

## MOOCs and Chinese Language Education (慕课与对外汉语教学)

Chin-Hsi Lin  
(林金錫)  
Michigan State University  
(密西根州立大学)  
chinhsi@msu.edu

Zhang, Yining  
(张亦凝)  
Michigan State University  
(密西根州立大学)  
zhangy58@msu.edu

**Abstract:** Massive Open Online Courses (MOOCs) are a powerful new trend in distance education. Unlike traditional courses, the number of students enrolled in a MOOC is usually more than 10,000. This new mode of teaching represents various opportunities and challenges for teachers of Chinese as a foreign language who are interested in exploring this new mode. This article has five main sections. The first will introduce MOOCs, and the second will introduce the classification of MOOCs. The third section will cover the characteristics of MOOCs, and the fourth will introduce several MOOCs related to Chinese language education. The last section will demonstrate how Google Classroom can be used to develop your own MOOC.

**摘要:** 慕课(MOOCs)是大型开放式在线课程,是远程教育的新趋势。与传统课程不同,一门慕课的学生人数通常在万人以上。这种新形态的教学模式为对外汉语教学带来了机遇与挑战。本文分五大部分,第一部分介绍慕课,第二部分介绍慕课的分类,第三部分为慕课的特色,第四部分介绍当前慕课在对外汉语教学上的应用,第五部分则是示范如何用谷歌教室建立自己的慕课。

**Keywords:** MOOCs, distance education, online learning, Google Classroom, educational technology

**关键词:** 慕课, 在线教育, 远程教育, 谷歌教室, 教育技术

### 1. Introduction

Massive Open Online Courses (MOOCs) represent an important new trend in education. The New York Times labeled 2012 as “year of the MOOC” (Morrison, 2013), and Horizon Report predicts that MOOCs will be a key technology trend of the next few years (Johnson, Adams Becker, Estrada, & Freeman, 2014). This is the first time in history that enrollment in a class has been available, not to a small number of students, but in theory to the entire proportion of the population that has access to the Internet

(Shah, 2013). However, before talking about how MOOCs may impact education, we first need to understand what MOOCs entail.

The first component of the MOOC acronym, *massive*, refers to its inspiring capacity to educate “masses” of people – enabling hundreds of thousands of participants to work on the same learning content simultaneously. When Stanford University offered a free online course on Artificial Intelligence, 58,000 people signed up (Daniel, 2012), and similar numbers are not uncommon for MOOCs.

The second and third components of MOOC, *open* and *online*, indicate that people can take the course from anywhere in the world for free, provided only that they have a valid email account and a connection to the Internet. There are no traditional enrollment criteria: as long as they have a desire to learn, people with any educational background can participate. Lastly, *course* means that MOOCs follow the traditional concept of a course with respect to time-sensitiveness and specific learning goals. In addition, as an online course, a MOOC contains asynchronous features. A learning platform, together with discussion forums and other external resources, are among the usual basic elements of MOOC classes.

It has been only six years since the first MOOC course, Connectivism and Connective Knowledge (CCK08), was launched by two Canadian educators, Stephen Downes and George Siemens. More than 2,000 students enrolled in the class when it was first offered in 2008 (Morrison, 2013). Dave Cormier, another Canadian educator, named this type of emergent educational format as a MOOC. After relatively modest growth in the first four years, the number of MOOCs offered surged substantially, from around 100 in 2012 to 1,200 at the end of 2013 (Shah, 2013).

With the exploding numbers of MOOCs on offer, the number of people enrolled in them has increased exponentially: from approximately 300,000 students to more than 1.5 million in the first half of 2012 alone, largely thanks to the appearance of new MOOC platforms such as Coursera, EdX, and Udacity (Kolowich, 2012). Since then, the rate of increase has been even faster. Coursera served more than 7.5 million learners around the world as of May 2014 (Ng, 2014), and EdX had more than 3 million users in October 2014 (Anderson, 2014).

Although originating in North America, MOOCs have sprouted quickly around the world. Asia’s first MOOC was a class called Science, Technology and Society in China, organized by Naubahar Sharif at Hong Kong University; originally estimated as having 8,000-10,000 students registered, it turned out to have 17,000 (Sharma, 2013). In 2013, Tsinghua University launched the first MOOC platform in China, XuetangX (学堂在线, <http://www.xuetangx.com/>). The University of Tokyo has recently signed an agreement with Coursera to develop several MOOCs in the near future (Fukuhara, 2014).

The MOOC phenomenon has attracted a great deal of attention from observers of educational trends, as well as from individuals who are interested in receiving quality education regardless of their place of residence, sex, age, income, or educational level.

MOOCs are increasingly regarded as an educational revolution that may redefine both how teachers convey knowledge and how students obtain it.

Despite the glare of so much attention suddenly focused on MOOCs, the concept of open online education is not as revolutionary or original as it may seem. In a sense, MOOCs simply combine two widespread pre-existing phenomena: online learning and open education. The former has been growing since the beginning of the century, and numerous studies have compared its effectiveness to that of traditional education (e.g., Means, Toyama, Murphy, Bakia, & Jones, 2010; Tallent-Runnels et al., 2006; Zhao, Lei, Yan, Lai, & Tan, 2005). Open education is not a new concept either, and examples of it include MIT OpenCourseware (<http://ocw.mit.edu/index.htm>) and iTunes U (<https://www.apple.com/education/ipad/itunes-u/>).

