# EXPERIENCE WITH MASSIVE OPEN ONLINE COURSES IN SLOVAKIA

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Keywords: e-learning, Massive Open Online Courses, Education, Student satisfaction.

Massive Open Online Courses (MOOC) have become a phenomenon in recent years. The School of Management/City University of Seattle is the first institution that offers online education in Slovakia. In the months of July and August 2013 this school offered two MOOCs to the public, again as the first school in the country. The experience from these MOOCs will be discussed, comparing our experience with foreign studies and — based on empirical research — effective methods of teaching massive open online courses will be discussed.



### 1 Introduction

Online learning, also known as e-learning, is a relevant form of acquiring new knowledge, as it provides the opportunity to study anytime, anywhere and for anyone with the appropriate prior education (Todhunter, 2013, p. 237-238). Different types of technology can be used to transfer the information from the educator to the student in shortest time, least effort and with the maximum benefits (Khoury et al., 2011, p. 53).

E-learning has also its critics, who do not consider it as a full educational mode because of the lack of personal contact that possibly reduces the academic level and motivation of students (Busikova, 2012, p. 264).

A survey undertaken by The Cronicle of Higher Education in February 2013 suggested that "the average MOOC enrolment is 33 000 students, with an average of 7.5 % completing the course" (Head, 2013). According to *Jordan* completion rates range from 1.4 % to 50.1 %, with a median value of 9.8 % (Jordan, 2014, p. 134).

We describe our experience with two MOOCs provided by the School of Management in Slovakia. Further, we compare the evaluation of these courses based on questionaries of participants with similar courses delivered in other countries.

# 2 Methodology and objectives

The aim of this paper is to record the experience of students and teachers with the first two massive open online courses in Slovakia. We analyse the questionnaires filled out by the students in these MOOC courses. Questionnaires contained questions that elicited answers in form of marks 1-5 (continuous scale) and open questions.

The research was conducted on two samples: The first sample consisted of 122 participants of the MOOC Introduction to Project Management (PM course). The second sample consisted of 173 participants in the MOOC Verbal Communication for Managers (VC course). Both courses were offered by the School of Management in Bratislava (daughter institution of the City University of Seattle) in July and August, 2013. The length of these courses was six weeks.

In the PM course, there were 890 students enrolled initially. 176 students completed this course (19.8%) and out of this group 122 students completed the final questionnaire. In the VC course, there were 1,117 students enrolled - 178 students completed the course (15.9%), and out of this number 173 students completed the final questionnaire. The questionnaire was answered only by the students who went through the whole course. Opinion of students who dropped is not included.

# 3 Findings

The typical student in both courses was 25-30 years old. Most students in each course were aged 19-42 years (89.1%). Participation of students under 19 years old and over 42 years was small (10.1%).

Regarding the educational level of the students, university graduates dominated in both courses. More than 60% of students in both examined MOOCs had achieved a master's degree. This confirms the role of online education as a good instrument for life-long learning. These results can be considered consistent with the results in foreign MOOCs: 83 % of students being graduates and 44.2 % being educated at the postgraduate level (Jordan, 2014, p. 134).

In Slovakia, the completion of a master's degree is preferred because the bachelor's degree (for historical reasons) is considered as "unfinished" higher education. Therefore, the majority of adults who have the ambition to study at the university prefer to complete not only a bachelor's but also master's level degrees. This may be the explanation for the higher proportion (60%) of participants with a master's degree in Slovak MOOCs.

69.8% of students in both our samples were employed and 15.9% currently studied at universities. 71% of Open University students work full or part-time (Li et al., 2014, p. 230). According to a survey by the University of Pennsylvania, almost 80 % of the students enrolled in MOOCs offered by American universities are currently employed (Alcorn et al., 2014, p. 12-13).

The online platform Moodle was used. Students could participate in weekly discussions, there was the Questions and Answers forum and some of them also used email to ask further questions. It was possible to observe high participation of students in the first weeks of the course – this confirms the foreign experience that students are enthusiastic and ambitious at the beginning and participate actively. Table 1 documents the participation levels of students and teachers during the 6-week course. We can see that the number of students who participated in the course from week to week decreased gradually. The percentage of students who completed the course and received a certificate can be considered a success given that other studies mentioned above declare about 10 percent success rate.

Of the total number of students in the PM course, 186 students (21%) never entered the online environment of the course. In the case of VC course 172 students (15%) never entered – it means these students did not participate at all.



Table 1
PARTICIPATION OF STUDENTS AND TEACHERS IN DISCUSSION FORUMS, PM COURSE

Week	Number of postings - students	Number of postings - teachers
1	446	190
2	386	135
3	318	110
4	256	101
5	215	79
6	235	28

The number of students in both courses was lower than in many courses provided by other universities. This allowed teachers to treat students more individually, as teachers could participate actively in student discussions. While in other courses students often evaluate each other's work (peer assessment), in our case, feedback from teachers prevailed. We assume that students are more satisfied when they receive feedback from teachers. There are studies that provide evidence for this (for instance Kuo et al., 2013). Lack of communication between student and instructor affects student's satisfaction negatively (Kuo et al., 2013, p. 19).

