



# The Pedagogical Potential of MOOCs for Creating a Collaborative Learning Environment

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## Abstract

*Many educators argue today that MOOCs present new educational opportunities for face-to-face language classes. With the increasing popularity of MOOCs and OER among learners and due to the innovative trends in higher education in the the Russian Federation, college instructors today are confronted with a lot of challenges. The objective of this action research is to work out the possible ways of MOOC integration in a blended Content and Language Integrated Learning course to create an authentic online collaborative community. The theoretical framework of the intervention is based on current MOOC theories, connectivism, and the Substitution, Augmentation, Modification, and Redefinition model by R. Puentedura. Thirty bachelor students from Moscow State University, enrolled in a Methodology of English Language Teaching blended course, participated in the first cycle of the research. The analysis based on the quantitative data (questionnaire) demonstrated the learners' positive attitude to this intervention due to the following possibilities: getting familiar with the theories and terminology on English as a Foreign Language (EFL) teaching, sharing experiences on the MOOC forums with the learners from all over the world and developing writing skills, etc.*

**Keywords:** MOOC, CLIL, collaborative language learning, interactive environment, collaboration skills, language skills, digital literacies.

## 1. Introduction

The new educational standards of Russian Federation require educators to design innovative instructional models based on digital technologies and open educational resources. The Ministry of Education and Sciences of Russian Federation launched in 2015 a long-term project aimed at promoting students' and instructors' motivation in implementing and creating MOOCs for higher education. Some universities in Russia have accepted MOOCs for credits since 2016. With the increasing popularity of MOOCs and OER among learners and due to the innovative trends in higher education in Russian Federation, college instructors today are confronted with a lot of challenges: how to integrate MOOCs in traditional or blended learning courses, how to evaluate student participation once a MOOC or some materials from it were implemented in the course, what kind of tasks and activities can be designed using MOOCs, what kind of instructional design to choose for integration, how to pick up a MOOC that can fit the aims and objectives of the taught course, etc.

## 2. The background for the study

From multiple points of view MOOCs can be considered as self-paced distance courses supported by social networking and a peer-tuition approach [1]. Without any doubts, MOOCs provide a great deal of pedagogical potential to design innovative educational models. They create authentic educational environment to develop learner communicative, digital and professional skills, they provide online interaction and high-quality online educational resources from top-ranking universities and colleges [2]. Forum discussions, that is an essential part of any MOOC, create interactive communities where participants from all over the world can share their experience, ideas and knowledge [3]. MOOCs foster highly demanded in digital age approaches such as the general peer assessment and the calibrated peer review, collaborative enquiry-based and project-based methods [4]. They enhance learner motivation through prompt and timely feedback from course participants .

The most frequently described way of MOOC integration is the use of MOOCs for flipped learning or "distributed flip" or hybrid MOOC model [5],[6]. In this model students are enrolled in the MOOC chosen by the instructor, they study the material presented online. In class they discuss, exchange ideas and opinions, share their progress, work in groups or individually, do the tasks tailored by their instructor using MOOC content to fit the objectives of his or her course. Israel M. came to the conclusion that there are two theoretical models of MOOC integration in traditional classroom: *single MOOC adoption* in which a MOOC is used as the primary source of information is synchronized with the on-campus course and *multiple MOOCs adoption* in which a MOOC is used by the instructor as additional learning resources [7].



It is also possible to use learning materials not from one but from various MOOCs [8]. The hybrid model seems to be very effective in terms of evaluation and assessment because learners can be provided with formative assessment and feedback from their teacher of the on-campus course [9]. Hybrid degree programs that include a combination of traditional and MOOC courses, have been launched recently at the Georgia Institute of Technology in the United States.

### **3. The methodological framework of the research**

The methodological framework of the research is based on the recently appeared pedagogical theories and approaches: connectivism, the Substitution Augmentation Modification Redefinition model (SAMR model) and the models of MOOCs integration offered by M. Israel [7]. Digital technologies have changed the way we interact, behave and learn. G. Siemens argues that the well-known pedagogical theories (behaviorism, cognitivism, and constructivism) cannot be implied any longer for designing a new educational/instructional model. Connectivism is the learning theory that fits the digital age education. According to the connectivism approach we “can no longer personally experience and acquire learning that we need to act. We derive our competence from forming connections” [10]. In other words, learning in the digital age is a continual process that occurs in a variety of ways – through online discussions and forums, group interactive activities, group-based projects, etc.

Another theoretical approach that is very important for this research is SAMR model designed by R. Puentedura. It was created for teachers who would like to integrate digital technologies and OER in learning process [11]. According to this model the use of new tech tools in education may lead either to the *enhancement of education* (augmentation and substitution phases) or to the *real transformation* (redefinition and modification phases). *Redefinition* is the highest transformation phase which allows for a completely new format of tasks and activities that were previously impossible.

