MOOC AS A LABORATORY OF CULTURE SHOCK: HELPING NON-U.S. STUDENTS INTEGRATE INTO ALL-AMERICAN VIRTUAL ENVIRONMENT

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ABSTRACT

"iMOOC101: Mastering American e-Learning" is a Coursera-based, free, massive online course aimed at preparing non-U.S. students to succeed in regular, for-credit, online classes in American universities. The course is also intended to help foreign-born professionals integrate into virtual work environments in U.S.-based companies. The development of the course is informed by two decades of practical experience of one U.S. public university in the field of international distance learning. The course is designed as a virtual laboratory of culture shock (Chukhlomin, 2010, 2016) where students are exposed to unfamiliar virtual environments and learn how to understand and adapt to the American online culture, the academic system, and professional contexts. The course had initially been developed as a small-scale, for-credit, online course; in 2014-2015 we obtained two Innovative Instructional Technology Grants to transform it into a MOOC format. Here we report on the design principles and the first results.

1. INTRODUCTION

Research has shown that non-native online learners and working professionals face significant barriers when they immerse into virtual learning and work environments in another country (Zhang & Kenny, 2010; Liu *et al*, 2010). One way to address this problem is to use transition, or bridging, courses that can help non-natives overcome barriers and succeed in the new virtual environments (Peelo & Luxon, 2007; Evans & Northcott, 1999). According to Chukhlomin, Deshpande and Chandra (2013), in the context of international online learning in the U.S. a transition course is one that helps international online students better understand and become familiar with American culture, the academic system, and the ways of doing things. This includes learning about the use of specific learning management systems, refining critically important skills (communications skills, research skills, cross-cultural skills), practicing some of the widely used in the U.S. educational technologies (electronic libraries, videoconferencing, e-portfolios), modelling expected behaviors (time management, open discussions and debates, teamwork), and adjusting to student-centered pedagogies. By taking a transition course, a non-native learner can overcome or significantly lower the barriers and become better prepared for studying subsequent subject matter in an American university or taking a virtual job with an American employer.

2. VIRTUAL CULTURE SHOCK AND VIRTUAL ACCULTURATION IN TRANSITION COURSES

A guiding conceptual framework for understanding barriers and developing alleviating strategies in transition courses is provided by the theory of culture shock introduced by Oberg (1960) and refined by Ward *et al* (2001). Building on the Ward's ABC model of culture shock (2001, p. 270-272), virtual culture shock is further defined by Chukhlomin (2010, 2016) as a situation where a non-native learner ("virtual sojourner") is

suddenly exposed to a completely unfamiliar virtual setting and is wholly overwhelmed by it (this is the "A", the affective component of the model). Two other components (the "B" and the "C") are behavioral and cognitive; the cognitive component is the one that enables the individual to reflect on the situation, understand its root causes and consequences, and to take action. The behavioral component deals with the practicalities of instrumental adjustment helping the virtual sojourner adapt to the new online environment and learn how to navigate and even thrive in it. The components of the model are interconnected and support each other. Before the behavioral component is engaged, the affective signal should be received and correctly interpreted by the learner as the need to adapt.

Virtual acculturation, the intended outcome of the transition, is to be achieved by walking the individual through the following steps: a) exposure to a situation of a virtual culture shock; b) debriefing and analysis; c) competence building. In the context of a transition course, virtual acculturation is the major learning goal. Two subordinate learning objectives are the following: a) developing in virtual sojourners the ability to recognize cultural, linguistic, technological, and other barriers that inhibit learning in the foreign online environment; b) building competencies enabling them to overcome the barriers and effectively function in the new environment.

3. THE IMOOC PROJECT

For more than two decades, a group of the University's faculty has been engaged in delivering transition courses for remote cohorts of non-U.S. business students and working professionals utilizing various scaffolding tools and techniques, such as facilitated group studies, bilingual and bicultural instruction (Chukhlomin *et al*, 2013). Initially, transition courses were only offered as small-scale, for-credit, online courses. The arrival of MOOCs has created new opportunities for remedial education (Bonk *et al*, 2015). In 2014, we obtained support from SUNY IITG to fund a project (now known as "the iMOOC Project") aimed at converting a series of transition courses into a MOOC format. In 2015, we piloted a facilitated MOOC; in 2016, we re-designed it and launched a permanent, on-demand version of that course on Coursera (https://www.coursera.org/e-learning).

