the role of the instructor in designing and developing an engaging LMOOC platform. They have the power to create an LMOOC and then adjust content within the course later to opt for more engaging pedagogy for learners. While this involves listening to the learners' feedback it is ultimately the instructor who modifies it. Overall learner engagement is one of the biggest obstacles for instructors throughout the length of their course and special attention must be paid to multiple variables in order to ensure that it is maximized.

## **CHAPTER 3 METHODOLOGY**

### **3. Introduction Methodology**

This methodology section followed some of the most utilized methods for data collecting and analyzing from the literature involving LMOOC studies. This chapter will discuss the research design, provide a description of the participants, explicate the data collection instruments and procedure; finally, it will discuss the data analysis techniques. The most popular data collection methods used to research perspectives on MOOCs are surveys and interviews for a total of 65.2 percent of research between 2014 and 2016 (Deng & Benckendorff, 2017). These studies aimed at collecting mainly descriptive statistics (Deng & Benckendorff, 2017). These statistics sought to determine what engagement strategies LMOOC instructors applied, what their perspectives were on effective teaching, and challenges they faced. By doing so a much-needed addition to the current literature was filled.

#### **3.1 Research design**

In order to thoroughly answer the research questions of this study a sequential mixed methods approach was performed. In this case a quantitative method was applied and then a qualitative method was used as a supplement on a smaller sample group. The initial phase consisted of emailing a questionnaire to current LMOOC instructors with the purpose of collecting descriptive statistics relating to instructors' perceptions, challenges, and engagement strategies used. After the distribution of the online survey an optional interview was completed in order to allow for elaboration and further insight into the research problem. According to Creswell, sequential methods are when "the researcher seeks to elaborate on or expand the findings of one method with another method" (2009, p. 14). It can also be used when "collecting diverse types of data best provides an understanding of a research problem" (Creswell, 2009, p. 18). Using quantitative and qualitative data collection methods helped to ensure that a general picture from the survey was received as well as a more focused and detail-oriented interview

(Creswell, 2003). This methodology chapter provides information on the participants of this study, the data collection process as well as the instruments used and finally the data analysis procedure.

### **3.1.1 Participants**

The goal of selecting a sample was to select in a manner that provided “with sufficiently high degree of probability-a fairly true reflection of the sampling population” (Kumar, 2005, p. 23). To obtain this sample of relevant participants an internet search of courses was done. According to Shah as of 2019 there were a total of 197 LMOOCs listed on major MOOC websites (as cited in Sallam, Martín- Monje & Li, 2020). To acquire the most up-to-date sample pool a search was done. There were two prominent websites, class central and mooc-list, that had a detailed list of MOOCs. A search for “foreign languages” on each website yielded a total list of approximately 237 LMOOCs and their providers. The main providers of LMOOCs were Coursera, edX, FutureLearn, Open2Study, Canvas, NovoEd, Blackboard, iversity and Kadenze (Zhu, Bonk & Sari 2018). A more thorough search was completed to eliminate overlap within the LMOOC list. This overlap may have occurred from duplicates of the same course on each list, courses that involved foreign languages but did not actually teach them and instructors who were involved in teaching more than one course. This provided a list of approximately 200 LMOOCs. This list may have fluctuated as there were sometimes multiple instructors of an LMOOC. As the expected number was fairly small, and to eliminate bias, the questionnaire was sent to all of the current instructors of each LMOOC listed on the databases. Additional LMOOC instructors were also found by contacting other platforms individually such as Edraak and Sawayam. I specified current instructors as technology and platforms change every few months and therefore the knowledge a LMOOC instructor may have had at the launch in 2012 may have been obsolete or outdated in 2020. For example, social media and other platforms such as twitter are commonly used in MOOCs now but were not as popular a decade ago (Gruzd,

Haythornthwaite & Paulin, 2016). Current LMOOC instructors were also easy to identify from course details available online and may have had current information fresh in their minds to answer the survey and interview questions. There were ten participants total. The participants' demographic data for the purposes of this research paper can be seen in Table 3.1 below.

Table 3.1 Participant Demographics

Questionnaire Results: Instructors' Demographics	
Age Range	%
26 - 35 years old	20
36 - 45 years old	40
46 - 55 years old	20
56 - 65 years old	20
Traditional or face-to-face Teaching Experience (years)	%
4-19	80
20 +	20
LMOOC Teaching Experience (years)	%
0 - 2	30
3 - 5	50
6 - 9	20
Has Taken an online course	%
Yes	90
No	10
Models of Online Course Taken	%
100% online course offered by a college and university	55.6
Massive Open Online Courses (MOOCs)	77.8
Hybrid course – 50% of the course is online, while the other 50% regularly meets face-to-face	33.3
Webinar – live online educational presentation	55.6
N/A	0
Formal Training for Teaching Online Courses	%
Yes	40
No	60
Informal Training for Taking Online Courses	%

Yes	70
No	30
<b>Total Number of LMOOCs Taught</b>	<b>%</b>
1	50
2	0
3	10
4 +	40
<b>Enrollment in most recent LMOOC</b>	<b>%</b>
Less than 5,000	30
5,001 - 10,000	30
10,001 - 15,000	0
15,001 - 20,000	0
More than 20,000	40
<b>Number of people completed most recent LMOOC</b>	<b>%</b>
Less than 5,000	70
5,001 - 10,000	20
10,001 - 15,000	0
15,001 - 20,000	0
More than 20,000	10
<b>Length of current LMOOC</b>	<b>%</b>
Less than 1 week	0
1 - 3 weeks	30
4 - 6 weeks	30
7 - 9 weeks	10
10 + weeks	30
<b>Delivery Format of most recent LMOOC</b>	<b>%</b>
Instructor led with teaching assistants, moderators, and/or tutor support	50
Instructor led with no additional teaching support	40
Primarily learner/participant driven (i.e., cMOOC)	10
Self-Paced	40
Hybrid or blended type of MOOC	0
Other	0

As shown above all participants had several years of traditional teaching experience with a majority of them having had three to five years of LMOOC teaching experience. Half stated that they had only taught one LMOOC, while 40% taught a total of four or more. All participants except one had previously taken an online course to include MOOCs. While the majority said

that they had not received formal training for online teaching, 70% said that they completed informal training in order to teach online. The data collected on their LMOOCs themselves showed that more than half had an enrollment of less than 5,000 or 5,000 to 10,000 learners. However, 40% of instructors who taught LMOOCs had 20,000 or more learners enrolled, the completion rate resulted in 70% with less than 5,000 learners completing the course. This drew attention to extremely low retention rates.

Table 3.2 Instructors' Teaching Experience and Training

	1	2	3	4	5	6	7	8	9	10
Traditional Teaching Exp. (years)	4 -19	4 -19	4 -19	20+	20+	4 -19	4 -19	4 -19	4 -19	4 -19
LMOOC Teaching Exp. (years)	3-5	0-2	3-5	6-9	3-5	6-9	0-2	3-5	3-5	0-2
Taken a course online (Y/N)	Y	Y	Y	Y	Y	Y	N	Y	Y	Y
Formal Training (Y/N)	Y	N	Y	N	N	Y	N	N	N	Y
Informal Training (Y/N)	Y	Y	Y	N	Y	Y	Y	N	Y	N
Previous teaching/training allows me to teach my LMOOC more effectively. (SD, D, A, SA)	A	S/A	S/A	S/A	S/A	S/A	S/A	A	S/A	A

It was found that most instructors had similar backgrounds in traditional teaching experience with some variance regarding LMOOC teaching experience. However, five of the instructors had between three and five years of LMOOC teaching experience. All but one instructor had taken an online course and while six of the ten instructors did not receive formal training on how to teach online, seven did receive informal training. Overall, all of the instructors agreed or strongly agreed that their experience allowed them to teach their LMOOC more effectively.

Of the four instructors who volunteered to be interviewed the following information includes the languages they taught, the geographical region they taught in, whether their

LMOOC was affiliated with a university, organization or government, and motivation for offering an LMOOC and how they described their role as an instructor.

Table 3.3 Instructors Interviewed

Instructor	Lang. Taught	Geo. Region	Affiliation	Motivation	Instructor Role
#1	Chinese	U.S.A	University	Requested to teach	Course designer w/limited participation
#2	English	Spain	University	Volunteered to teach	Assigned roles of facilitator/moderator/etc.(multiple instructors)
#3	Hindi	India	University	Volunteered to teach	Course designer/ Responds to emails/questions
#4	Spanish	U.S.A	University	Volunteered to teach	Active participation/conducts weekly live sessions

All interviewed instructors taught different languages. Two of the four instructors were located in the United States of America. Instructors #2 and #3 were located in Spain and India, respectively. All were affiliated with a university with three of the four instructors stating that they volunteered through their university program initiatives, while one said that they were requested to offer one. These initiatives involved universities being approached by MOOC platforms such as edX and Coursera or government MOOC platforms.

### 3.2 Data Collection Instruments

This study was completed solely online and used electronic surveys and video platforms for the interviews. This online survey can be viewed in Appendix I and is a combination of questions used by Crues, Bosch, Perry, Angrave, Shaik & Bhat (2018) , Evans & Myrick (2015), Lin (2017) and Martin (2017) done in the area of general discipline MOOCs. These articles and dissertations focused on either instructor quality or experiences and learner engagement within a MOOC. As stated previously, the literature done in the area of MOOCs as LMOOCs literature is

extremely limited regarding the particular area of instructor's perception of student engagement and challenges within the LMOOC environment. The methods and data collection methods based on MOOC literature were transferred to the research into LMOOCs as they are similar platforms with varying subskills. The optional interview was completed using Skype and Zoom platforms based on the interviewee's preference. The interview questions can be viewed in Appendix II of this paper. The set of interview questions were adapted and modified from Lin (2017) on MOOCs in Tourism and Hospitality. Both surveys and interviews were done to add depth of understanding by not only showing descriptive statistical support but also providing a deeper understanding from the mindset of the instructors themselves. As my data collection process resulted in fewer responses than anticipated, a course content analysis of four LMOOCs was added to further validate the data set. These four LMOOCs were chosen as highly rated, current, LMOOC courses from the class central website. According to Nagai, content analysis can be defined as a "research tool to determine the presence and frequency of specific words, concepts, or themes within text. Materials used can include books, newspaper articles, historical documents, speeches, film, television shows, i.e., any type of recorded communication" (2015). These LMOOC courses were analyzed for engagement strategies and content as stated in the online questionnaire and interview questions.