## 2. Classification of MOOCs

The first MOOC was quite different from the ones offered on Coursera nowadays. In fact, there are two pedagogically distinct types of MOOCs: cMOOCs and xMOOCs (Kay, Reimann, Diebold, & Kummerfeld, 2013), with the original offerings having been cMOOCs. Indeed, these subtypes are so different that it is increasingly confusing to refer to both of them under the umbrella term “MOOCs” at all (Hill, 2014). cMOOCs encourage students to navigate learning resources by themselves, and to create their own learning materials in a connected and non-linear manner (Lungton, 2012). They are asked to make contributions to the group by constructing knowledge through social media; the course instructor then collects the knowledge constructed in the network and shares it with learners through class email. As such, learners are expected to expand their horizons through exploring the knowledge built up by their peers (Morrison, 2013). In short, cMOOCs are discursive communities whose members create knowledge jointly (Siemens, 2012).

xMOOCs, which are now more popular than cMOOCs, are characterized by even larger enrollment numbers and the involvement of top educators in prestigious universities. Unlike cMOOCs, with their belief in the joint construction of knowledge, xMOOCs simulate a traditional pedagogical model in which learners acquire content through watching short lecture videos, reading learning materials, completing assignments, discussing content with other learners or teaching assistants, and evaluating others’ work. In other words, the primary goal for xMOOCs is knowledge transfer via short lectures, task-based projects, group discussions, and traditional assessments. xMOOCs meet the needs of a large number of learners who are looking for academic, content-based instruction in a particular discipline.

Since MOOCs became popular, many providers have emerged. The major ones are Coursera (<https://www.coursera.org/>), EdX (<https://www.edx.org/>), and Udacity (<https://www.udacity.com/>). Most current learners’ MOOC experience will have started with one of these three platforms, and the majority of the courses offered by all three of these providers are xMOOCs. Coursera, founded by Stanford professors Andrew Ng and Daphne Koller, has over 660 courses, of which approximately 85 are active at any given

time. EdX is a joint initiative by the Massachusetts Institute of Technology and Harvard University; launched in December 2012, it has more than 170 courses, of which 25-30 at a time are active. Udacity was founded by Sebastian Thrun, David Stavens, and Mike Sokolsky. Unlike Coursera and EdX, Udacity is a for-profit organization, and lists around 40 active courses in its website catalog. In terms of content, Coursera and EdX offer almost as wide a variety of subjects as any university, whereas Udacity is more specialized in in-depth computer science classes (McGuire, 2014).

### **3. Characteristics of MOOCs**

A recent study by Bali (2014) reported on the author's personal experience of attending four different xMOOCs, including weekly lectures or shortened mini lectures, weekly quizzes with automatic feedback, discussion forums, and peer-reviewed assignments. This data can provide us with a good general understanding of what characteristics and components MOOCs normally have.

#### **3.1 Course Materials**

All of the courses Bali (2014) enrolled in included weekly video mini-lectures, which were the primary method of content delivery. Some courses provided accompanying downloadable slides, and some provided optional textbooks or readings. Some courses offered assessment within the video lectures, requiring learners to answer correctly in order to continue watching the video.

#### **3.2 Discussion Forums**

Due to the large number of students enrolled in MOOCs, instructors are not able to have deep, individual conversations with each one. Therefore, many MOOCs utilize discussion forums to facilitate knowledge exchange. Students can raise task-related questions on the forum, but they do not have to. Engaging in or simply observing dialogue on forums can also lead to the learning of content, sometimes including content not formally covered by the course (Clinnin, 2014).

One thing Bali (2014) specifically highlights is teacher presence. Most of the MOOCs she studied attempted to integrate discussion forums into the course, but faculty and student participation in the forum was very limited. Some instructors explicitly encouraged students to utilize discussion forums as a primary resource for sharing notes, helping each other, or discussing topics related to class content, though none of the discussion forums were frequently visited by instructors.

#### **3.3 Feedback**

MOOC learners receive feedback from three main sources: computer-graded quizzes, peers, and instructors. The first type of feedback is usually simple, immediate, and direct, with answers being marked "correct" or "incorrect" by computers immediately after the student clicks the submit button on the quiz. Often an extended explanation is provided after the incorrect answer, to help students understand the

mistakes they have made. However, this type of feedback lacks genuine interaction and is not able to target the specific problems of each individual. Moreover, it is only appropriate for yes/no question or multiple-choice questions, and not ones that are intended to provoke elaborate, thoughtful or reflective answers.

The second type of feedback, peer review, is believed to be a key feature that distinguishes MOOCs from traditional learning. A report by Kolowich (2013c) has suggested that around 24% of MOOC instructors set assignments that are either peer-reviewed or peer-assessed. Peer review has the advantage of providing opportunities for students to view others' work and progress, as well as for them to give and receive feedback in a timely manner. Some of its drawbacks include the highly variable quality of peer feedback, as well as a lack of back-and-forth discussion after the feedback is received (Bali, 2014).

The third type of feedback comes from the course instructor. Because of the vast enrollment numbers in MOOCs, the role of instructors is often "decentered" (Stewart, 2013), and it is unreasonable to expect deep and extensive instructor-student interaction. Under such conditions, instructors often encourage active use of discussion forums in which students can solve problems with the help of their peers or teaching assistants, without instructors' direct intervention. This is not to suggest, however, that no student-instructor interaction takes place: some professors hold an "online office hour" in which they collect questions from students to respond to later (Bali, 2014); others use synchronous tools such as Google Hangouts to hold online conversations, in which students type their questions and the teacher answers via video link.