#### **3.1. The rationale of the research**

The growing interest for MOOCs and open educational resources (OER) provides new opportunities for language education. Unfortunately, limited research and empirical data were provided to support the effectiveness of such intervention in blended CLIL or language classrooms. Godwin-Jones outlined the three areas within language learning where MOOCs can be implemented efficiently – teaching English as a second language, study of indigenous languages and teaching language for special purposes [4]. Unfortunately, *not much research and empirical data were provided to support the effectiveness of such kind of intervention in blended CLIL or language classroom*. So far it has been proved that MOOCs integration into traditional classroom has “modest positive impacts on learning outcomes, no significant evidence of negative effects for any subgroups of students, and lower levels of student satisfaction in blended MOOCs in classrooms” [7].

#### **3.2 The objective and the hypothesis of the research**

The objective of this action research is twofold. First, to work out the possible ways of MOOC integration in a blended CLIL course to create an authentic online collaborative community, and second, to analyze students’ perceptions of their MOOC experience as well as the pedagogical impact of this intervention on their motivation and learning outcomes.

The hypothesis of this action research was that OER, MOOCs specifically, could both enhance learner motivation by means of creating an authentic interactive online environment and influence the course performance or learning outcomes. This study, which was based on current MOOC theories, connectivism and SAMR approaches, focused on working out a new methodological framework for MOOC implementation in a CLIL course to create an authentic interactive environment where students can collaborate with the participants from other countries and learn with authentic materials.

## **4. Materials and Methods**

### **4.1. Participants**

30 bachelor undergraduate students (22 females, 8 males) from Lomonosov Moscow State University enrolled in a blended CLIL 15-week course *Methodology of English Language Teaching* participated in the first cycle of the research during the Fall semester 2016. The course, that is taught in English, aims at developing both professional and language skills (listening, reading, speaking) of the students. This course was designed to introduce a student-centered classroom, it is supported by the class blog where learners can communicate with the instructor and their groupmates and publish the



assignments. The language competence of students was B2-C1 according to the Common European Framework of References for Languages (CEFR).

#### 4.2 Research design

Our model of instruction includes a blended CLIL course supported by the group blog and student participation in the MOOC forums. The MOOC is used in this model as additional learning resources for setting up an authentic online collaborative community. This educational model provides different focuses of perspective on the course content, exposes students to different ways of teaching content, and helps students develop their communicative skills. This action research includes *the enhancement and substitution cycles* (Puente) . The main objective of the enhancement cycle is to analyze MOOC intervention from the perspective of students' engagement and their attitude to the intervention rather than students' outcomes. The second cycle of the research will focus mainly on learning outcomes. In other words, we are planning to analyze the pedagogical impact of this intervention on developing student language skills and collaboration skills. This paper is devoted to the analysis of the first cycle of the research.

At the *enhancement* cycle of the research the students were asked to enroll for the MOOC *Understanding language: Learning and Teaching* (Southampton University, UK) in October 2016. The course that was created by the University of Southampton and the British Council is aimed at graduates with an interest in the development of languages and language teaching. It gives graduates a taste of postgraduate study in the field of English language teaching. Students had to follow the online materials, complete the assignments and participate in discussion forums. Student participation in the MOOC was included into the course evaluation and was assessed using the two ongoing summative assignments: the e-portfolios that reflected their participation in the MOOC forums, and the course blog peer collaboration where they could comment on each other's contributions and experience. The participation in the discussion forums of the MOOC was required according to the course evaluation because as a lot of research showed students liked watching videos, reading extra materials but they didn't take active part in forum discussions [12]. Data collection of *the enhancement cycle* took place from September 2016 to January 2017. Survey data on the students' perception of the MOOC experience were collected using a post-intervention questionnaire. The post-intervention questionnaire contained 10 questions, out of which 5 questions in the format of Likert four-level scale, 3 multiple choice questions and 2 free-text comments aiming to get student views on their attitude to MOOC integration.

#### 5. Results and discussion

The questionnaire was completed by 30 students (22 female, 8 male). Responses to the 5 questions in the format of Likert four-level scale are provided in table 1.