### **3.2.1 Online questionnaire**

The online questionnaire was divided into three-sections and addressed all research questions. The first section, questions 1 through 11, of the questionnaire pertained to the demographics and background of the LMOOCs and instructors. It contained a combination of multiple-choice responses with a few questions allowing for the option of "other" for those responses not listed. If the instructor chose this option a following section was provided for the instructor to fill in. These responses asked for age range, teaching experience, both face-to-face in a traditional sense and online, types of training they have received to teach MOOCs, and

lastly, the name and size of their current LMOOC and delivery format. These questions had the aim of building a background of the instructor's knowledge, understanding and the possible effects regarding what the instructor's perceptions were of effectively teaching LMOOCs. The second section attempted to gauge instructors' perceptions with a series of belief statements. It also sought information about the methods they employed to enhance student engagement. For both of these question types a series of Likert scales with four points: strongly disagree, disagree, agree, and strongly agree were provided. There was also a N/A (Nonapplicable) choice as some instructors may not have used that particular resource or strategy. The Likert rating scale was used to gather data about what strategies LMOOC instructors believed made highly effective LMOOCs or not. This section also consisted of selecting statements regarding instructor challenges for LMOOCs taken from the current literature. Again, the section was followed up by an optional comment question for further explanation or addition of other challenges faced. The responses gathered in this section assisted in answering the second and third research questions which related to challenges LMOOC instructors faced and methods they used to enhance student engagement.

To further explore possible responses to the research questions in teaching LMOOCs the third section of the survey questionnaire included open-ended items. This section had the goal of allowing instructors the opportunity to describe or elaborate on some of their previous responses. These short answer questions worked to directly answer all the research questions by inciting from the instructors "the top three challenges...encountered" (Zhu, Bonk & Sari 2018, p. 240) when teaching their LMOOC and the top three strategies used to enhance student engagement. The final question asked the instructor if they "would be willing to participate in a follow-up interview" (Zhu, Bonk & Sari 2018, p. 239) and to provide their email address if they were.

Piloting was completed for this online questionnaire by sending it to an experienced MOOC instructor who had taught his MOOC for a total of three years. A limitation to this pilot

study was that the instructor was that of a business MOOC and not of an LMOOC. However, as they are similar in course design this researcher felt it beneficial in determining clarity of questions and instructions of the survey. The feedback provided positive comments with stress on making sure that each question had a purpose and would be covered in the analysis. There was also concern expressed over the limited pool of potential participants. This potential problem was remedied with the data collected from the interviews and content analysis. This survey was also reviewed by a graduate student at a university's applied linguistics department to ensure the level of clarity for questions and instructions. Feedback provided led to several changes regarding the wording of questions, specificity, and relevance. Therefore, one survey question was deleted, one was added and three were modified in order to provide adequate answers to all research questions.

### **3.2.2 Interview**

If the instructor gave permission to be contacted for an interview the attached semi-structured interview in Appendix II was asked via Skype or Zoom. As participants had the potential to be located around the globe an internet connection was vital and non-optional. All participants had access to the internet, so this was not a problem. These questions were dependent on the data collected from the survey. The semi-structured approach used allowed the interviewer some flexibility to ask questions that came up during the structured questions or based on the results of the questionnaire. Modifications to interview questions were made based on the instructor's responses. Creswell stated that questions in a mixed methods study could "either be written at the beginning or when it emerges; for instance, in a two-phase study in which one phase builds on the other, the mixed methods questions might be placed in a discussion between the two phases" (Creswell, 2009, p. 138). There was a total of eleven main interview questions in this study. Some of these questions contained sub questions. These sub questions were only asked if applicable to allow for further pertinent data collection. Each

interview question was chosen to further describe the instructors' perceptions of teaching LMOOCs and elaborate on specific instances of challenges faced and engagement strategies used. These interviews were recorded using an audio software built into the video platform and transcribed into a word document. Each transcription was saved anonymously as "Instructor" and the number of the interview. The interview questions were again reviewed by the graduate student in the applied linguistics department. Based on their suggestion the interview was shortened to 20 – 30 minutes and the questions were clarified. This timeframe seemed sufficient for the amount of questions. Some interview questions were shortened in an attempt to decrease the overall time length required as more time seemed excessive. According to one review of literature on MOOCs the range in number of interviewees in MOOC studies was between 4 and 60 (Deng & Benckerdorff, 2017). This study aimed to be within that range.

### **3.2.3 Course Content Analysis**

The process of content analysis was to make "replicable and valid inferences from data to their context, with the purpose of providing knowledge, new insights, a representation of facts and a practical guide to action" (Krippendorff 1980 as cited in Elos & Kyngos, 2008). The goal of course content analysis in this study was to discuss and describe the actual course content of highly rated LMOOCs related to learner engagement strategies. As "the first stage of undertaking a content analysis is to develop the categories and the explicit rules for classifying the words and themes" (Nagai, 2015, p. 472), this researcher created themes using the engagement strategies list from the online questionnaire. Specifically, the focus was on engagement strategies to include content, resources, materials, activities, events etc. employed within the LMOOC. For example, the online questionnaire asked instructors how often they use videos, social media, discussions, etc. The course content analysis described, in more detail, the types used in the LMOOC and how often they occurred. In order to gather the data regarding content analysis of the LMOOCs this researcher created accounts on the MOOC platforms and enrolled in the courses of the top

rated, current LMOOCs found using classcentral.com, a MOOC database. This database included MOOCs from several different platforms such as Coursera and FutureLearn. It also allowed the option to filter results based on rating and currency. The keywords chosen to find LMOOCs were again “foreign languages”. The languages of the LMOOCs chosen were two English courses, French, and Mandarin Chinese. Content Analysis was ideal because when done correctly it provides “evidence that can support, or sometimes dispute, the qualitative interpretation of text” (Nagai, 2015, p. 479).

### **3.3 Data collection procedures**

The aim of this research method was to provide a large set of data and narrow the focus to provide a rich depth of information. As previously stated, the participants were chosen after a search on two popular compiled databases of MOOCs. Again, to eliminate bias, the questionnaire was sent to all of the current instructors of each LMOOC that this researcher was able to find current email addresses for. These email addresses were searched for if they were not readily available on the MOOC platforms. This process involved creating a spreadsheet that included the LMOOC title, instructors, and the university they were associated with. This researcher went to each university faculty webpage and collected their email addresses. Other email addresses were found through their published work or colleagues. The decision for the dispersion of the online questionnaire was to use Google Forms, a popular online survey platform. This platform did not require gmail accounts for completion of the survey and was free to use. The advantages of using this platform was the ability to instantly create graphs and statistics from the collected data. The questionnaire was sent via email with the online survey embedded into the body of the email so that participants would not have to click on a separate link. To increase the potential for survey responses I requested that LMOOC instructors send the survey to other current LMOOC instructors that may have been overlooked using the snowball sampling method. The consent form from AUC Institutional Review Board (IRB) was sent with

each online survey, so all new participants were automatically provided with it. Only those instructors that gave permission to be contacted for an interview at the end of the online survey were sent an email with a request for a meeting, otherwise email addresses and names were not collected. Again, these interviews were recorded using built in recording software and transcribed into word documents. Instructors were informed of interviews being recorded through the IRB consent form. They were also reminded that they were being recorded at the beginning of the interview. Finally, content analysis of the current, highest rated LMOOCs on classcentral.com was performed using popular engagement strategies listed in existing literature.

### **3.4 Data analysis techniques**

Once the data was collected from the survey questionnaire an excel spreadsheet was used to create an initial coding for the response choice and answers. This code consisted of using nominal and ordinal scales with themes for the open-ended questions. For the Likert scales ordinal coding was assigned. For example, 1 for strongly disagree, 2 for disagree, 3 for agree, and 4 for strongly agree. The section for the strategies that the instructors used to enhance student engagement in their LMOOC was also on an ordinal scale. This scale ranged from Very Often, Often, Sometimes, Rarely and Never utilized. Once again, an ordinal ranking was given from 1 for very often to 5 for never. An ordinal ranking scale was chosen for the Likert scale questions to arrange them “in the order of the magnitude of the...characteristic” (Kumar, 2005, p. 68) that needed to be measured. These measurements included descriptive statistics of frequency distributions, mean, and standard deviation of the elements within each section of the questionnaire. As “descriptive research attempts to describe systematically a situation, problem...or provides information about, say, the living conditions of a community, or describes attitudes towards an issue” it was appropriate for this research study (Kumar, 2005, p. 10). The open-ended response was collected and evaluated into main themes. As previously stated, the questionnaire was coded and categorized prior to the interviews taking place. This was to ensure

that the interview questions, used with the intention of creating more of a focus in the research, were relevant and added to the data set. The content of the interview recording was first transcribed, analyzed into themes and then coded. These themes were colored coded from the transcripts using qualitative highlighting. An excel spreadsheet was again used to create a database of the resulting themes from the interview. These themes were used within the results section, and supported by quotes from the interviews, to add to the findings of the survey.

## CHAPTER 4 RESULTS

### 4. Introduction

Three research questions were addressed in this study. The first question looked into strategies LMOOC instructors use for enhancing learner engagement. The second research question endeavored to gain insight into how LMOOC instructors perceive effective teaching. While the third question attempted to identify the challenges that LMOOC instructors encountered. An online questionnaire including a combination of Likert-scale and open-ended questions was disbursed to current LMOOC instructors. These online questionnaires were emailed to participants as a Google Form. To further validate these responses four interviews were conducted. The interviews sought to allow instructors to expand on their engagement strategies, perceptions, and challenges. These were fulfilled through questions about their roles, approaches, and strategies to teaching (See Appendix II for interview questions). Finally, to observe the engagement strategies used, four top rated LMOOCs were investigated through content analysis. The following section was separated to address the three research questions of engagement strategies, instructors' perceptions of teaching effectiveness, and challenges. Each section was organized to give a general overview of the results of the research question followed by specific themes. .

#### 4.1 Engagement Strategies

To investigate the research question on engagement strategies LMOOC instructors use, a combination of the online questionnaire, interview questions and content analysis on current, top rated LMOOCs was used. The first section of the online questionnaire helped to provide a general description of engagement strategies employed. It accomplished this by providing a list of common engagement strategies with a five-point Likert scale ranging from "Very Often", "Often", "Sometimes", "Rarely", and "Never". The choice of "Very Often" was coded as a 1. This score increased in increments of 1 with "Never" equalling 5. The table below shows the

total frequency of each item listed and their average percentage of occurrence, and standard deviation.