### 3.4 Deadlines

The deadline policies imposed by MOOCs appear to be much more varied than those adopted in traditional classrooms. In general, just two types of deadlines are found in MOOCs: for quizzes/exams, and for assignments/projects. The former are usually quite flexible, to allow students to proceed at their own learning pace, with most quiz deadlines being the end-of-course date. Assignment deadlines are usually firmer, so that peer review can occur in a timely manner (Bali, 2014).

### 3.5 Pedagogy

The emergence of MOOCs gives educators a chance to reflect on where we have come from and where we may be heading in the coming decades. It was recently reported in the news that a MOOC instructor decided to leave his course because of a disagreement over how to best to teach it (Kolowich, 2013b). Before exploring any new form of teaching, learning or assessment, it is essential to reflect your own pedagogy. As Garrett (1991) pointed out, since a complex ability "can hardly be 'taught,' our job is to create an environment – in class or in our materials – in which students can work on acquiring that ability" (p. 92); and this is no less true of MOOCs.

Computers have been used in education for several decades. In the field of computer-assisted language learning (CALL), Warschauer (1996) has associated the use

of technology in language education with particular learning theories. The first stage is *tutorial CALL*: based on behaviorism, it is usually associated with repetitive grammar exercises, and allows very limited levels of interaction (Blake, 2009; Garrett, 1991, 2009). Beyond this strong emphasis on grammar instruction, it has been used to facilitate vocabulary acquisition, providing multiple exposures to new words through glossaries and explicit instruction, and tracking students' lexical problems (Cobb, 2007). Research has shown that tutorial CALL has a positive impact on vocabulary acquisition (for a detailed review, see Chun, 2006).

An increasing focus on communicative approaches in the 1980s affected the way language educators used computers. According to cognitivism, learning is a process of acquiring and reorganizing schema or symbolic mental structures (Greeno, 1998). Grounded in cognitivism, *communicative CALL* uses computers to stimulate students' motivation to express themselves (Taylor, 1980). The focus of learning is more on the use of forms than on the forms themselves (Chapelle, 2009; Warschauer, 1996).

The idea of social learning, or social constructivism, became prominent in the '90s. Accompanying the spread of Internet access, *computer-mediated communication* (CMC) enables learners to communicate both asynchronously and synchronously with instructors, peer learners, and native speakers all over the world, and in the process, to develop their communicative competence (Warschauer, 1997). Research on CMC has demonstrated its wide range of benefits for language learning, including opportunities to practice in the target language (Warschauer, 1999; Warschauer & Liaw, 2010) and improvement of language forms (R. J. Blake, 2000).

An even more recent conceptualization of learning is *connectivism*, which incorporates technology and connection-making as learning activities; learning occurs through the process of connecting specialized information together (Siemens, 2005). Individuals build up their personal knowledge networks by connecting with both content and other learners, through the use of social media, blogs, Wikis, and so forth. The primary goal for connectivist courses is not learning particular content or mastering specific skills. Rather, they place great emphasis on constructing knowledge through conversation, socially and mutually (Lane, 2012).

cMOOCs are fundamentally connectivist in character and as such, usually consist of four major activities: aggregation, remixing, repurposing, and feeding forward (Downes, 2011). After reading the course materials, learners will share their knowledge and thoughts using a specific hashtag, a labeling system that is widely used in social media. Instructors will then *aggregate* blog posts, tweets from Twitter, bookmarks from Delicious, and discussion posts made by instructors, course participants/facilitators, and experts in the field of study.

*Remixing* refers to a process of finding commonalities between materials from the course website and other sources. Participants are encouraged to document the materials they have accessed, and their thoughts and reactions to these, and share them with others via the social media of their choice. *Repurposing* takes learning to the next level: learners use the aggregated and remixed materials to compose original work and reach new

understandings of the course materials and concepts. In the last activity, *feeding forward*, individuals share their work with others in the course, as well as others out in the world.

xMOOCs offered by universities often simulate face-to-face experience or modify it for online-learning purposes; as such, they are often more structured than cMOOCs. The design of xMOOCs has been greatly influenced by cognitive-behaviorist theory, with some social-constructivist elements (Rodriguez, 2012).

#### **4. MOOCs related Chinese Language Education**

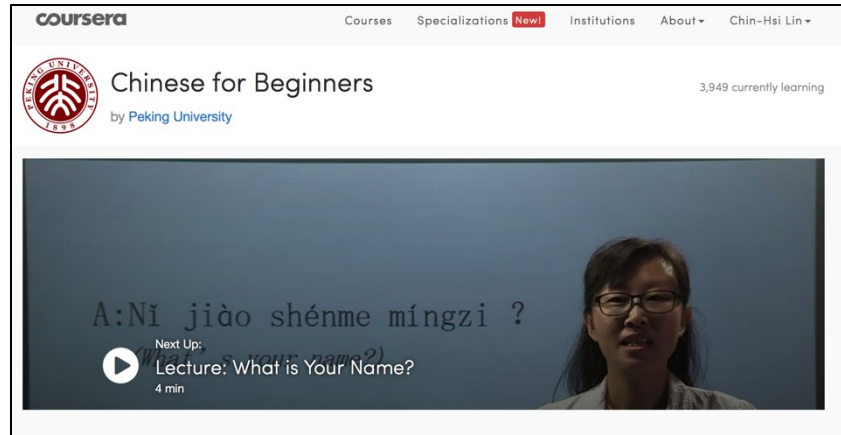
As mentioned earlier, the teaching paradigm of xMOOCs is knowledge transfer, and a central aim of current practices on xMOOCs is to simulate face-to-face instruction in online settings. Though xMOOCs provide a wide range of courses, at the time of writing we found very few language courses on Coursera and EdX (see Appendix). iTunes U has several online language courses, but interactions on these courses are very minimal, as they do not encourage any teacher-student or student-student interaction. iTunes U recently updated to iTunes U 2.0 and students can now ask questions, answer questions from other students, and participate in discussions. Despite discussions being a common feature of the major MOOC providers, however, online language courses are still not comparable to language courses taught in face-to-face settings.