Most respondents evaluated the courses positively: Over 80% of respondents expressed satisfaction with the application of knowledge from the courses in real life. 92% of respondents described the PM course as interesting or very interesting, and in the case of the VC course, it was more than 80% of respondents. 84.4% of respondents expressed satisfaction with the level and demands of the PM course and more than 80% with the VC course. The virtual environment Moodle was rated positively by 80.1% of the PM course and 63% of the participants of the VC course. 96% of respondents were satisfied with the visibility of the teacher in the forums in the PM course. In the case of the VC course, 74.6% of the participants were satisfied with the visibility of the teacher.

Various aspects of the course (course difficulty, course interestingness, application of knowledge of the subject in real life, teacher's ability to explain the subject matter in an interesting and effective way, visibility of teacher in forums, Moodle virtual environment) were assessed at the point scale from 1 to 5, where 1 represents the lowest satisfaction and 5 the highest satisfaction. All aspects of the PM course were evaluated with an average mark of 4 or higher. Participants expressed a high level of satisfaction with the visibility of teacher in the forums (4.56). This suggests a personal approach to teaching, and active participation of teachers in the discussion. In this way the assumption can be confirmed that availability and visibility of the teacher is considered as a positive by the students. In courses with a high number of participants per

course, the teacher cannot actively partake in all discussions; in this situation different solutions can evolve – volunteers that moderate forums, local study group, and so on.

In the VC course, most of the criteria were also rated above 4, with the exception of the virtual environment Moodle that has obtained the mark 3.94.

Some students also used the opportunity to provide comments and suggestions for improvement. These comments were classified into several categories as presented in table 2.

Table 2
SUGGESTIONS AND COMMENTS FOR IMPROVEMENT FROM STUDENTS OF THE ONLINE
COURSE INTRODUCTION TO PROJECT MANAGEMENT

Category	Proposals and Comments
Online platform (Moodle) - reliability, functionality, design	ensure that Moodle does not fail at very busy hours (3), provide notice that I have a response to my post (2), speed up loading of pages for slower internet connections (2), make the system clearer (4), the possibility of opening files over the phone (1)
Course material	better quality of written materials, easier handling of online lectures and nicer visuals (19), lectures in .ppt format should also be provided in the .doc format (2), more learning texts (4)
Video and audio teaching materials	more videos and webinars (11), improve the sound quality of the videos (6), webinars require the installation of new programs – this could be done in a more simple way (2), change the format of videos (15), organize discussions around them (4)
Content	more examples from practice (11), more interviews with practitioners (2), more tasks/work (1), more control tests (3), make topics more attractive (2), more case studies (3), stick to the topic (2), final test more demanding (1)
Course organization	smaller number of students (7), more transparency regarding the completion of the course (4), the duration of the course longer (3), increased interaction and guidance from the teacher (4), greater flexibility in testing (2), personal meetings or interactive online debate (2), clear tasks (1)

### 4 Discussion

The need for transparency, clear structure, appropriate navigation (towards every week's tasks, relevant texts in textbooks and assignment) can be seen as basic requirements of students in this mode of learning. If the student does not perceive the course structure as clear, if he or she does not see a way forward ("where from and where to?"), it can significantly reduce his/her motivation to continue studying. In this context, teachers have had good experience with so called "objectives of the week" – i.e. brief guidelines that summarize the activities to be done that week. Other tools can also provide similarly suitable navigation - whether traditional (syllabus) or modern (online comments,

announcements, updates). Daniel also emphasizes that in all online courses, students attach particular importance to the transparency and availability of information about the structure of the course (Daniel, 2014, p. 14).

The interest of students to receive the content in the form of video and audio recordings is another trend that is reflected in the comments of respondents (and partly also in the organization of the course examined). A webinar can be an even better tool because, in addition to video, it allows student involvement in the discussion. When using webinars, authors encountered a few technical issues on the side of students. Use of mobile devices makes content available to students even in "random" moments – situations when they initially were not intending to study. Students therefore naturally suggest that the course should provide greater volume of material in the form of video and audio recordings.

### Conclusion

The experience of foreign universities with a high number of students who are active at the beginning of the course and a later decrease in the participation rate was confirmed. To increase the participation levels and reduce the drop-out rates of students is the major challenge for nearly all online courses. Improvement in delivery modes – webinars, interactive videos and clear navigation can help in this respect.

When the online course is organized in an appropriate way, students do not consider the lack of personal contact as a serious problem. Dividing a large class into smaller teams (discussion groups) is beneficial. Also, the interaction with the teacher – when possible – is perceived as positive, and active participation of teachers or moderators in online forums is recommended.

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