3.1 Course Design

"*iMOOC101: Mastering American e-Learning*" is a facilitated version of the massive online course that is aimed at preparing international online learners to successfully transition to virtual learning and work environments in U.S. universities (Figure 1).
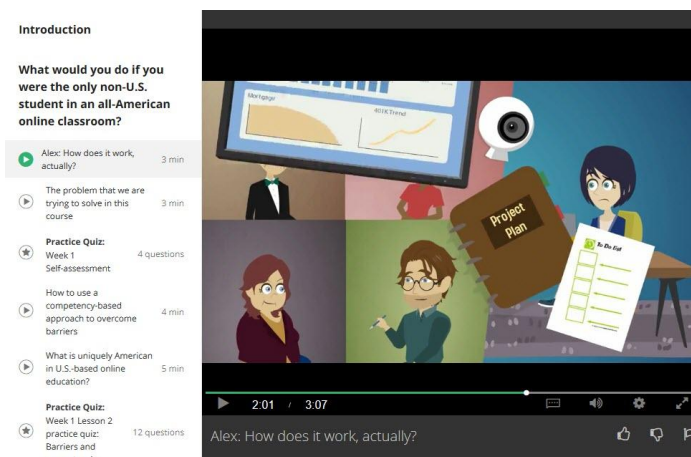

Figure 1. Screenshot from iMOOC101 "Mastering American e-Learning"

The target audience of the course includes the following groups of learners:
1. Remotely located, international online learners – either in organized cohorts or as individuals.
2. International students located outside of the U.S. and enrolled in dual degree programs established by their home institutions with U.S. universities.

3. International students preparing for departure to a U.S. educational institution.

4. Beginning international students that are already in the U.S. and looking for additional support.

5. Recent immigrants to the U.S. or those who are considering employment with U.S.-based companies.

According to Adeniran *et al* (2008), a good starting point for designing a transitional program is to create a comprehensive list of barriers and to identify competencies that are needed to overcome the barriers. For the iMOOC project, we used an original taxonomy of barriers, alleviating strategies, and required competencies which included 10 types of barriers and provided 69 diagnostic statements for self-assessment (Chukhlomin, 2016). The taxonomy served as a guiding pedagogical framework for the backward design (Wiggins and McTighe, 2005) of the course. In the final version, the course included six learning modules: Module 1: Introduction, Module 2: Technology, Module 3: Language and Culture, Module 4: Communicating Ideas, Module 5: The U.S. Academic System, and Module 6: Professional Contexts. Overall, for this course we created 85 original videos and animations, 45 content guides, 27 self-assessments, a range of moderated activities (discussions), pre- and post-course comprehensive self-assessments, and a concluding final paper assignment. We also filmed interviews with Lebanese students taking regular, for-credit, online courses at a U.S. university.

3.2 The Pilot

The first facilitated session of the course was conducted on Coursera in March-May 2015 as a tuition-free, certificate course. To attract students, the course team relied on Coursera marketing department, but also reached out to the U.S. Department of State and the University's Global Center. In addition to open enrollment, there were supervised groups of students in New Paltz, NY and the University's programs in Greece and Panama. Additionally, there were several student groups in Indonesia observed by local EducationUSA staff. The course length was 6 weeks, with additional optional modules. During that time 6 faculty members facilitated course discussions.

According to the Coursera, 4,887 students signed up for the course. The learners followed a typical for Coursera (Glance and Barrett, 2014), "L-shaped", exponential pattern of participation (Figure 2).

