Experiences with a MOOC-platform – Who are our learners and what do they think about MOOCs?

Philipp Leitner[1] and Martin Ebner[2]

[1] Graz University of Technology, Münzgrabenstraße 36/I, 8010 Graz, Austria
`philipp.leitner@tugraz.at`
[2] Graz University of Technology, Münzgrabenstraße 36/I, 8010 Graz, Austria
`martin.ebner@tugraz.at`

Abstract. iMooX, the first and currently only Austrian MOOC platform, has been hosting xMOOCs since 2014. Directly after the start a survey of the first three MOOCs was conducted and published in 2015. In the meantime, the MOOC platform contains more than 45 courses and serves many thousands of learners. Therefore, we are investigating, if there is a change towards the learners themselves, their expectations and experiences regarding learning with MOOCs as well as with the platform. Using the exact same survey as years before it can be shown that there are little changes in the right directions or maybe it can be concluded that learning with MOOCs became more common to a broader public, at least in the academic world.

Keywords: MOOC, survey, quantitative assessment

1   Introduction

Massive Open Online Courses (MOOCs) are a trend of the last decade (Chang et al, 2018). They represent a special form of online courses and are generally based on videos, reading materials, problem-solving including discussions in forums between teachers and students and quizzes for monitoring the acquisition of knowledge of the participants (Khalil and Ebner, 2016).

The name MOOC was introduced by Brian Alexander and Dave Cormier when referring to the course "Connectivism and Connective Knowledge" (CCKo8) held by Stephen Downes and George Siemens in 2008 (Phil Hill, 2012).

At the end of 2013, the first and only Austrian MOOC platform iMooX was founded by the University of Graz and Graz University of Technology (Ebner et al, 2017). The goal behind iMooX is to make academic and general content accessible to a broad public and empower them to extend their knowledge. In contrast to competitors in the US, all learning materials used in the courses of iMooX are exclusivly provided as Open Educational Resource (OER) under the Creative Common license. Thereby, the materials are free of charge and may be reused for the user's own (teaching) purposes.

In 2015, Neuböck et al. conducted a first analysis of iMooX participants and evaluated three courses held during the summer term of 2014 (Neuböck et al, 2015). The goal was to get to know the average MOOC participant as well as grasp his or her intention to participate in a course or even to complete it. Since then, continuous analysis of further MOOCs was made.

In this publication, we present the analysis of four courses in the German language (*Das Internet in meinem Unterricht? Aber sicher!*, *E-Learning & Recht – Urheberecht-Reboot*, *Gratis Online Lernen* and *Learning to Code: Programmieren mit Pocket Code*) held during the winter term 2017/18 and seven courses (*#MeKoMOOC18 Medienkompetenz in der Lehre*, *EBmooc-Digital Werkzeuge für ErwachsenenbilderInnen*, *Gesellschaftliche Aspekte der Informationstechnologie*, *MINT-Brueckenkurs Mathematik*, *Online-Kurs zu Open Educational Resources (COER18)*, *Programmieren mit Processing* and *Startup-Journey: Geschäftsmodell erstellen*) held during summer term 2018, and compare them to the findings of the previous study. Therefore, online surveys similar to those in 2015 were conducted in each of the MOOCs.

The four courses in the winter term 2017/18 were attended by 3,702 participants of whom 768 graduated with a completion rate from 7,85% up to 31,21% per course, whereas in the seven courses in the summer term 2018 7,582 participated and 1,804 graduated with a completion rate from 3,14% up to 50,76% per course. This gives a total of 11,284 participants with 2,572 graduates (22,79%). In order to get the certificate of participation, each participant had to fill out a questionnaire and thereby, evaluate the course and the platform. In general, the questionnaire consisted of 63 questions. In the winter term, 545 participants and in the summer term, 917 participants filled out the questionnaire, which results in total 1,462 completed questionnaires.

The following sections provide details on the typical user of iMooX of the winter term 2017/18 and summer term 2018.

2   Gender, Age and Education

In the winter term 2017/18, participants of iMooX courses were predominately female (65,50%) while in the summer term 2018, they were primarily male (61,94%). In total the gender of iMooX participants were nearly equally divided (see Fig. 1). In comparison to the study of 2015, iMooX was able to attract more female participants, probably due to the heterogeneity of the courses offered in 2018.
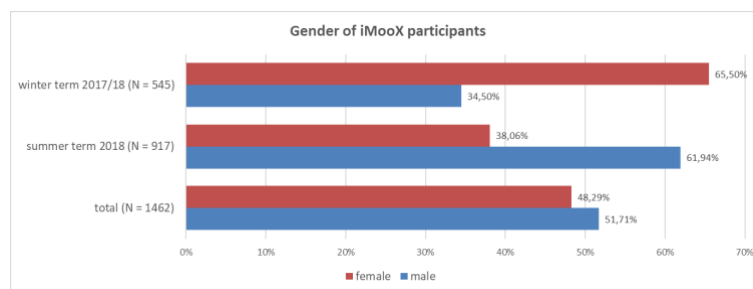

Figure 1 Gender of iMooX participants

The age of the typical iMooX user was between 20 and 34 years. Nevertheless, 23,90% of the participants were between 35 and 49 years old, and even 16,18% were between 50 and 64 years old. Only 3,44% were younger than 20 and merely 1,24%

were older than 65. Compared to the summer term 2014, this values stayed nearly the same, rather stable.