Table 4.1 Engagement Strategies

Engagement Strategies	Very Often	Often	Sometimes	Rarely	Never	Mean	SD
Use visuals (e.g., concept maps, diagrams, flowcharts, timelines, etc.), animations or interactive contents	7	2	0	1	0	1.5	0.97
Encourage students to contribute to the discussion forums or threads	5	4	1	0	0	1.6	0.7
Offer or encouraging breakout discussion forums or groups	3	4	3	0	0	2	0.82
Include study aids (study guides, Practice quizzes and exams etc.)	5	4	0	1	0	2.2	1.48
Include instructor material (lecture notes, PowerPoint and other presentation slides, Video lectures and tutorials etc.)	5	1	2	1	1	1.7	0.95
Encourage student collaboration by assigning peer work or peer reviews and/or use collaboration documents (Google docs, wiki docs etc.)	3	2	3	2	0	2.4	1.17
Assign or encourage learner blogs / vlogs/ journals	1	1	4	1	3	3.5	1.14
Utilize mobile applications	1	5	3	0	1	2.5	1.08

Include popular media (e.g., news stories and videos, podcasts)	4	3	2	1	0	3	1.05
Incorporate live events (Virtual conferences and summits)	1	1	3	0	5	3.7	1.49
Provide readings (including textbooks, literature, and scientific and technical reports)	1	6	1	1	1	2.5	1.17
Use Simulations and games / gamification / virtual worlds	1	0	3	4	2	3.6	1.17
Social media (e.g., Facebook, Instagram, Snapchat, Twitter, Pinterest, etc.)	1	3	3	2	1	2.9	1.2
Video examples (e.g., TED talks, YouTube, etc.)	4	4	2	0	0	1.8	0.79
Encourage students to be involved in authentic projects	3	2	4	1	0	2.3	1.06
Incorporate expert interviews into the lesson	1	1	4	2	2	3.3	1.25
Hold synchronous lectures, meetings, and events (e.g., Skype, Google Hangouts, Zoom, etc.)	2	1	3	2	2	3.1	1.45
Arrange or encourage local meetups	0	1	2	0	7	4.3	1.16
Provide options with assignments	2	1	5	0	2	2.9	1.37
Total Freq. of occurrence:	50	46	48	19	27		
Average percentage of occurrence:	26.3%	24.2%	25.3%	10%	14.2%		

According to the average percentage calculated for each response choice it can be reported that most instructors used each engagement strategy either “Very Often”, “Often”, or “Sometimes” with only small differences between each. The most often used engagement strategies were visuals, discussion forums, study aids such as practice quizzes, and instructor material such as video lectures. Visuals, study aids, and instructor material can be categorized under content. Discussion forums can be placed under interaction and participation. The least used included local meetups, live events, and vlogs (video blogs) or blogs respectfully.

In the third section of the online questionnaire instructors were asked what the three most important strategies they considered when teaching to enhance student engagement were. They were also requested to rank them from number one, the most important, to three being the least important. This helped to focus and narrow down what they considered to be the most important strategies. All participants were labeled by letters. This served a dual purpose of respecting confidentiality and differentiating them from the numbered interviewees.

Table 4.2 Rankings of Engagement Strategies

Instructor	Most Important	Moderately Important	Least Important
A	creating videos and other instructional materials that were easy to understand and attention grabbing	creating meaningful discussion questions	giving useful feedback -designing quizzes with automatic feedback for wrong answers
B	Encouraging discussion board participation.	Weekly reminders of progress and upcoming assignments.	Currency or relevance of materials.
C	Follow the student progress	balance between technology and contents	develop amusing and real contents
D	encouraging students to engage in the Forum so that they	providing techniques to foster speaking practice	engaging students in peer-assessment activities

	could interact with fellow students		
E	Instructor participation	Live/synchronous discussion sessions	Peer review of assignments
F	Get them interested in the course from the very beginning	Keep them on track	Provide a suggested learning timeline that they should follow if they wish to complete the LMOOC successfully
G	deductive	role play	group work
H	I put myself at their place and live the experience	--	--
I	Being active as a tutor	provide a great variety of study material	stimulate sending comments and help each other
J	Good material	Ensuring healthy discussion	Creative assignments

Again, the responses to the open-ended questions were compiled and categorized into six themes ranging from most frequently occurring to least frequently occurring. The themes were: Content/Activities, Giving Feedback/Peer Feedback, Discussions, Reminder of content/progress, Instructor Role, and other. The other category included two nonresponses, “deductive” which was unclear and “get them interested in the course from the very beginning” and was not considered in the following discussion.

Table 4.3 Engagement Themes

“Engagement Strategy” Themes	Most Important Frequency	Moder. Important Frequency	Least Important Frequency	TOTAL FREQ.:
Content/Activity	2	4	4	10
Discussion	2	3	1	6

Giving Feedback/Peer Feedback	0	0	3	3
Reminder of Progress	1	1	1	3
Instructor Role	3	0	0	3
Other	2	1	1	4
<b>TOTAL:</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>30</b>

The two main themes from the open-ended section of the questionnaire were interaction, participation, and content. They will be discussed below, and the results will be corroborated using the interview data.

#### **4.1.1 Interaction and Participation**

The themes of discussions and feedback/peer feedback mentioned in the open-ended response for the questionnaire were placed under interaction and participation. Falling under the category of discussions were: “encouraging discussion board participation”, “encouraging students to engage in the Forum so that they could interact with fellow students”, “ensuring healthy discussion”, “creating meaningful discussion questions”, “live/synchronous discussion sessions”, and “stimulate sending comments and help each other”. Feedback and peer feedback comments included: “giving useful feedback -designing quizzes with automatic feedback for wrong answers”, “engaging students in peer-assessment activities”, and “Peer review of assignments”.

During the interviews, all instructors had a lot to say about the need for interaction and participation. Unlike the previous data from the online questionnaire the instructors not only mentioned the idea of interaction, but they also used discussion forums to enhance it. Therefore, the interview responses also placed mentions of discussion under interactions and participation. When asked about engagement strategies all four interviewees put a lot of emphasis on

interaction. The following interview excerpts explained how instructors not only incorporated interaction into their course, but also what they would like to use in the future. For example, Instructor #1 attempted to get learners engaged by physically getting them to do something such as drills.

“I would say, I would go back to my whole philosophy about making students feel like they can follow along with the video and be active, because the video is asking them to do things physically. I ask them to physically get out a pencil and paper.”

Instructors #2 and #3 stressed the importance of interaction within an LMOOC, not only between the instructor and learners or in discussion forums, but also between peers in the form of peer feedback.

“Interaction is very important...we will give general guidelines and we will organize it in a way that they can get peer-to-peer feedback, self-evaluations, there are ways to do it.”

“There is an interaction forum also the students can raise any issue, problem, or any doubt or query.”

While many instructors listed the current interaction enhancing tools and methods they used, currently there was also a big push for more “true interaction” as Instructor #2 stated. Instructor #4 took this a step further by providing a specific example for how interactivensness could be improved.

“I would like to make the discussion forum more interactive in the sense, to make it more like Facebook where you get an immediate notification if someone has responded to your post. It would increase communication among the students it would increase the sense of community a sense of interconnectedness in an engaged community”

So, while instructors have certain tools at their disposal there are limitations to them and room for improvement.

### 4.1.2 Content

The second theme of content and activities contained the highest amount of mentions total in the open-ended response. The majority of the mentions were in the “Moderately Important” and “Least Important” at 40% for both. The responses included in this theme were: “creating videos and other instructional materials that were easy to understand and attention grabbing”, “currency or relevance of materials”, “creative assignments”, “good material”, “develop amusing and real contents”, “provide a great variety of study material”, “providing techniques to foster speaking practice”, “balance between technology and contents”, “role play”, and “group work”.

These results were further supported and elaborated on during the interviews. Content was the second theme mentioned for engagement strategies. Instructor #3 emphasized their use of visuals such as PowerPoint. As Instructor #3 stated:

“Not only voice lectures, but PowerPoints are also there and graphics, and images. We can show whatever we want to show which is not possible in class sometimes, because we have interference.”

They also went on to say that each week they released new material that consisted of:

“Study materials, we do lectures, and e-texts and a bibliography on the platform, week wise”

In addition to a continuous release of content and material on a weekly basis instructor also specified that the use of content must also be thoughtfully created and chosen for optimal engagement. Instructor #2 gave an example of this:

“We have seen that the shorter the videos the better and you can...after maybe three [minutes] the students get disengaged. Basically, so keep them short. Five minutes is enough if you have a lot to say then make lots of small, short videos.”

### 4.1.3 Content Analysis

In order to ensure that engagement strategies have been fully investigated and authenticated, a content analysis was completed. The content analysis analyzed four, current and top rated, LMOOCs found on a popular MOOC database. A description of each regarding language taught, rating of stars out of 5, and length of the course can be found below. The star rating system was based on reviews from learners on the class central website. This researcher enrolled in and observed each LMOOC for the engagement strategies that were listed in the online questionnaire mentioned earlier is also located below.

Table 4.4 LMOOC Descriptions

Course	Language & Affiliation	Aimed to Teach	Number of Stars Rating (out of 5)	Length of Course (weeks)
#1	English (British Council)	English using Shakespeare	5	6
#2	English (University of Pennsylvania)	ESP (S.T.E.M)	4.5	5
#3	French (École Polytechnique)	Intermediate French (B1 - B2)	5	6
#4	Mandarin Chinese (Shanghai Jiao Tong University)	Beginner Chinese	5	5

Of the four LMOOCs three of them were offered by Coursera and one was offered by FutureLearn. Likewise, three were offered by universities and one was offered by an organization. Their length varied between five and six weeks long. LMOOC #1 and #2 both taught English; however, #1 was British English and #2 was American English. LMOOC #3 taught French and LMOOC #4 taught Mandarin Chinese. The results of the content analysis can be found below.

Table 4.5 LMOOC Engagement Strategies

Engagement Strategies	LMOOC 1	LMOOC 2	LMOOC 3	LMOOC 4
Use visuals (e.g., concept maps, diagrams, flowcharts, timelines, etc.), animations or interactive contents	Timeline	Weekly goals/ timeline Graphs	Suggested weekly goals/ timeline Comics	Timelines for weekly goals Charts to break down vocab. and definitions
Encourage students to contribute to the discussion forums or threads	Discussion (vocab. practice, topic, etc.)	Weekly discussion prompts	Weekly discussion sections	Encourages weekly discussion forums
Offer or encouraging breakout discussion forums or groups				
Include study aids (study guides, Practice quizzes and exams etc.)	“What do you remember?” Quiz True/False “Testing your knowledge of” (optional)	“Check your understanding” Quizzes Quizzes embedded in video lectures (70% or higher to pass)	Weekly Practice quizzes and Quizzes (60% - 80% or higher to pass)	Weekly Practice quizzes and Quizzes (80% or higher to pass)
Include instructor material (lecture notes, PowerPoint and other presentation slides, Video lectures and tutorials etc.)	Videos (review, tips, content, vocab.)	Weekly lecture videos per unit/topic	Weekly videos/ lectures (grammar, vocab. oral and written comp.)	Weekly videos on both new vocabulary and phonetics
Encourage student collaboration by assigning peer work or peer reviews and/or use collaboration documents (Google docs, wiki docs etc.)		Peer graded assignment per unit	Several peer graded assign.	Week 5 (last week) Peer- graded assign.
Assign or encourage learner blogs / vlogs/ journals				
Utilize mobile applications				Available mobile app.