Figure 2. Content activity in iMOOC101

Overall, 3,071 students ever visited it, 1,840 watched a lecture, 628 browsed a discussion, and 423 submitted an exercise. There were 17,368 total streaming video views and 24,020 video downloads; 430 unique participants did 3,186 quiz submissions. 278 participants submitted 1,188 unique discussion posts in 388 threads; those posts received in total 6,902 views. 48 participants chose to get a course certificate and submitted their final projects for peer-review; they also provided in total 164 peer-review evaluations; as a

result, 40 course certificates were granted. In terms of geography, the learners represented 145 countries, with 21% from the U.S., 15% - China, 5% - India, 4% - Mexico, 3% - Russia, 3% - Indonesia, 3% - Panama, 2% - Brazil, 2%.

In the beginning of the course, the learners were asked to clarify what topics they perceived to be the most interesting for them in the course; 448 students responded to this question. The responses indicated that the course indeed captured attention of the intended target population. "How a non-U.S. student residing outside of the U.S. can gain knowledge and develop skills to succeed in online classes offered by a U.S. college or university" was selected by 45% of all respondents; "How a working professional residing outside of the U.S. can develop skills that are useful in working with or for a U.S. organization" – 24%; "How a U.S.–based working professional can develop a better understanding of virtual environments in a cross-cultural perspective" – 13%; "How an international (non-U.S.) student residing in the U.S.-based campus can develop skills for online studies" – 12%, "None of the above" – 6%.

4. EVALUATION STRATEGIES

To evaluate the first pilot results, the course development team used the following methods and tools:
- Built-in self-evaluations in learning modules;
- The final paper;
- Pre- and post-course comprehensive self-assessment;
- Content analysis of discussions;
- Post-course survey assessment.

4.1 Post-course Survey Assessment

The post-course survey questionnaire was based on a survey instrument developed by Zaharias and Poulymenakou (2009). The survey instrument focuses on specific constructs, such as content, visual design, navigation, accessibility, interactivity, self-assessment and motivation to learn all of which were found to be critical in examining the overall learner engagement and experience. The survey included both Likert scale questions and open-ended questions. The total number of questions in the survey instrument were 52. Some sample questions open ended questions were as follows:
- Describe whether the iMOOC helped you better understand the American cultural and academic systems. If so, how?
- Describe the benefits to have emerged for you by taking the iMOOC.
- Describe some of the challenges you faced in successfully completing the activities in the course.
- What would you like to see done differently in the iMOOC?

The participants of the course were asked to report whether the iMOOC helped them become familiar with and better understand American culture and the academic system. The results indicated that close to 50 % of the respondents agreed and over 35% of the respondents strongly agreed with this statement while only 2.6% disagreed. The participants were asked if they found the iMOOC enjoyable. The results indicated that 49.4% agreed and 36.4% strongly agreed while only 1.3% disagreed. Additionally, 48.1% agreed and 32.5% strongly agreed with the statement that the iMOOC provides instruction and training that matched the learners' experience. Furthermore, close to 35 % of the respondents agreed and over 55% of the respondents strongly agreed to the view that various resources (such as video-based lectures and interviews, weblinks, case studies) present within the iMOOC were valuable for supporting their learning.

Discussions formed a major interactive component of the iMOOC. The results indicated that 44.2 % of the respondents agreed and over 37% of the respondents strongly agreed to the view that the iMOOC provided opportunities and support for learning through interaction with others specifically via discussions while only 1.3% disagreed. Respondents of the iMOOC were also asked to report whether the iMOOC provided learners with control of their learning activities and helped them take ownership of learning. The results indicated that close to 52 % of the respondents agreed and over 35% of the respondents strongly agreed to this view while only 2.6% disagreed. The learners were also asked to describe what learning resources within the iMOOC helped them better understand the American culture and academic systems.

Qualitative analysis of the data (Deshpande & Chukhlomin, 2015) revealed that the majority of the learners indicated that video-based lectures specifically helped them understand American culture and academic system.

5. FUTURE WORK

Our results demonstrate that students who persisted in the course were satisfied with the learning offered by the iMOOC. A vast majority of the survey respondents indicated that activities and resources within the iMOOC helped them better understand the American academic and cultural system. However, further efforts are required to determine the impact of the iMOOC on students' ability to overcome barriers and develop necessary competencies.

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