When taking a closer look at the educational level of the participants (see Fig. 2), most of them have a high school diploma (46,37%), obtained an academic (27,5%) or undergraduate degree (17,72%) or even have finished a PhD (3,76%).
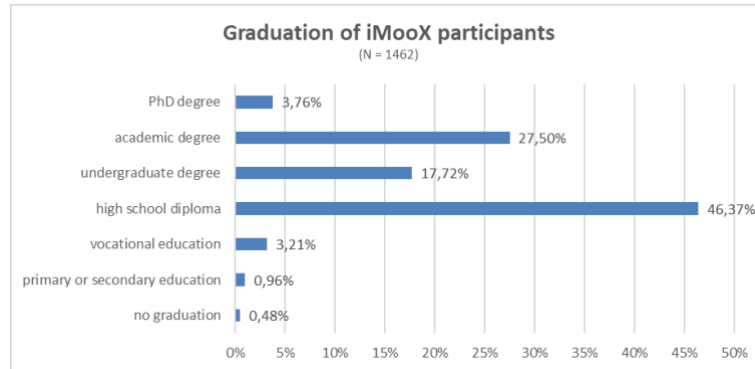

Graduation of iMooX participants
(N = 1462)

PhD degree	3,76%
academic degree	27,50%
undergraduate degree	17,72%
high school diploma	46,37%
vocational education	3,21%
primary or secondary education	0,96%
no graduation	0,48%

Figure 2 Graduation of iMooX participants

Keeping in mind that the courses *Gesellschaftliche Aspekte der Informationstechnologie* and *Startup-Journey: Geschäftsmodell erstellen* were intended for students, this result seems to fit quite well. Even though the content of the MOOC dealing with PocketCode was intended for children in primary as well as secondary education, the evaluation does not reflect that. This may be because of two reasons. First, teachers may have taken the course to prepare for their own lectures and download and use the material of the MOOC in their own classroom. Second, children probably did not want to participate in the final survey, so there might be a gap in the data.

Compared to the study of 2015, this distribution looks similar. Though, in the summer term 2014 the percentage of participants with an academic degree was higher.

3   Motives and Competences

The assessment of the motivation for course attendance of the iMooX participants was another part of the evaluation (see Fig. 3). Fortunately, the driving reason for participating in an online course at iMooX is the course subject (87,28%). Which in comparison to the study of 2015 got much more relevant. Using the courses as a training supplement comes second with 75,44% agreement. Additionally, getting the confirmation of attendance (71,61%) and gaining experience (71,27%) were important to the participants.

A little less relevant, but still essential for the majority, were using the course for additional training (63,34%) or as a job supplement (63,13%) as well as for their professional activities (61,76%). Slightly above the 50% mark was the interest in online course design with 53,15%. Less relevant for motivation were the lecturers (44,66%)

or the attention because of friends, colleagues and acquaintances (43,78%). Although, these two increased by more than 20% since the 2015 study.

The evaluation shows that place of residence (28,39%), care obligation (19,97%), reorientation (18,13%) and a handicap (6,16%) were mostly insignificant for the motivation of the participants.
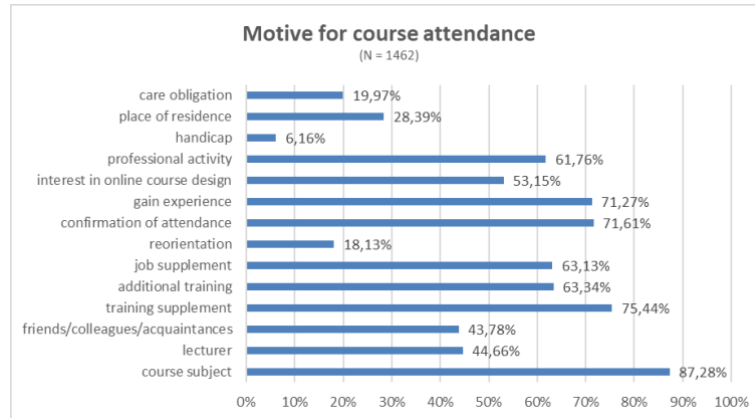