Interaction is a central focus in language learning. From a sociocultural perspective, students acquire new language forms through interaction with teachers and peers (Lantolf, 1994). Interactions on MOOCs rely heavily on crowdsourcing feedback from other participants. If teachers, students, and/or computers cannot provide timely feedback and point out areas for improvement, MOOCs for language learning may not be very helpful, at least according to an interactionist perspective (see Blake, 2007). On the other hand, if teachers can provide a viable structure for interactions and peer review on top of computer-based feedback, MOOCs may have the potential to make online language learning more meaningful.

With all that being said, xMOOCs may be appropriate for Chinese teaching in several areas. In the following section, we provide example courses for each of these.

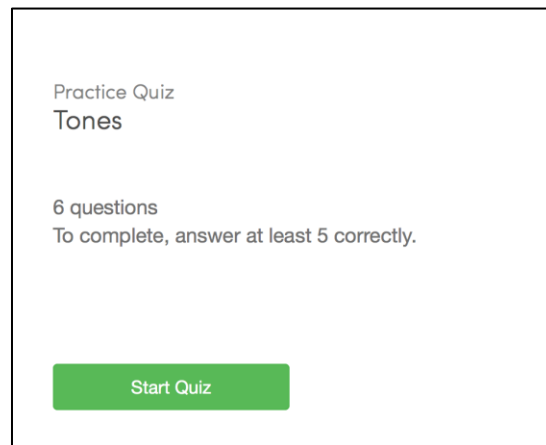
##### **4.1 Beginning-level Chinese**

MOOCs may be suitable for beginning Chinese, as mastery of the content may not require social interactions.

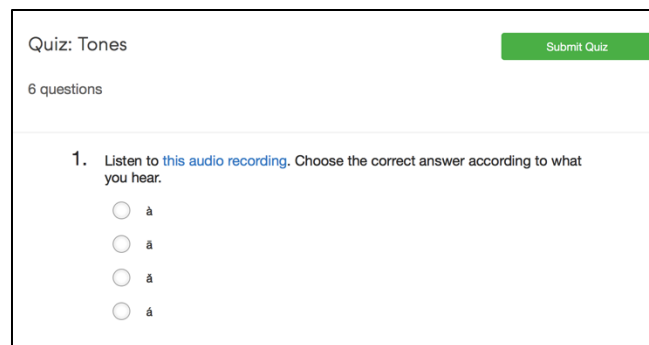


**Figure 1 Chinese for beginners developed by Peking University**

Take for example Chinese for Beginners, developed by Peking University. Since this is an introductory course, many assignments focus on acquiring vocabulary and mastery of certain expressions, such as “What is your name?” (你叫什么名字). At the end of each video lecture, it shows a practice quiz (see Figure 2). These quizzes focus mainly on accuracy or mastery of a particular concept rather than communicative competency. For example, Figure 3 shows a tone-perception quiz, which does not involve interaction with others.



**Figure 2 Example of an end-of-lecture quiz**



**Figure 3 Tone quiz**



This is not to imply that the course does not include social interactions. In fact, as shown in Figure 4, many students used its Questions feature to ask about the content or to practice the language forms they had learned from the course.

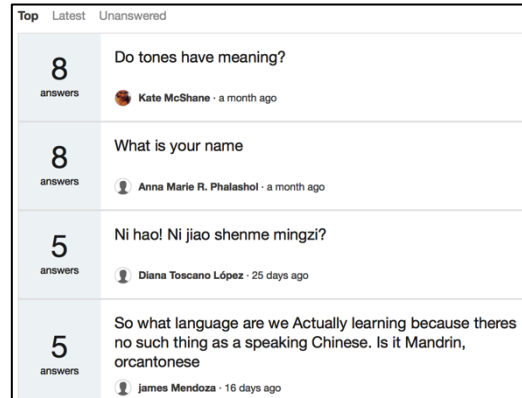


Figure 4 Discussions and interactions on Chinese for Beginners

## 4.2 Chinese Grammars and Chinese Culture

In addition to beginning Chinese, courses that focus on content knowledge – such as Chinese grammar or characters – align with the aims and affordances of xMOOCs. EdX's Intermediate Chinese Grammar requires students to know more than 1,500 Chinese words before enrolling. Although this course allows students to ask questions, its assessment process does not involve either peer review or self-evaluation. Instead, homework constitutes 40% of the grade, and the midterm and final exams 30% each.