Include popular media (e.g., news stories and videos, podcasts)		Newsela articles on unit/topic		
Incorporate live events (Virtual conferences and summits)				
Provide readings (including textbooks, literature, and scientific and technical reports)	Relevant Articles such as National Geo.	Readings for basic and advanced proficiency levels	Comprehensive readings w/ highlighted vocab. and phrases	Links to short readings were provided
Use Simulations and games / gamification / virtual worlds	Virtual tour link	Vocabulary flashcards, awards Matching games unlockable achievements		
Social media (e.g., Facebook, Instagram, Snapchat, Twitter, Pinterest, etc.)				
Video examples (e.g., TED talks, YouTube, etc.)				
Encourage students to be involved in authentic projects	Record yourself saying lines of a play <a href="http://www.vocaroo.com">http://www.vocaroo.com</a>	Instructions for at-home Experiments		
Incorporate expert interviews into the lesson	Expert interviews with actors	Expert interviews in different topics		Interview videos on Cultural Tips
Hold synchronous lectures, meetings, and events (e.g., Skype, Google Hangouts, Zoom, etc.)	Facebook Live Broadcasts			Optional live sessions
Arrange or encourage local meetups				
Provide options with assignments		Different proficiency levels for		

		readings (basic and advanced) Options with assessments		
Other (fill in the blank – optional):	To Do List/ Progress	Progress Bar Bonus material (readings, quizzes, etc.)	External Resource/ links	Embedded audio clips for pronun.

Although the entire list of engagement strategies was provided above, the focus was primarily on the strategies that were found in all the LMOOCs. This included the use of visuals, encouraging learners to participate in discussion forums, study materials to include practice quizzes, instructor material such as video lectures and presentations, and readings. These results corresponded to the previous two online questionnaire sections with a focus on interaction and participation and content. A description of each of the main strategies used in the LMOOC is given below.

Visuals used included timelines, graphs, comic strips, cartoons, and charts. Timelines were used by the LMOOCs to showcase the progress of the course. They were also used as part of the content when LMOOC instructors needed to show key points such as events as in LMOOC #1. LMOOC #3 used comics both as visual content and in videos. LMOOC #4 used tables to break apart words, their definition, and part of speech. This aided in showing a clear breakdown of the necessary vocabulary that learners needed to know.

Each LMOOC had active discussion forums with the encouragement to ask questions and leave comments on each weeks' module or unit. LMOOC #2, #3, and #4 had an optional subscription to the discussion thread where learners would receive emails whenever something new was posted. This was most likely designed to increase learner engagement by allowing them to post and continuously interact with others who responded. Learners could also "Upvote", "Follow" and reply to each other's posts. LMOOC #3 was designed for intermediate language learners, therefore the entire course content was in French with the exception of some content

titles. To verify that all content was accurately understood, this researcher used Google translate for some vocabulary and terms. This LMOOC had weekly discussion sections that not only included a discussion and debate prompt, but also a video and reading. LMOOC #2 was divided into units with focus on different concepts. Each unit or topic, such as climate change and global warming, included a discussion prompt. LMOOC #1 had a similar design in which discussion forums were based on relevant topics to the course.

Study aids such as practice quizzes were a main part of each LMOOC. While the last three LMOOCs were very similar in structure of quizzes there were some differences. Each course included weekly multiple choice or true/false quizzes with a minimum score required to pass. These scores varied by LMOOC. For example, LMOOC #1 had completely optional quizzes while the other LMOOCs' minimum percentages required to pass ranged from 60% to 80%. It was explained that the optional quizzes did not count towards the overall course score with multiple attempts allowed. LMOOCs #2, #3, and #4 had practice quizzes before the actual quizzes. The practice quizzes were shorter in length and learners had to pass them before they could continue to the full-length quiz. Also, for these LMOOCs the learners could view feedback, which was automatically generated, and could try again until they succeeded.

Regarding instructor material, each LMOOC included short videos. Most of these videos were prerecorded of the instructor. Videos in LMOOC #4 were focused on phonetics, new vocabulary, and cultural tips. Videos had transcripts that learners could follow along with and read at the same time. Most videos were between two and twelve minutes long. LMOOC #3 opted for a series of short, around two to seven minutes long, videos each week. These videos covered grammar points, oral comprehension, vocabulary, etc. LMOOC #2 had multiple videos per unit varying between four and six minutes long. The main content of these videos included: reviews, tips, themed content, and vocabulary.

The readings include textbooks, articles, or other literature. For LMOOC #4, readings were short with the main focus on dialogue, phonetics, and written characters. The dialogue was in the target language and the translation to English was provided later. Other concepts, such as phonetics and written characters, were explained in English. External links to files that resembled a few pages of electronic textbooks were also provided. LMOOCs #1 and #2 both provided relevant articles geared towards their unit themes. LMOOC #2 provided both basic and advanced copies of the same articles. LMOOC #1 utilized various lines from famous plays as well. LMOOC #3 provided a series of comprehensive readings with underlined vocabulary and phrases that learners might not know.

#### **4.2 Perceptions of LMOOC Instructors**

To address the second research question the online questionnaire and interview data were used. The first section of the questionnaire was designed to tap into LMOOC instructors' perceptions about effective teaching. To investigate instructors' perceptions, a number of 4-point Likert scale questionnaire items were asked. Again, the responses were coded beginning from "Strongly Disagree" at 1 to "Strongly Agree" to 4. As previously explained, LMOOC instructors' perceptions on effective teaching addressed issues related to engagement strategies, pedagogies such as cMOOCs and xMOOCs, and their role as an instructor. To further elaborate on and understand LMOOC instructors' perceptions of teaching effectiveness interviews were conducted. Four instructors volunteered to be interviewed by supplying their email addresses at the end of the online questionnaire. Each instructor was referred to by a number in order to respect confidentiality. Based on the interviewee's responses to the questions regarding their perceptions of effective teaching, namely questions one, three, four, seven, and nine, of instructor perceptions were considered. The table below shows a breakdown of instructors' perceptions on each in terms of the Likert scale for the questionnaire. The results from the interview were incorporated with the questionnaire results in the following section.

Table 4.6 Perceptions of Online Teaching Effectiveness

Questionnaire Results: Instructors' Perceptions				
Overall, I believe that LMOOCs are effective in learning a language.	Instructors (out of 10)	%	Mean	SD
Strongly Disagree/Disagree	1	Disagree: 10%	3.2	0.63
Agree/Strongly Agree	9	Agree: 90%		
I believe that LMOOCs are just as effective in learning a language as traditional or face-to-face classrooms.				
Strongly Disagree/Disagree	4	Disagree: 40%	2.8	0.79
Agree/Strongly Agree	6	Agree: 60%		
I believe that student engagement is essential for an effective LMOOC.				
Strongly Disagree/Disagree	1	Disagree: 10%	3.4	0.7
Agree/Strongly Agree	9	Agree: 90%		
I believe that it is important to use different strategies to make my LMOOC more effective.				
Strongly Disagree/Disagree	0	Disagree: 0%	3.6	0.52
Agree/Strongly Agree	10	Agree: 100%		
I believe that the pedagogy that I chose for my LMOOC impacts its effectiveness.				
Strongly Disagree/Disagree	0	Disagree: 0%	3.3	0.48
Agree/Strongly Agree	10	Agree: 100%		
I believe that my role as an LMOOC instructor is essential to the success of the LMOOC.				

Strongly Disagree/Disagree	1	Disagree: 10%		
Agree/Strongly Agree	9	Agree: 90%	3.2	0.63
It is important in LMOOCs that instructors actively participate/engage in discussions.				
Strongly Disagree/Disagree	2	Disagree: 20%		
Agree/Strongly Agree	8	Agree: 80%	3.2	0.79
My previous training and teaching experiences allow me to teach my LMOOC more effectively.				
Strongly Disagree/Disagree	0	Disagree: 0%		
Agree/Strongly Agree	10	Agree: 100%	3.7	0.48

#### 4.2.1 Perceptions of Effectiveness of LMOOCs

As previously mentioned in the questionnaire, the majority of instructors agreed that LMOOCs were an effective way to learn a language. However, 40% disagreed that they were as effective in learning a language as compared to a traditional classroom. Instructors' confidence in the effectiveness of language learning in MOOCs by comparing them to the traditional or face-to-face classroom was evident in the excerpts by Instructor #3 below. This showed their view that LMOOCs were regarded as appropriate supplements for traditional classes if otherwise not available.

“students that are in university can benefit in a better way by direct classes in place of online classes. Here these online classes are useful too, no instruction is there, and everyone can join or learn from these classes, but it is more beneficial to the students that are not able to join university or direct classes.”

This particular instructor taught an LMOOC that did not strictly teach a language but had modules that taught phonetics and vocabulary for a language. They saw the merits of online

language learning if someone did not have access; however, they still believed that traditional classrooms were more beneficial. Instructor #2 shared this confidence in LMOOCs by stating that in certain situations where learners

“cannot attend face to face instruction, then the second best...with MOOCs, which are free, that are available online.”

They elaborate on this by saying that LMOOCs could be beneficial for those learners who were motivated.

“A Language MOOC is not just an online class, or is not just a regular language class, because it is not, it has other things to offer, it’s an option for those that, cannot attend face to face classes, of course in a teaching or learning situation in which the learners are motivated.”

Instructor #4 went on to say something very similar about the motivation of the learners. They not only discussed the differences but also the fact that MOOCs could be used for personal development:

“that’s one of the things I love about teaching a MOOC as opposed to a required course in an undergraduate setting, right? It’s that these students are here because they really want to be, they really want to learn the language.”

Although some instructors shared confidence in LMOOCs, as the first two instructors did, others seemed to like the idea of it as a possible alternative or addition. They shared their doubts on the effectiveness of it in comparison to a face to face language classroom. Instructor #1 stated:

“You’re working on your professional development in some capacity, but is it the same as getting a certificate from an accredited university? No. Is it the same as getting another degree? No.”