Figure 3 Motive for course attendance

When asked about the competences necessary for completing the course (see Fig. 4, the results indicate that the ability to learn independently (73,94%) is of high importance. Followed by the hunger for knowledge and education with 70,31% and the ability to organize oneself (66,35%). Furthermore, dealing with new media and computer-aided learning seems to be challenging for the participants (59,78%). The ability to communicate online was the least necessary competences for completing a course (45,21%).
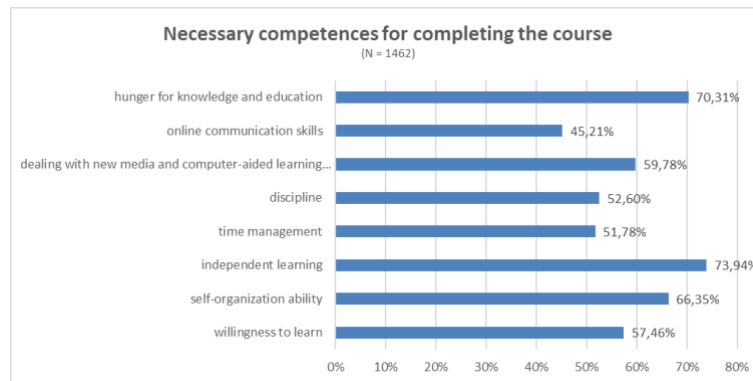

Figure 4 Necessary competences for completing the course

4   Evaluation of platform and courses

Besides the characteristic of iMooX users, the evaluation of the platform and its courses is insightful. The satisfaction of the participants with the platform is very high and, in comparison to the study of 2015, it has even improved quite a bit. On all asked questions, the iMooX platform was rated remarkable good, with no single point being below 86% (see Fig. 5).
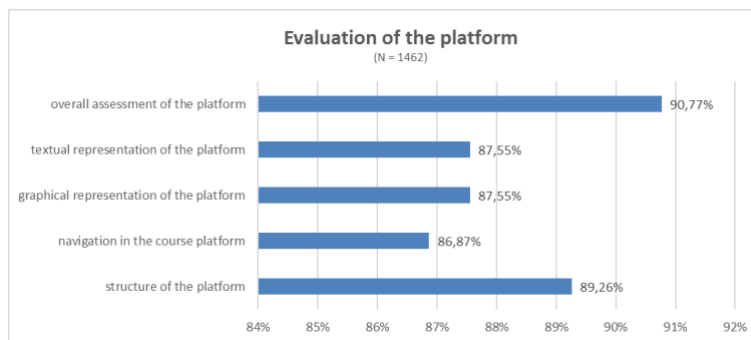

Figure 5 Evaluation of the platform

The overall assessment of the platform received the best result with 90,77%. Nonetheless, the structure of the platform was not far behind with 89,26%. Textual and graphical representation got both 87,55%. Thereby, the graphical representation of the platform improved a good deal, compared to the study of 2015, were the satisfaction rate only reached 75%. Last but not least, the course navigation received a score of 86,87%.

The evaluation of courses was also quite impressive (see Fig. 6). Again, the overall assessment (87,35%) and the structure and outline (87,96%) of courses got the best results. Though, this time the structure and outline finished first. The evaluation of the preparation, selection of objectives, spacing, time scope and navigation all received around 84%.
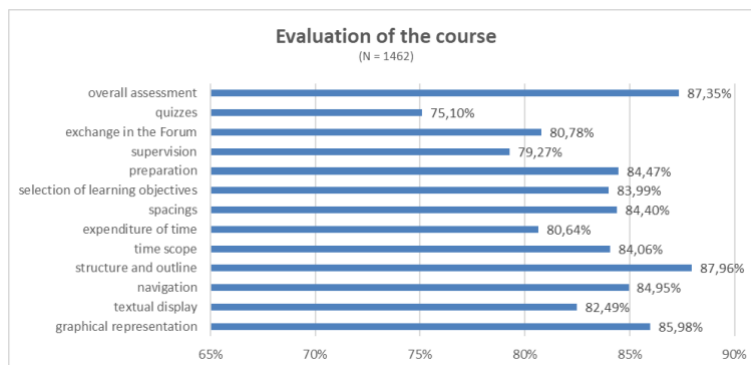

Figure 6 Evaluation of the course

In 2014, the support and supervision got the worst result with 52%. This has been improved quite well with a rating of 79,27%. Although, the quizzes (75,10%) got a better result than 2015, where it got 66%, it did not improve as much as the others. Therefore, it seems that a revision could pay off.

All in all, the evaluation of the iMooX platform and its courses were rated by the majority of the participants with excellent marks.

5   Conclusion

In this paper, we evaluate the characteristic of iMooX users as well as the iMooX platform itself for the years 2017 to 2018. Further, a comparison to an earlier study is carried out and highlighted how the participants rated the current version of our MOOC platform compared to the previous version. The results show that we were able to improve iMooX considerably.

In conclusion, we can state that the typical iMooX user is between 20 and 34 years of age and has obtained a high school diploma or even an academic degree. In contrast to the summer term of 2014 when the typical user was male, now the participants are equally divided between sexes. The main reason for participating in an online course at iMooX is the course subject, followed by using the course as a training supplement, get the certificate of attendance and to gain experience with MOOCs.

Additionally, the iMooX platform and its courses were rated remarkably well. Next to the overall assessment, especially the good structure was emphasized.

In the future, we are going to continue evaluating and improve our MOOC platform. Additionally, we plan to use quantitative information about the behavior of the participants to enhance and better understand the knowledge gained out of our surveys.

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