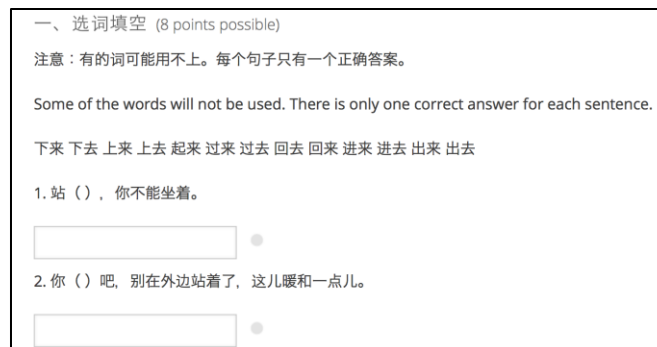


Figure 5 Final exam in Intermediate Chinese Grammar course

Chinese-culture courses like ChinaX on EdX also run in a very similar format: the learning materials are delivered through short video lectures, and learning is assessed through quizzes. At the end of the videos, students take multiple-choice quizzes to evaluate their understanding of the lecture.

Since ChinaX is a culture course, basic proficiency in the Chinese language is not a prerequisite. The audio content is in English, but the course provides both English and Chinese captions next to the video.



Figure 6 Bilingual captions in ChinaX

### 4.3 Professional Development

xMOOCs have many courses dedicated to teachers' professional development in general, and several for language teachers in particular. In the area of teacher professional development generally, you can find courses related to the foundations of teaching, online instruction, and language-teaching approaches. These courses usually have a large number of enrollments. One example is Coursera's Assessment and Teaching of 21st Century Skills. This six-week course had nearly 16,000 students from 171 countries when offered in 2014. Many of the participants in the course also joined its associated Facebook group, though the discussions about this course were very limited, in spite of or because of the high number of enrollments. It may have been decisive that discussion was not a required activity for this class, with each thread typically garnering fewer than 100 page views and around five responses.

For professional-development courses, learning usually occurs via watching the video lectures and completing assignments. Though Assessment and Teaching of 21st Century Skills has several quizzes, these only constitute 10% of the assessment. The major assignments are two papers outlining the student's approaches to teaching 21st-century skills. This course capitalizes the learning communities, and uses both peer reviews and self-evaluation, with the instructors providing clear rubrics for these two assessment methods. One assignment concerning collaborative skills included the following rubric for peer review: "The submission demonstrates an understanding of why collaborative problem solving is relevant to the people targeted by the teaching task."

## 5. Building a MOOC Using Google Classroom

Alongside the trend of MOOCs being launched by an increasing number of higher-education institutions is the growth in custom-building of MOOCs by individuals. This section provides practical tips for setting up a custom MOOC through the platform Google Classroom. It should be noted, however, that Google Classroom is only one type

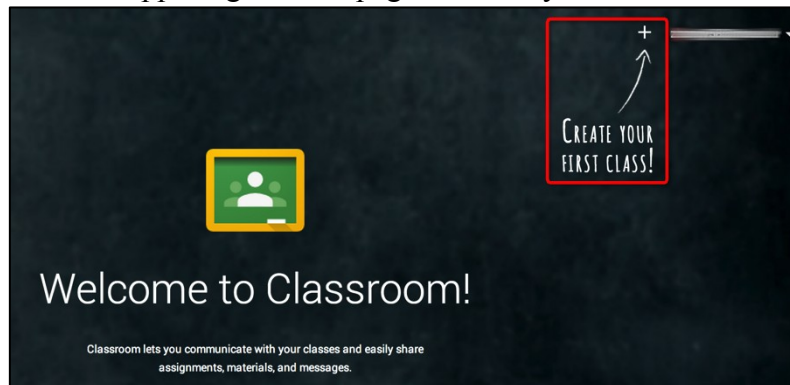
of individual course builder, among many other choices including Udemy, Uzity, Versal, Moodle, and EdX. For more information about building one's own MOOC, readers can refer to John Swope's open course<sup>1</sup> on how to build a custom MOOC. We chose Google Classroom as an example because it is free to the public and very user-friendly.

1. Go to the Google Classroom site (<https://classroom.google.com>) and click "go to classroom". As the time of writing, Google Classroom is for users that have access to Google Apps for Education. Many higher-education institutions have partnered with Google, so please check with technology support in your local school to see how to access these apps.



**Figure 7** The introduction page of Google Classroom

2. Click the "+" on the upper right of the page to create your own class.



**Figure 8** Creating your first class on Google Classroom

3. After creating the course page, you should see a page like this. Don't forget to make a note of the class code of your course. To join your class, students may enter this code.

<sup>1</sup> c.f. <http://edx.curricu.me/courses/Curricume/MOOC101/2014/about>

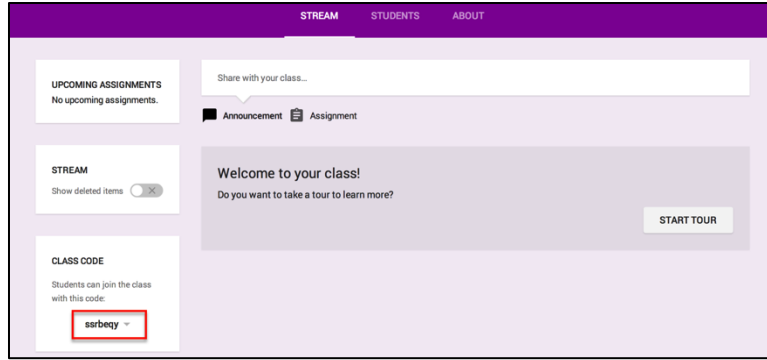


Figure 9 Class code on Google Classroom

4. Another way to add students is to go the “STUDENTS” page, and invite people to join your class through entering or selecting their email addresses.