There was some comparison in that learners could make progressive strides towards their professional development and learn something. However, there was an implied lack of effectiveness compared to degrees supported by traditional language courses.

#### **4.2.2 Perceptions of Instructor Role**

Two statements that instructors were asked to rate their level of agreement with was their role as an instructor. These included how essential their role was to the success of their LMOOC and their level of active participation and engagement during the course. In the questionnaire 90% of the instructors agreed that their role was essential, while 80% agreed that they should be active participants. During the interview, when asked about their perceptions of their role as an LMOOC instructor, participants had varying responses. For example, Instructor #1 explained that while they felt that interaction in an LMOOC was necessary between peers and through their videos, ultimately:

“MOOCs are designed to be self-run. That supported the idea that it’s massive and open, massive open online course. You can’t really have an instructor present for something that’s massive and open. Especially when you’re broadcasting to the whole world.”

To further elaborate on the extent of their role within the LMOOC they described their process, which they adopted, after the course had finished being designed and began.

“I kind of felt after the course was let loose, I kind of felt like I had a role in just error revision, reading comments and making corrections. As far as interacting with students, no.”

Therefore, after the course is created the visibility of the instructor has to be “felt but other than that it’s not important.” Most importantly Instructor #1 made a distinction between being in the role of instructor and the role of the course designer.

“Well I don’t know if I can call it teaching, to be honest with you, because as a teacher, my real definition of teaching is something that I’m actively and consistently doing, my

online classes that are not MOOC, my teaching in my opinion consists of the feedback that I'm giving”

In contrast to this perspective the other instructors decided on more involved roles in two separate capacities. Instructor #3 was moderately involved through monitored electronic communication. They stressed that after they design the course their involvement and participation come from replying to emails which usually consists of clarification questions and inquiries about course content. As Instructor #3 reported having a somewhat smaller LMOOC in comparison to others this method seemed doable. While for larger LMOOCs, Instructor #2 had access to a larger team, with volunteers from their university, and therefore utilized this during the running of the course to make it more manageable. In order to support this statement, they elaborated on it by stating:

“it takes a lot of effort and time and what we do is, we assign roles so if I am the course instructor and I oversee the outline of the MOOC, the contents, the pedagogical progression, the communication tools, the activities, but then the way we've done it, I've facilitated very few and only like the general forums”

Instructor #4 said that they perceived themselves in the same facilitator role in the traditional classroom as online. Their focus was on facilitating learners to produce the language.

“I see myself as a facilitator, so I provide you with opportunities of communication.”

To maintain instructor to peer interaction it was found that filling various roles could assist in keeping the engagement up within a MOOC and effective teaching levels. It was then clear that while Instructor #1 didn't believe that the active role of an instructor was important to the effectiveness of the LMOOC, Instructors #2, #3, #4 believed that consistent involvement in varying degrees was essential to its success. All interviewed instructors believed that their role was important. However, the type of involvement, whether a facilitator or monitor, during the course varied. This was in line with the majority of the online questionnaire responses.

### 4.2.3 Perceptions of Strategies and Pedagogies

From the previous data of the online questionnaire 100% of instructors believed, with the majority of them strongly agreeing, that different strategies and pedagogies employed within the LMOOC platform influenced effective teaching. All responses for the strategy choices were tightly clustered and within one standard deviation of the mean. This was further apparent in the discussions on course design and content choices. Instructor #1 thought that course design was crucial, especially concerning what to provide learners with. These were important in deciding what choices to make in pedagogies and content related directly to improving engagement strategies. Here they emphasized the use of drills:

“I try to give instructions that they have to do with their body. Whether that's grabbing a piece of paper, saying certain words, saying we will be saying it together, then they say it alone.”

Instructor #1 clearly had the goal of interaction and participation in mind when designing and choosing content and strategies. Comparing this to their previous responses on the lack of importance of instructor involvement during the running of the LMOOC, there was a clear emphasis on course design rather than instruction. Finally, Instructor #4 specified their limitations on the modification of their curriculum:

“we couldn't really change the curriculum. We've changed the technological tools like for example, one of the things you have to do with the App is you have to have a recorded conversation and so we used VoiceThread in the beginning. We needed them to have a back and forth. VoiceThread didn't work as well. We used VoiceThread for that particular one and the feedback that we got just from all the learners having trouble with instructions...this wasn't working.”

So, while there were restrictions regarding the changing of the content the instructors were still mindful of the tools they used for activities and made appropriate modifications.

#### **4.2.4 Perceptions of Previous Teaching and Training**

Finally, there was also a need to communicate instructors' opinions on how they considered previous teaching and training experience regarding the effectiveness of teaching. Through the questionnaire, it was clear that 100% of instructors considered their previous training and teaching experience as beneficial. Further supporting this idea Instructor #1 stated that:

“You have to have teaching experience to know if your design is going to work or not. There's the trick. You have to have been a teacher, you have to have been, in my opinion, a good teacher, a reflective teacher, a teacher who thinks about how you perceive information, a teacher who has used visuals.”

Instructor #1 went on to state that the need to know how to use visuals was because the MOOC platform is entirely online; therefore, there was an emphasis on being able to have visuals on the screen that were relevant to the class. While all instructors stated that they had traditional teaching experience, 70% stated that they had informal training while 40% stated that they had formal training to teach online. Instructor #3 also made a point to say that they took a MOOC themselves to prepare to teach one. This supports the perception that training and experience are important in teaching LMOOCs.

#### **4.3 Challenges**

In the online questionnaire instructors were asked to select all the challenges they faced, while teaching their LMOOC(s), from a list. To further indicate and support the responses in the online questionnaire interview question number two was asked in order to gain LMOOC instructors' perceptions of disadvantages of LMOOCs (See Appendix II). Question six was also asked directly relating to challenges and specific instances of challenges faced while teaching LMOOCs. Again, there were relationships between the interview responses and the online

questionnaire responses. The results for the online questionnaire below gave a general overview of the challenges and were organized from highest frequency of response to lowest.

Table 4.7 List of Challenges

List of Challenges	Number of Responses (Frequency)
Learner retention/drop-out rate	6
Pedagogical choices/limits	5
Variation of learner's background knowledge/proficiency level	4
Engaging Learners	3
Course size (number of students)	2
Lack of Training	2
Weak instructional design of the course	1
Lack of technological awareness	1
Cultural differences of learners	0
Instructor and student roles/bond	0
Lack of support from organization/institution	0
Other	0

The top three challenges ranking from highest frequency rating to lowest from the questionnaire were learner retention/dropout rate (60%), pedagogical choices and limitations (50%), and the diversity of learners' backgrounds and proficiency levels (40%). There was also an open-ended question requesting that instructors list their top three challenges in teaching and rank them from most challenging (1) to least challenging (3). Again, this was to further create a focus on what instructors felt which challenges were most notable. The results can be seen in the table below.

Table 4.8 Rankings of Challenges

Instructor #	Most Challenging	Moderately Challenging	Least Challenging
A	We are teaching strangers	Many of those who register for the LMOOC are not interested in active participation and interaction	It is difficult to get back on track those that lose interest in the course.
B	Keeping students in the course	--	--
C	Lack of vocabulary	Can't progress time	--
D	Low target proficiency of learners.	Limitations of platform (couldn't make very interactive or interesting games, e.g.).	Volume of students (difficult to respond to technical problems or questions).
E	None	--	--
F	encouraging students to join the synchronous google hangouts	providing sufficient materials to support autonomous, self-access learning	catering for different educational backgrounds
G	Drop students	--	--
H	learners work at their own pace and can lose motivation	learners have no incentive to finish the course	learners may not have a high enough level of English
I	Students came with a variety of different learning goals	It is easy to drop out	The fact that it is free means that they take the course less seriously.
J	Student engagement	Assistance	Awareness about MOOCs

This open-ended question allowed the instructors to elaborate on their previous selection of challenges from a set list. The frequency of the list of challenges to the open-ended response was

compared and there were some similarities. One instructor reported that there were no challenges, while two other instructors filled in their most challenging section and left the rest blank. These results were consolidated into major “Challenge Themes” as seen below.

Table 4.9 Challenges Themes

“Challenges” Themes	Most Chall. Frequency	Moder. Chall. Frequency	Least Chall. Frequency	TOTAL FREQ.:
Diversity of Learners’ backgrounds and proficiency levels	4	0	3	7
Engagement/ Motivation	3	2	2	7
Pedagogical choices and limitations	0	3	0	3
Learner retention/dropout rate	2	1	0	3
Platform/ technical difficulties/support	0	1	1	2
None/No Response	1	3	4	8
<b>TOTAL:</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>30</b>

The main themes were diversity of learners’ backgrounds and proficiency, engagement and motivation, pedagogical choices and limitations, learner retention or dropout rate, and platform difficulties and support. The following sections will discuss the resulting themes from the online open-ended response questions and interviews.

#### 4.3.1 Diversity of Learners’ Background and Proficiency

For the open-ended response question the theme of “Diversity of Learners’ backgrounds and proficiency levels” was evident through comments such as “We are teaching strangers”, “Lack of Vocabulary”, “Low target proficiency of learners”, “Students came with a variety of

different learning goals”, “catering for different educational backgrounds”, “Learners may not have a high enough level of English”, and “Awareness of MOOCs”. These comments accounted for 40% of the “Most Challenging” listed and 30% of “Least Challenging”. This made sense as it also ranked third for most frequently chosen from the list of challenges.

For the interview, instructors described how the background and diversity of the students created a challenge when teaching in an LMOOC. Groups of learners, especially in massive amounts and on a global scale, increased the possibility of having language learners with different proficiency levels and learning styles. It was impossible to pinpoint one specific type of student within a MOOC. As Instructor #1 stated: “Everybody’s got different learning styles.” Aside from learning styles there was the simple fact that some MOOCs were created with specific learners in mind. Instructor #4 facilitated an LMOOC geared towards high schoolers taking AP courses; however, they had this to say:

“high schoolers are not the best audiences for MOOCs because high schoolers are just too busy with other things...and also with a MOOC you just never know who’s going to show up. It’s an offering and then people show up.”

So, while stakeholders tried to have an initial idea of LMOOC learners, the concept of MOOCs being massive and open made it likely impossible to do so. This was further supported by Instructor #2 who said that:

“We are teaching strangers really. We don’t know the people we are teaching. You have this ideal student in your head, but then once the MOOC is running actually you realize that profile that you had in your mind doesn’t necessarily correspond to the people taking the course.”