Table 1. Results of the post-study Likert questionnaire

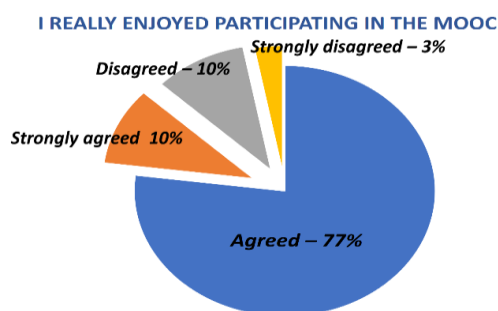
|   | Strongly agree | Agree | Disagree | Strongly disagree |
|---|----------------|-------|----------|-------------------|
| 1. Participation in the MOOC helps me acquire some knowledge (theories and approaches) in teaching English as foreign language and get ready for the tests and colloquium | 7              | 20    | 2        | 1                 |
| 2. Engagement in the discussion forums of the MOOC helps me develop my writing skills   | 4              | 24    | 2        | 0                 |
| 3. Engagement in the discussion forums of the MOOC helps me share my experience and opinions with other learners and be a member of peer community learning               | 7              | 21    | 1        | 1                 |
| 4. Engagement in the discussion forums of the MOOC helps me develop my collaborative skills and digital literacies  | 3              | 23    | 4        | 0                 |
| 5. I really enjoyed participating in the MOOC   | 3              | 23    | 3        | 1                 |

Answering question 6 aiming to figure out how many MOOC forums the students took part in, 14 students answered – all the forums, 10 – some of the MOOC forums, 6 – few of the MOOC forums, none of the students chose – none of the MOOC forums. In response to question 7 *What components of the MOOC do you think were the most valuable to your future professional success*, 16 students



chose video lectures; 16 – articles, only 3 – forum discussion, 2 – web resources. In response to question 8 *What did you gain most from taking part in the MOOC?* The students were asked to check all the variants that apply. 21 students marked the opportunity to get familiar with new theories and approaches, 10 students – the opportunity to develop your writing skills, 10 students– the opportunity to network with a like-minded group of people, 10 students - awareness of open educational resources. Our data analysis demonstrated that the overall positive attitude of the learners to this intervention – 87% (26 students) (Fig. 1).

Figure 1. Students' attitude to participation in MOOC



The learners agreed that MOOC integration in the course syllabus helped them: develop writing skills - 80% (24 students); develop collaborative skills and digital literacies – 77% (23 students); share experience and opinions with other learners and be a member of peer community learning – 70% (21 students); acquire some knowledge (theories and approaches) in teaching English as foreign language and get ready for the tests and colloquium – 67% (20 students).

Some free-text comments provided additional insight into learner experiences and revealed their positive attitude to the MOOC intervention. Answering the question *What did you like best about taking part in the MOOC?* almost 70% of the participants (21 students) mentioned the opportunity to communicate with other people via forum discussions. There are other benefits resulting from the use of MOOCs: 43% (13 students) indicated the opportunity to learn more about teaching approaches, 27% (8 students) – liked the video lectures as the way the content was presented. Our findings suggest that the students place heavy emphasis on the value of the lectures showing and demonstrating some practical approaches.

Only 13% (4 students) were not satisfied with this innovative model. The main reasons for the negative attitude were the lack of time and the overloaded schedule of the course as these 4 students (13%) said answering the free text question *What did you like least about taking part in MOOC?* The students complained that task completion required an extensive amount of time. This may be because some students did not have an appropriate language level, so they had to spend more time on listening and reading tasks, although none of the students mentioned that it had a negative impact on their experience.

More than that, as the researcher figured out at the weekly face-to-face sessions the students had some difficulty understanding specialized ESL terms. Although none of the students highlighted it as the negative impact on their experience. In order to solve the problems of the language barrier, the instructors have to adjust the content of on-campus language or CLIL courses to integrate MOOC materials in learning process efficiently [13]. They have to provide language support through glossaries, tasks designed on MOOC materials. One more reason for that is a lack of familiarity among students with online learning and with the teaching and learning techniques utilized as a part of a MOOC [14]. It is possible to improve learners' performance by providing personalized planning, tips and hints for time management, study habits and teamwork, and a meeting point for people who need help to keep pace with the MOOC and need to know who can offer them support.

Surprisingly enough, although 70% of the students mentioned the opportunity to communicate with other people via forum as their positive experience, still some (20%) argued that they didn't like collaborative tasks where they had to give arguments or counter arguments. This can be explained by lacking student experience in participating in online discussion. It was the biggest challenge encountered by the students. As Griffiths et al. argue participating in MOOC forum discussion students gain strong critical thinking in terms of the ability to distinguish between opinions and augmentations, improve their skills in critiquing with analytical comments [15].



## 6. Conclusion

MOOCs in education represent a new stage not only in distance learning and self-directed learning, as many authors assert, but also in a traditional face-to-face classroom. Integration of the MOOC in the course syllabus helped the instructor enhance learner motivation by means of creating an authentic interactive online environment that enabled students to be engaged in collaborative activities and develop communication and socio-cultural skills [16]. The data analysis demonstrated that the learners' positive attitude to this integration may be due to the following possibilities: sharing ideas and experiences on the MOOC forums with learners from all over the world, getting familiar with the theories on EFL teaching and learning, improving EFL terminology knowledge, and developing writing skills.

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