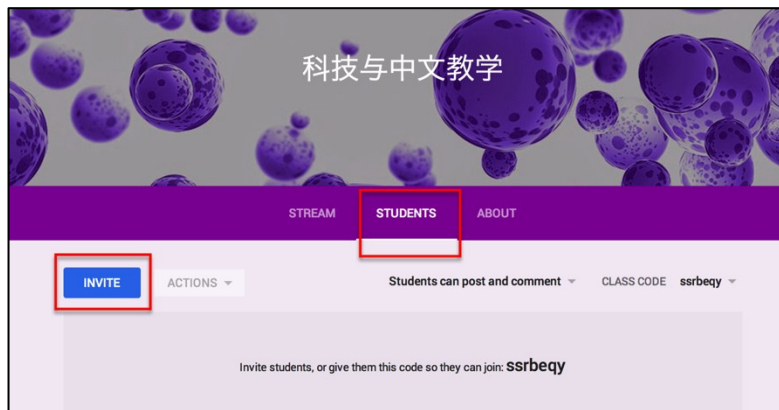


Figure 10 Inviting students to enroll in the class

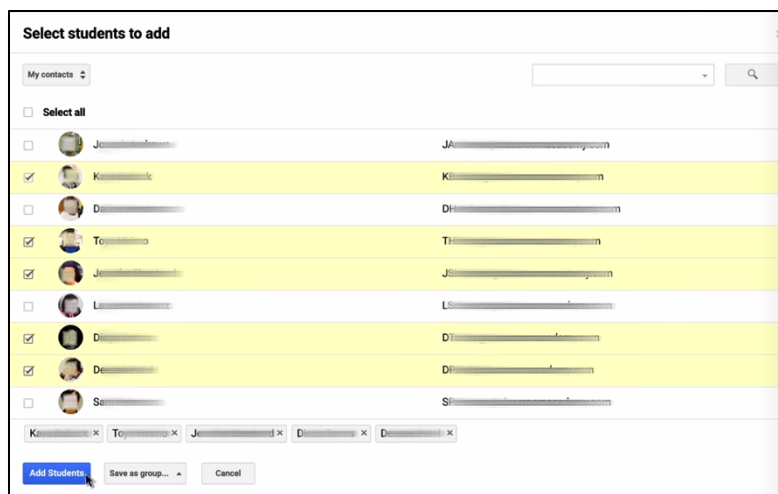
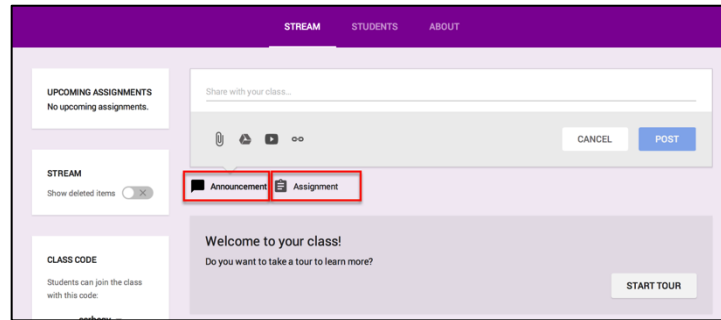


Figure 11 Student invitation page

5. Class announcements and assignments can be posted through clicking “Announcement” and “Assignment” on the “Stream” page. One advantage of using Google Classroom is its deep integration with other Google products including Google Drive, Docs, Sheets, Gmail, and YouTube. Therefore, all course content as well as students’ submitted

assignments can be stored in your Google Drive automatically. The system also makes it easy for you to share documents from folders in your Google Drive.



**Figure 12** Creating announcements and assignments

These steps will be sufficient for you to start your own course, but before you release it to students, please be sure to test it multiple times to ensure that all the instruction is clear and there are no technical glitches. It was recently reported in the news that a MOOC on Coursera was suspended after the first week of instruction, due to a technical malfunction, lack of clear instruction, and poor lecture quality (Kolowich, 2013a). You would not want your students to have such an extremely negative experience.

## 6. Conclusion

At their best, MOOCs enable educators to re-examine traditional instructional approaches and make instructional use of the new insights they gain. Several studies have mentioned this “byproduct” of the MOOC phenomenon. For example, Johnson (2013) described his experience of teaching a MOOC, and concluded that it had inspired him to adopt some innovative and alternative approaches which in turn could be used with his on-campus, face-to-face students. Similarly, Clinnin (2014) shared her experience of teaching rhetoric to a global audience. As only 37% of the students identified English as their first language, the instruction team embraced the multilingual character of the student body and fostered the formation of communities to support student learning. This engagement of students in reciprocal educational exchange led to high student engagement and active learning networks. Such new insights on pedagogy also raise the possibility of further enriching the format of traditional classrooms through videos, off-line reading, or other types of online teaching.

**Acknowledgement:** The authors would like to thank Dr. Liu, Shijuan and anonymous reviewers for their valuable comments and suggestions.