This demonstrated the fact that MOOCs are indeed massive, open, and online, with no one ideal student type and no, or limited, online interaction, ultimately making everyone strangers.

### 4.3.2 Lack of Engagement and Motivation

While the top three challenges from the previous list were stated here as well, there was much more emphasis in the comments made relating to Engagement/Motivation. Overall, engagement and motivation contributed to 30% of the “Most Challenging” category. Comments included: “encouraging students to join the synchronous google hangouts”, “learners work at their own pace and can lose motivation”, and “Student engagement”. Under “Moderately Challenging” comments made up 20% and included: “Many of those who register for the LMOOC are not interested in active participation and interaction” and “learners have no incentive to finish the course”. Finally, it occurred 20% of the time for “Least Challenging” with

“It is difficult to get back on track those that lose interest in the course” and “The fact that it is free means that they take the course less seriously”.

Many factors contributed to the high dropout rates for MOOCs according to the literature. One of the main factors associated with it is the lack of engagement. For the purpose of the interview data this researcher combined engagement with lack of communication and interaction as they were heavily tied together according to the interviewees. Instructor #1 had an interesting and challenging experience with how to engage their learners through the creation of their course:

“I want the screen to make me feel like I am in a classroom. I want the video to make me feel like I have to look at them and say and repeat them.”

“I want to feel like I was talked with. I’m being spoken with. That was my philosophy on that.”

Their goal was to visualize how possible communication would be viewed and if it would be effective and engaging for the learners. When brainstorming how to engage learners in such a platform all instructors agreed that approaches must be thoughtfully considered. Instructor #1 stated this fact through choices in content:

“They can’t work in groups, so I am not going to put them in groups. Let’s X out groups. Let’s X out jigsaw activities. Let’s X out all these communicative activities that I would have them doing. Let’s look at the presentation portion.”

They also stated the importance of getting learners involved by asking them to do physical activities such as getting a pen and paper to participate in activities. However, the challenge with attempting to engage students this way was as follows:

“How do you do that when you’re not face to face? You just trust. I am going to stand in an empty classroom and assume my ghost students are doing what I’m asking them to do. If they’re either just really bored with it, they don’t want to watch that video, just like in real life, if people are bored, they just don’t come to class, or they don’t do their homework.”

To add to this, certain engagement content was utilized by instructors but was not initially received well by learners. In a massive open online course, it is impossible for the instructor to give personalized feedback. As a result, peer feedback is implemented into the course. As stated by instructor #2:

“The other challenge is the written production and you cannot task them to write an essay as you would do in a face to face class in which you would have 20 students and you can give them personalized feedback.”

That same instructor also added to this with the common issue that peer revision activities are faced with in language classrooms.

“In the first MOOC...people were very reluctant to assess the work of their peers. So, we had loads of comments saying, “who am I to judge the work of others” or “why should I accept the feedback of others who know as much as me or even less?”

If the purpose of peer feedback was to get learners to interact and communicate with each other in the environment, then their lack of willingness to do so was keeping them from being engaged

and using their language skills. Other comments that reiterated the trial and error of engagement tasks were made by Instructor #4:

“How many people are engaged? Hard to know, I mean one thing I can tell is when I send an email there will be responses from students like doing the assignments. Sometimes I do get feedback. But I would say that that's the one thing that's hard to know. You don't get a lot of feedback from students, unless it's through the discussion forum”

The responses showed that the challenge of communication and engagement in MOOCs was between both the learners and instructors as well as peers. Whether through challenges of limitations due to an inability to make a task work in a massive and online environment or to monitor for engagement and communication it was difficult to know.

“For me in a language course it has to be, engagement is, ... I can ... communicate spontaneously in the language so that's more than taking a multiple choice or watching a video”

Instructor #4 was one of the few LMOOC instructors who emphasized on the importance of live sessions. These live communication events were optional and held three times a week on Zoom by Instructor #4 with the purpose of getting learners to “communicate in the language”. They went on to discuss how learners would continue to meet in Zoom groups every Sunday after the course ended.

### **4.3.3 Pedagogical Choices and Limitations**

The top three challenges chosen from the previous list pedagogical choices and limitations comments accounted for a total of 30% of “Moderately Challenging” responses. While the importance of content choice was highlighted in the questionnaire, two instructors reflected on when their choice was unsuccessful during the interview. For example, Instructor #3 retold a situation where their choice of content was recognized as not being successful. While

their LMOOC consisted of over 1,000 learners only 71 of them submitted their “descriptive assignment”. Instructor #2 also discussed their experience with ineffective choices in content:

“We had to make changes once the MOOC had started so instead of having this synchronized computer mediated communication, we had to change it to peer to peer activities in which the student would upload that oral tasks and then it would be corrected by their peers.”

Instructor #2 aspired to have synchronous communication but was unable to and so they switched to other activities. Both instructors recognized barriers and issues in their choices in or approaches to content. They made conscious decisions, through reflection, and thought about possible alternatives. This again considered the questionnaire responses and accentuated the importance of strategy choice.

#### **4.3.4 Learner Retention and Dropout rate**

The theme of “Learner retention/dropout rate” in the online questionnaire was shown through the comments “keeping students in the course”, “Drop Student”, “It is easy to drop out”, account for 20% of the “Most Challenging” and 10% of the “Moderately Challenging”. As noted from the literature and the previous responses, dropout rates for MOOCs in general are extremely high. The results of the interviews suggested that this may be attributed to the type of learner. While Instructor #1 briefly mentioned low completion rates, Instructor # 2 stressed that MOOCs have high dropout rates due to the fact that:

“online learning can be very lonely, and it needs a lot of self-motivation.”

Again instructor # 1 added a statement in their interview that supported this argument by stating the following:

“I would say that it takes a very special learner, a very motivated learner.”

So, the interesting aspect of this is that while dropout rates are a challenge for LMOOC instructors they attributed this to the level of learner motivation.

#### 4.3.5 Platform & Technical Limitations

The comment of “Limitations of platform (couldn't make very interactive or interesting games, e.g.)” in the open-ended response is very clear. This theme was once again supported by the interview data. All four interviewees mentioned their struggle with platform and/or technical limitations during the course design process. Instructor #3 stated that:

“We are bound to use the government portal. We do not have any alternative, that's why the limitations are of that portal.”

To continue describing the limitations of the platform challenges Instructor #3 went through the process of course design and the difficulties associated with it and the platform. They stated that the course must be designed and reviewed before the course begins and then cannot be changed afterwards.

“I cannot record now, I cannot edit myself, I can reply [to] emails, I can reply to emails only, that's my limitation.”

The Instructor #2 discussed the restrictions related to the massiveness of the LMOOC and the technical constraints of the platform. They stated the following two reasons for the challenges:

“We had envisioned to do synchronized like oral practice and we couldn't do that with 40,000 [learners] because our technicians said that the server wouldn't be able to cope with it.”

Specifically relating to language learning in an LMOOC they stated that:

“The biggest challenge is oral production and I still haven't found a tool that is embedded in the system.”

While this was a pedagogical challenge as well it was completely reliant on the fact that the technology was limited in providing the opportunity for the oral activity that the participant wanted to implement. Instructor #4 tied technical issues and pedagogical concerns together even more citing limitations in the platform.

“The biggest challenge was more the technology and working with technologists who maybe didn’t understand much pedagogy.”

“There were a lot of no-no’s, like no we can’t do that, but I was like this is a language course we have to do that”

Again, this confirmed that platform and technological issues have a ripple effect on the content allowed and the pedagogical approaches and methods that language teaching use within the MOOC environment.

#### **4.3.6 Challenges of the Instructor Role**

Finally, according to the results of the interviews, the last theme discussed in challenges of the interviews included the role of the instructor. As previously discussed in the perceptions section each instructor had their own idea of what their role should be and to what degree. Some instructors felt more like facilitators or course designers, instead of an instructor or teacher. As instructor #2 explained:

“We had to learn very fast how to organize the different threads in the forum, how to have the facilitators, the forum moderators produce certain facts, ask questions so that would take a burden off so they could go and check all those doubts that they generally had you know were already answered.”

So, there is a need to designate instructor roles and understand how they are essential, or not, to MOOCs. While some instructors didn’t mention challenges directly associated with their role as an instructor, others struggled with the notion that their involvement was limited as they were not able to traditionally instruct. According to instructor #1:

“Because I am not giving a lecture that’s synchronous, you don’t feel like you're doing much teaching.”

In this statement there was a clear idea of the instructor role that they wanted to perform, yet this was very difficult to do under certain instances. Such instances included the huge numbers of

learners, which may prevent them from holding synchronized sessions and having personal interaction.

#### **4.4 Conclusion**

The engagement strategies section and the data collection methods used included two sections of the online questionnaire, selection from a list of strategies and an open-ended response. The results of this were: visuals, discussion forums, study aids such as practice quizzes, and instructor material such as video lectures. The overarching themes deduced from the open-ended response resulted in content/activities, giving feedback/peer feedback, discussions, reminder of content/progress, instructor role, and other. This not only corresponded with the previous selections but also expanded on them. To further elaborate on the results from this, interviews were conducted with LMOOC instructors. Two major themes were noted, interactions and participation as well as content. Again, these were broad categories that encompassed almost all of the aforementioned results. Finally, content analysis was performed to further validate the results. Again, the results corresponded to the other data analysis tools. The strategies that were involved in the teaching of all LMOOCs were: encouraging learners to participate in discussion forums, study materials to include practice quizzes, instructor material, and readings. The second research question on instructors' perceptions of effective teaching was answered through the online questionnaire and interviews. These resulted in the majority of instructors agreeing or strongly agreeing with each statement. They perceived their role as an instructor and the pedagogies and content they chose to be important to the effectiveness of their LMOOC. Overall, they perceived LMOOCs to be effective, yet not as effective as a traditional language classroom. This was again supported by the interview results. To summarize the third research question on challenges LMOOC instructors faced when teaching is supported by the online questionnaire and interviews with instructors. The most common challenges that were supported by both the online questionnaires and the instructor interviews were: dropout rate, pedagogical and platform

limitations, variation of learners' background and proficiency level, and engagement of learners. Each one is closely linked to the uniqueness of the MOOC platform. Whether due to the informal type of learning space, the technical interference, change of instructor role, or the vastness and individuality of the learner type; each theme was closely related to potential challenges instructors face.