## References

Altbach, P. G. (2013). MOOCs as Neocolonialism: Who controls knowledge? Retrieved from <http://chronicle.com/blogs/worldwise/moocs-as-neocolonialism-who-controls-knowledge/33431>

- Anderson, N. (2014, October 20). Free online AP courses debut on edX Web site. *The Washington Post*. Retrieved from [http://www.washingtonpost.com/local/education/free-online-ap-courses-debut-on-edx-web-site/2014/10/20/6b16c204-5883-11e4-b812-38518ae74c67\\_story.html](http://www.washingtonpost.com/local/education/free-online-ap-courses-debut-on-edx-web-site/2014/10/20/6b16c204-5883-11e4-b812-38518ae74c67_story.html)
- Bali, M. (2014). MOOC pedagogy: Gleaning good practice from existing MOOCs. *MERLOT Journal of Online Learning and Teaching*, 10(1), 44–56.
- Blake, C. (2009). Potential of text-based Internet chats for improving oral fluency in a second language. *The Modern Language Journal*, 93(2), 227–240. doi:10.1111/j.1540-4781.2009.00858.x
- Blake, R. J. (2000). Computer mediated communication: A window on L2 Spanish interlanguage. *Language Learning & Technology*, 4(1), 120–136.
- Blake, R. J. (2007). New trends in using technology in the language curriculum. *Annual Review of Applied Linguistics*, 27(-1), 76–97. doi:10.1017/S0267190508070049
- Chapelle, C. A. (2009). The relationship between second language acquisition theory and computer-assisted language learning. *The Modern Language Journal*, 93, 741–753. doi:10.1111/j.1540-4781.2009.00970.x
- Chun, D. M. (2006). CALL technologies for L2 reading. In L. Ducate & N. Arnold (Eds.), *Calling on CALL: From theory and research to New directions in foreign language teaching* (pp. 69–98). San Marcos, TX: CALICO.
- Clinnin, K. (2014). Redefining the MOOC: Examining the multilingual and community potential of massive online courses. *JOGLTEP*, 2(3). Retrieved from <http://www.jogltep.com/index.php/JOGLTEP/article/view/24>
- Cobb, T. (2007). Computing the vocabulary demands of L2 reading. *Language Learning & Technology*, 11, 38–63.
- Daniel, S. J. (2012). Making sense of MOOCs: Musings in a maze of myth, paradox and possibility. *Journal of Interactive Media in Education*, 3.
- Downes, S. (2011). Connectivism and Connective Knowledge ~ Stephen's Web. Retrieved November 15, 2014, from <http://www.downes.ca/post/54540>
- Garrett, N. (1991). Technology in the service of language learning: Trends and issues. *The Modern Language Journal*, 75, 74–101. doi:10.1111/j.1540-4781.2009.00968.x
- Garrett, N. (2009). Computer-assisted language learning trends and issues revisited: Integrating innovation. *The Modern Language Journal*, 93, 719–740. doi:10.1111/j.1540-4781.2009.00969.x
- Greeno, J. G. (1998). The situativity of knowing, learning, and research. *American Psychologist*, 53(1), 5.
- Hill, P. (2014). Four barriers that MOOCs must overcome to build a sustainable model. Retrieved November 14, 2014, from <http://mfeldstein.com/four-barriers-that-moocs-must-overcome-to-become-sustainable-model/>
- Johnson, D. H. (2013). Teaching a “MOOC”: Experiences from the front line. In 2013 *IEEE Digital Signal Processing and Signal Processing Education Meeting (DSP/SPE)* (pp. 268–272). doi:10.1109/DSP-SPE.2013.6642602
- Johnson, L., Adams Becker, S., Estrada, V., & Freeman, A. (2014). *NMC horizon report: 2014 higher education edition*. Austin, TX: The New Media Consortium.
- Kay, J., Reimann, P., Diebold, E., & Kummerfeld, B. (2013). MOOCs: So many learners, so much potential. *IEEE Intelligent Systems*, 28(3), 70–77.

- Kolowich, S. (2012). How will MOOCs make money? Retrieved November 21, 2014, from <https://www.insidehighered.com/news/2012/06/11/experts-speculate-possible-business-models-mooc-providers>
- Kolowich, S. (2013a, February 4). Georgia Tech and Coursera try to recover from MOOC stumble. Retrieved from <http://chronicle.com/blogs/wiredcampus/georgia-tech-and-coursera-try-to-recover-from-mooc-stumble/42167>
- Kolowich, S. (2013b, February 18). Professor leaves a MOOC in mid-course in dispute over teaching. Retrieved from <http://chronicle.com/blogs/wiredcampus/professor-leaves-a-mooc-in-mid-course-in-dispute-over-teaching/42381>
- Kolowich, S. (2013c, March 18). The Professors Behind the MOOC Hype: Survey results. *The Chronicle of Higher Education*. Retrieved from <http://chronicle.com/article/The-Professors-Behind-the-MOOC/137905/#id=overview>
- Lane, L. (2012). Three kinds of MOOCs. Retrieved November 26, 2014, from <http://lisahistory.net/wordpress/2012/08/three-kinds-of-moocs/>
- Lantolf, J. P. (1994). Sociocultural Theory and Second Language Learning: Introduction to the Special Issue. *The Modern Language Journal*, 78(4), 418–420. doi:10.2307/328580
- Lungton, M. (2012). What is a MOOC? What are the different types of MOOC? xMOOCs and cMOOCs. Retrieved from <http://reflectionsandcontemplations.wordpress.com/2012/08/23/what-is-a-mooc-what-are-the-different-types-of-mooc-xmoocs-and-cmoocs/>
- McGuire, R. (2014). The best MOOC Provider: A review of Coursera, Udacity and Edx. Retrieved November 26, 2014, from <http://www.skilledup.com/articles/the-best-mooc-provider-a-review-of-coursera-udacity-and-edx/>
- Means, B., Toyama, Y., Murphy, R., Bakia, M., & Jones, K. (2010). *Evaluation of evidence-based practices in online learning: A meta-analysis and review of online learning studies*. Washington, D.C: U.S. Department of Education.
- Morrison, D. (2013). The ultimate student guide to xMOOCs and cMOOCs. Retrieved November 26, 2014, from <http://mooconewsandreviews.com/ultimate-guide-to-xmoocs-and-cmoocso/>
- Ng, A. (2014). A personal message from co-founder Andrew Ng. Retrieved November 14, 2014, from <http://blog.coursera.org/post/85921942887/a-personal-message-from-co-founder-andrew-ng>
- Rodriguez, C. O. (2012). MOOCs and the AI-Stanford like courses: Two successful and distinct course formats for massive open online courses. *European Journal of Open, Distance and E-Learning*, 2012(2). Retrieved from <http://www.eurodl.org/?p=current&article&article=516>
- Shah, D. (2013). MOOCs in 2013: Breaking down the numbers. Retrieved November 26, 2014, from <https://www.edsurge.com/n/2013-12-22-moocs-in-2013-breaking-down-the-numbers>
- Sharma, Y. (2013). Asia's first MOOC draws students from around world. Retrieved November 26, 2014, from <http://www.universityworldnews.com/article.php?story=20130417153545600>
- Siemens, G. (2005). Connectivism: A learning theory for the digital age. *International Journal of Instructional Technology & Distance Learning*, 2005(Jan).

- Siemens, G. (2012). MOOCs are really a platform. Retrieved from <http://www.elearnspace.org/blog/2012/07/25/moocs-are-really-a-platform/>
- Stewart, B. (2013). Massiveness + openness = New literacies of participation?, *9*(2), 228–238.
- Tallent-Runnels, M. K., Thomas, J. A., Lan, W. Y., Cooper, S., Ahern, T. C., Shaw, S. M., & Liu, X. (2006). Teaching courses online: A review of the research. *Review of Educational Research, 76*(1), 93–135. doi:10.3102/00346543076001093
- Taylor, R. (1980). *The computer in the school: Tutor, tool, tutee*. New York: Teachers College Press.
- Warschauer, M. (1996). Computer-assisted language learning: An introduction. In S. Fotos (Ed.), *Multimedia language teaching* (pp. 3–20). Tokyo, Japan: Logos International. Retrieved from <http://www.ict4lt.org/en/warschauer.htm>
- Warschauer, M. (1997). Computer-mediated collaborative learning: Theory and practice. *The Modern Language Journal, 81*, 470–481. doi:10.2307/328890
- Warschauer, M. (1999). *Electronic literacies: Language, culture and power in online education*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Warschauer, M., & Liaw, M.-L. (2010). *Emerging technologies in adult literacy and language education*. Washington, DC: National Institute for Literacy.
- Zhao, Y., Lei, J., Yan, B., Lai, L., & Tan, H. S. (2005). What makes the difference? A practical analysis of research on the effectiveness of distance education. *Teacher College Record, 107*, 1836–1884.



## Appendix

### Chinese Language

- Chinese for Beginners: <https://www.coursera.org/learn/chineseforbeginnersh>
- Intermediate Chinese Grammar (中级汉语语法):  
<https://www.edx.org/course/intermediate-chinese-grammar-zhong-ji-yi-pekings-20000001x>
- Easy Chinese by Open University of China:  
<https://itunes.apple.com/us/course/easy-chinese/id648774545>
- Elementary Chinese I by Kirkwood Community College:  
<https://itunes.apple.com/us/course/elementary-chinese-i/id554731402>

### Chinese Culture

- The Beauty of Kunqu Opera (崑曲之美): <https://www.coursera.org/cuhk>
- ChinaX: <https://www.edx.org/course/china-harvardx-sw12x>
- Chinese thought: Ancient wisdom meets modern science:  
<https://www.edx.org/course/chinese-thought-ancient-wisdom-meets-ubcx-china300x>

### Other Language Courses

- Advanced Spanish Language and Culture: <https://www.edx.org/course/advanced-spanish-language-culture-st-margarets-episcopal-school-aslex>
- On-Ramp to AP French Language and Culture: <https://www.edx.org/course/ramp-ap-french-language-culture-weston-high-school-pflc1x>
- Language courses at the Open University:  
<https://itunes.apple.com/us/institution/the-open-university/id380206132>

### Teacher Education

- Virtual Teacher Program: <https://www.coursera.org/specialization/virtualteacher/>
- Shaping the Way We Teacher English:  
<https://www.coursera.org/course/shaping1landscape>
- Foundation of Teaching and Learning:  
<https://www.coursera.org/specialization/foundationsteaching/>
- The Art of Teaching: <https://www.edx.org/course/art-teaching-gemsx-ge001x>
- Assessment and Teaching of 21st Century Skills:  
<https://class.coursera.org/atc21s-001h>