## **CHAPTER 5 DISCUSSION**

### **5. Introduction**

The current research study focused on three research questions. The first question considered the strategies LMOOC instructors used to enhance learner engagement. The second explored how LMOOC instructors perceived effective teaching. The third question pertained to the challenges they may face while teaching. This research study analyzed these three themes using an online questionnaire, interviews, and content analysis. Both the online questionnaire and interviews assisted in exploring all three of the research questions. Finally, to further ensure the accuracy and validity of the engagement strategies that instructors utilized in their courses a content analysis of top rated LMOOCs was conducted. These courses were on a variety of popular MOOC platforms and taught three different languages. This chapter presents the discussion of results, implication of findings, and suggestions for further research.

### **5.1 Discussion of Results**

#### **5.1.1 Engagement Strategies**

The questionnaire and content analysis concluded that the top three engagement strategies were: visuals, discussion forums, and study aids. The interviews corroborated these findings with broader categorized themes of interactions, participation, and content. As Miyazoe stated “course features are commonly present in many other MOOC platforms; in addition, interactive components, engagement strategies, internationalization, and portability for practice of” course design “are critical in supporting and realizing language acquisition” (2017, p. 2). Previous research has shown that participation and engagement levels drop after the first two weeks of a course (Cassidy, Breakwell & Bailey, 2014). Course design and content such as engaging discussions and visuals are listed throughout the literature concerning engagement in MOOCs (Carr, 2014; Motzo & Proudfoot, 2017; Sokolik, 2014). These engagement strategies were all supported by the results of this study. However, there were strategies mentioned in the

literature which the results did not support. For instance, gamification was discussed but many LMOOC instructors said that they rarely utilized games, simulations, or virtual worlds. The other least commonly used engagement strategies included strategies that required smaller numbers of people or high coordination such as live events. These included local meetups, live events, and vlogs or blogs respectively. While most of the instructors expressed interest in finding more interactive tools to enhance engagement, they also found limitations in the platforms. What was quite surprising is that the literature stated that engagement and dropout rates were mentioned as major factors that influenced MOOC success. While instructors did list dropout rates as a challenging factor only a few listed engagement. While engagement was still moderately considered as a challenge it did not rank as concerning as previously thought.

### **5.1.2 Instructors' Perceptions**

The results from both the online questionnaire and the interviews showed that LMOOC instructors perceived LMOOCs as an effective means in learning a language. Overall, the average number of disagreements with aspects leading to effectiveness of teaching LMOOCs was 11.25%; while the average for the number of agreements was 88.75%. This means that instructors found each aspect as overwhelmingly beneficial towards effective teaching. For example, all agreed that their previous training and teaching experiences allowed them to teach their LMOOC more effectively. This aligned with a study that explained that teachers who are more knowledgeable of technology tend to use it more and feel more comfortable with it (Kassem, 2018). Also, all instructors agreed that the type of pedagogy and strategies they used within their course impacted the effectiveness of it. According to the results of the questionnaire 100% of LMOOC instructors agreed that it was important to use different strategies and all agreed that their choice in pedagogy impacted the effectiveness of it. By far the most disagreement came from the belief that LMOOCs were just as effective in learning a language as

traditional, face-to-face, courses at 40%. This may be because traditional classrooms allow for constant and instantaneous interaction (Sun, 2011).

According to the literature on LMOOCs this researcher deduced that the most important and influential characteristics of LMOOC instructors' perceptions of effective teaching included the role of the instructor and course design and content. Instructors needed to determine which role they would be in while teaching an LMOOC. Due to the massiveness of the online platform much of the literature has explored how important the role is. Some mention the part they play in determining content creation and instruction (Kebritchi, Lipschuetz & Santiago, 2017), while others discuss the importance of instructor visibility (Sokolik, 2014). According to the results of the questionnaire 90% of instructors agreed that the instructors' role was crucial to the effectiveness of their LMOOC. The majority of the instructors during the interview stated the same by being active participants throughout the course running. As Sokolik states: "instructor presence is important (though perhaps not necessary) to help build community" (2014, p. 22). Only one emphasized the importance of starting out with a solid course design with a hands-off approach later on. Both of these results corresponded with the previous literature's emphasis on instructor role, whether through design or participation during the course.

Instructors were asked about how course and content design were regarded as influencing the successfulness of their teaching. The literature supported this by stating that the course design of a MOOC affected instructor choice in pedagogy and content (Zhu, Bonk & Sari, 2018). The TPACK framework also includes knowledge of content as one of its key components (Koehler & Stickler, 2009). The online questionnaire resulted in all participants agreeing or strongly agreeing with the use of different strategies and pedagogies helping to determine effective teaching. The response to the interview on content aligned with these results by highlighting the importance of types of tasks, activities, and assignments. They also explained that once the course was designed and approved by their platform, they were unable to make

changes during the running of the course. However, they were able to use the learner analytics later on to make changes for the next running. One participant mentioned that being reflective and aware of limitations while teaching was important. Again this was stated in the literature through a case study where the instructor of the MOOC used learner feedback to make changes in the course content in order to improve engagement (Carr, 2014). Suggestions for the “developing, designing, and teaching of a MOOC for English language learners” (Sokolik, 2014, p. 21) should come from trial and error.

### **5.1.3 Challenges**

The literature stated that dropout rates, content quality, role of instructor, engagement and motivation were notable challenges for MOOCs (Cassidy, Breakwell & Bailey, 2014; McMinn, 2017; Albelbisi, Salleh & Yusop, 2018). The results of this study included all of these in both the provided list of challenges as well as the open-ended response and interview responses. For example, the dropout rate was rated as the most frequent challenge in the list section and it was number four in the interview responses. Also, specifically relating to LMOOCs, previous studies indicated that there were issues related to language and cultural differences (Zhang, Bonk, Reeves & Reynolds, 2019). While language proficiency and variety of learner background were deemed to be a concern for LMOOC instructors, no participants chose culture from the list of challenges. According to Sallam, Martín-Monje and Li the main challenge that is specific to LMOOCs, and language learning in general, “seems to be the fact that language learning is skill-based, which means that the path to proficiency entails substantial practice and interaction” (2020, p. 21). This challenge, along with the general background of learners, were listed among the themes of the interview results. It seemed that the engagement strategies used by instructors are closely linked to how they attempted to overcome challenges. For example, the instructors of one course, that was included in the content analysis, provided two different proficiency levels

for the readings as options for learners. Therefore, while most of the data was substantiated by the results of this study concerning challenges, some were not, such as cultural backgrounds.

## **5.2 Implications of Findings**

Based on the results of this study the implications of findings indicated that LMOOCs are a unique platform where the instructor plays an important role as both facilitator and designer. It is valuable to take instructors' perceptions under consideration as they are able to observe the challenges that occur and, through the designing of the course, choose the appropriate content and activities for learners. Although some instructors stated that they were unable to make changes during the time their LMOOC was active they were able to make changes based on their evaluation of learner feedback before their next course offering. A major implication of this study was also due to the stress on the importance of instructors' perceptions and their role within a MOOC. For example, it may provide insight and guidance for other instructors and their decisions in LMOOC design to proactively combat the common challenges of MOOCs. It may therefore also assist them in designing any future MOOCs. Trends for LMOOCs concluded that a little over 22% of research papers are from the perspective of the instructors or course creators (Sallam, Martin-Monje & Li, 2020). Despite this percentage being extremely low there are many studies that exist regarding the importance of instructors' roles in MOOCs. Therefore, it makes sense that their perceptions be taken into account. The existing literature on LMOOCs in general was also limited. Finally, due to the current Coronavirus pandemic this year, and the shift to online teaching, two instructors mentioned additional information during the interview process regarding other instructors approaching them about online teaching. In response, one offered a workshop to their colleagues for online teaching. This may potentially be an untapped area into online education and emergency contingency plans and LMOOCs role in them. According to two different papers published in March 2020 teachers in China have been instructed to draw "online teaching resources such as those on MOOCs" (Zhang, Wang, Yang & Wang, 2020, p. 3)

and potentially utilize MOOCs in general to help increase learning flexibility during the educational disruption (Huang, Liu, Tlili, Yang & Wang, 2020). As this paper has covered research into engagement strategies used and major challenges within LMOOCs it may help better prepare instructors and educational policy makers of future course offerings. This research paper has ultimately contributed to the lack of studies on LMOOCs, coverage of instructors' perceptions literature, and potential future influences of LMOOCs on the current online education situation.

### **5.3 Limitations of the Study**

In spite of the importance of the implications of these findings there were some limitations to this research study. It was the goal of this researcher to provide results that were easily representative of the majority of the LMOOC instructors. However, due to lack of online questionnaire responses the participant sample size was smaller than anticipated. Initially inferential statistics were to be applied to the data, but as the sample size was small it was ultimately disregarded. As the data collection process was extended due to the lack of responses, the planned timeline for data collection was disrupted. Finally, as some MOOCs follow a specific timeframe and the content is not released by the instructor until the designated week, it is suggested that content analysis be performed towards the end of the LMOOC in order to have access to all the content.

### **5.4 Suggestions for further research**

While this study had a focus on challenges of teaching in an LMOOC, it is suggested that further studies focus more in depth on the total process that MOOC instructors carry out. For example, during the interview process most instructors mentioned struggles with the MOOC platforms themselves regarding technical issues during the process of course design. While these proved to be a recurring theme it was not expected as being a challenge in the actual process of teaching an LMOOC. Thus, this is one area that received a lot of the attention as problematic

from instructor responses and may benefit from future research. Also, to be considered is the role of the instructor. As previously stated in this study instructors can be facilitators, moderators, and course designers. In these positions emphasis on instructors' reflection may benefit the teaching and designing of MOOCs, including LMOOCs, in the future. This is because the reflection process “is more than merely thinking about one’s instruction. It is a purposeful act that begins with a problem context or episode, defines/redefines the problem, seeks possible solutions, experiments with solutions, and finally evaluates the results” (Murray, 2015, p. 23). Also, as previously mentioned the participant sample size was much smaller than anticipated and so therefore it is recommended that future sample sizes include more participants. With the positive results in instructors’ perceptions of LMOOC overall effectiveness and the suggestions to use them during this massive switch to online teaching it may be valuable for further research in this area.

## **5.5 Conclusion**

There is an ever-evolving impact that technology and educational resources have on language learning. The evolution of the so-called traditional language learning classroom has progressed from tools in the classroom to the shift of the entire classroom into various forms of the online universe and everything in between. The concept of MOOCs has proven to be extremely beneficial for the global populace while simultaneously presenting challenges. Some of these challenges were related to the massiveness of the open online platform. This was especially seen by instructors who had difficulty in translating and incorporating their traditional classroom strategies to the MOOC platform. These trials and tribulations were found to stem from limitations of the platforms with all of the instructors citing previous issues or current restrictions relating to what they aimed to do pedagogically in the course versus what they could do technically. Regardless of the type of classroom, instructors are essential parts in the process of teaching and designing of course content. Ultimately, instructors create and make decisions on

what they will incorporate within their course. They do this by determining their own individual perspective on what effective teaching means in this unique platform. These decisions do not come lightly and require some reflection and contemplation of strategy.

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## Appendix I Questionnaire

As previously stated, this survey combines the questionnaires and interviews as used by Crues, Bosch, Perry, Angrave, Shaik & Bhat (2018), Evans & Myrick (2015), Lin (2017) and Martin (2017).

Part 1: Demographics and Background information (Note: There are 3 parts to this survey)

- 1) Your age range is:
  - a) Under 18 years of age
  - b) 18-25 years old
  - c) 26-35 years old
  - d) 36-45 years old
  - e) 46-55 years old
  - f) 56-65 years old
  - g) 66 years old or over
  
- 2) How many LMOOCs have you taught (including any that you are currently teaching)?
  - a) 1
  - b) 2
  - c) 3
  - d) 4 or more
  
- 3) How many people are enrolled in your most recent LMOOC?
  - a) Less than 5,000
  - b) 5,001-10,000
  - c) 10,001-15,000
  - d) 15,001-20,000
  - e) More than 20,000
  
- 4) How many people completed your most recent LMOOC?
  - f) Less than 5,000
  - g) 5,001-10,000
  - h) 10,001-15,000
  - i) 15,001-20,000
  - j) More than 20,000
  
- 5) What is the length of your current LMOOC?
  - a) Less than 1 week
  - b) 1 – 3 weeks
  - c) 4 – 6 weeks
  - d) 7 – 9 weeks
  - e) 10 weeks +
  
- 6) What is the delivery format of your most recent LMOOC? [Select all that apply]
  - a) Instructor led with teaching assistants, moderators, and/or tutor support
  - b) Instructor led with no additional teaching support
  - c) Primarily learner/participant driven (i.e., cMOOC)

- d) Self-paced
  - e) Hybrid or blended type of MOOC
  - f) Other (Please describe): \_\_\_\_\_
- 7) How much traditional or face-to-face teaching experience do you have in teaching a language?
- a) 0-1 years
  - b) 2-3 years
  - c) 4-19 years
  - d) 20+ years
- 8) How much online teaching experience do you have in teaching LMOOCs?
- a) 0-2 years
  - b) 3-5 years
  - c) 6-9 years
  - d) 10+ years
- 9) Have you taken an online course yourself? (For the purposes of this survey online courses will include webinars, 100% university-based online courses, hybrid courses and MOOCs).
- a. Yes
  - b. No
- 10) If you answered “yes” to question number 8 – What model(s) of online courses have you taken? [Select all that apply].
- a) 100% online course offered by a college and university.
  - b) Massive Open Online Courses (MOOCs).
  - c) Hybrid course – 50% of the course is online, while the other 50% regularly meets face-to-face.
  - d) Webinar – live online educational presentation.
  - e) Other – please explain.
- 10) Have you previously received any formal training (e.g. course work and/or workshops) in teaching online courses?
- a. Yes b. No
- 11) Have you had access to any informal training (e.g. peer coaching and/or support) in teaching online courses?
- a. Yes b. No

## Part 2: Perceptions, Challenges, and Engagement Strategies

- 12) How is student progress/participation monitored or tracked? [Select all that apply]
- a) Not applicable (learner progress is not monitored or tracked in this MOOC)
  - b) Moderator, tutor, or teaching assistant’s feedback
  - c) Modular or unit-based progress
  - d) Peer or group member reports
  - e) Personal tracking from instructor
  - f) Personal tracking from tutors, moderators, and teaching assistants
  - g) Self-monitoring and self-evaluation
  - h) Weekly or daily reports offered by learning analytics
  - i) Other (Please describe): \_\_\_\_\_

13) What challenges did you face while teaching an LMOOC? [Select all that apply]

- a) Engaging learners
- b) Learner retention/drop-out rate
- c) Course size (number of students)
- d) Pedagogical choices/limits
- e) Weak instructional design of the course
- f) Variation of learner's background knowledge of language/proficiency level
- g) Instructor and student roles/bond
- h) Cultural differences of learners
- i) Lack of training
- j) Lack of support from organization/institution
- k) Lack of technological awareness
- l) Other (Please describe): \_\_\_\_\_

Please rate your agreement/disagreement with the statements below about LMOOCs and general beliefs about them.

	Strongly disagree	Disagree	Agree	Strongly agree	N/A
Overall, I believe that LMOOCs are effective for learning a language.					
I believe that LMOOCs are just as effective in learning a language as traditional or face-to-face classrooms.					
I believe that student engagement is essential for an effective LMOOC.					
I believe that it is important to use different strategies to make my LMOOC more effective.					
I believe that the pedagogy that I chose for my LMOOC impacts its effectiveness.					
I believe that my role as an LMOOC instructor is essential to the success of the LMOOC.					
It is important in LMOOCs that instructors actively participate/engage in discussions.					
My previous training and teaching experiences allow me to teach my LMOOC more effectively.					

Other (optional):					
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Please rate the statements based on how often you use the resources/strategies in your LMOOC to enhance student engagement.

I .....to increase student engagement.	Very Often	Often	Sometimes	Rarely	Never
Use visuals (e.g., concept maps, diagrams, flowcharts, timelines, etc.), animations or interactive contents					
Encourage students to contribute to the discussion forums or threads					
Offer or encouraging breakout discussion forums or groups					
Include study aids (study guides, Practice quizzes and exams etc.)					
Include instructor material (lecture notes, PowerPoint and other presentation slides, Video lectures and tutorials etc.)					
Encourage student collaboration by assigning peer work or peer reviews and/or use collaboration documents (Google docs, wiki docs etc.)					
Assign or encourage learner blogs / vlogs/ journals					
Utilize mobile applications					
Include popular media (e.g., news stories and videos, podcasts)					
Incorporate live events (Virtual conferences and summits)					

Provide readings (including textbooks, literature, and scientific and technical reports)					
Use Simulations and games / gamification / virtual worlds					
Social media (e.g., Facebook, Instagram, Snapchat, Twitter, Pinterest, etc.)					
Video examples (e.g., TED talks, YouTube, etc.)					
Encourage students to be involved in authentic projects					
Incorporate expert interviews into the lesson					
Hold synchronous lectures, meetings, and events (e.g., Skype, Google Hangouts, Zoom, etc.)					
Arrange or encourage local meetups					
Provide options with assignments					
Other (fill in the blank – optional):					

### Part 3: Open-Ended Items

What are the three most important strategies you considered when teaching to enhance student engagement? Please rank them from 1 (most important) to 3 (least important).

What are the top three challenges that you encountered when teaching your LMOOC? Please rank them from 1 (most challenging) to 3 (least challenging).

Would you be willing to participate in a follow-up interview?

If you reply yes, please provide your email address in the question above. If you are selected, you will receive an email with further instructions. These 20-minute interviews are conducted online and scheduled based on your convenience. [Yes/No]

## Appendix II The Interview

The interview questions were adapted and modified from Lin (2017) and Zhu, Bonk & Sari, 2018.

1. The interview will be audio recorded with your permission.
2. Efforts will be made to keep the information you provide to us confidential.
3. The duration of the interview will be approximately 30 minutes. Member-checking email might be sent to you for clarification about the interview.
4. The participation is voluntary. Feel free to stop the interview if you are uncomfortable with any question. (Zhu, Bonk & Sair, 2018, p. 240)

- 1) Can you please introduce yourself, in particular your previous online teaching? experiences before LMOOCs?
- 2) Can you describe your overall understanding of Language Massive Open Online Course (LMOOC)? [characteristics, advantages and disadvantages].
- 3) Why did you decide to offer a LMOOC and what were the main motivations of such a decision?
- 4) How do you perceive your role as an LMOOC instructor?
- 5) How do you describe your approach to teaching?
- 6) Can you discuss challenges you experienced as a LMOOC instructor?  
Were there any special or significant moments that stick out?  
What was unexpected? What is critical that other LMOOC instructors might want to think about?
- 7) In your opinion, what do you consider as effective teaching in LMOOCs?
- 8) From a pedagogical perspective, what teaching approaches or strategies have you used to help enhance student engagement in your LMOOC(s)?  
How would you describe engagement in your classes?  
Why did you choose the content, resources, tools, and materials for your LMOOCs?  
What kind of activities/tasks do use for your LMOOCs?
- 9) Can you talk about the learning analytics or learner feedback in your LMOOC(s)? [E.g., availability of such learning data to instructor(s), influence on the LMOOC(s), utilization by the instructor(s), etc.]  
  
How did you use this data?
- 10) What new activities or resources might you try to employ next time? Is there anything unique or highly creative in mind?
- 11) What suggestions do you have to further improve teaching LMOOCs?

Appendix III  
Consent Form

Instructor Perceptions and Strategies Utilized in LMOOCs to Enhance Learner Engagement  
Documentation of Informed Consent for Participation in Research Study

Project Title: LMOOC Instructor Perceptions on Effective Online Teaching and Strategies Utilized in LMOOCs to Enhance Learner Engagement

Principal Investigator: Sara Matlack

\*You are being asked to participate in a research study. The purpose of the research is to gain insight on how you, as instructors, perceive effective online teaching of an LMOOC, challenges you face in teaching an LMOOC, and strategies you use to enhance learner engagement. The findings of this research may be both published and presented. The expected duration of your participation is approximately 20 minutes.

\*The procedure of the research will begin with the dispensing of a three-section online questionnaire to you, as current LMOOC instructors, via email. The last question on the questionnaire will ask if you would like to be contacted for an online interview. If you choose to be contacted for an interview you will be contacted via email in order to set up an appropriate meeting time. Interviews will be conducted online. The interviews will be audio recorded and transcribed. Estimated time for the interviews will be 20 – 30 minutes.

\*There will be no certain risks or discomforts associated with this research.

\*There will be no benefits to you from this research.

\*The information you provide for purposes of this research is confidential. All collected data will be stored on a password protected computer. Data will be coded, and names will be disregarded.

If you have any questions regarding this research project or your rights as a participant, please contact me at [smatlack@aucegypt.edu](mailto:smatlack@aucegypt.edu) or +20 106 352 6172.

\*Participation in this study is voluntary. Refusal to participate will involve no penalty or loss of benefits to which you are otherwise entitled. You may discontinue participation at any time without penalty or the loss of benefits to which you are otherwise entitled.

By clicking next, you agree that you have read and understood the information included in this form and agree to participate in this study.