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# Understanding Learners' General Perception Towards Learning with MOOC Classmates: An Exploratory Study

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**Abstract**

In this work-in-progress, we present our preliminary findings from an exploratory study on understanding learners' general behavior and perception towards learning with classmates in MOOCs. One-on-one semi-structured interview designed with grounded theory method was conducted with seven MOOC learners. Initial analysis of the interview data revealed several interesting insights on learners' behavior in working with other learners in MOOCs. We intend to expand the findings in future work to derive design implications for incorporating collaborative features into MOOCs.

**Author Keywords**

Massive Open Online Courses; MOOCs; Online Learning; Collaborative Learning; Learning Behavior

**ACM Classification Keywords**

H.5 [Information Interfaces and Presentation] (e.g., HCI); K3.1 [Computer Uses in Education]: Collaborative Learning; J.4 [Social and Behavioral Sciences]

## Introduction

Extended Massive Open Online Course (xMOOCs), or just MOOCs as we know now, is an online learning environment based primarily on the instructivist approach, featuring video lectures, quizzes, assignments, and exams as primary learning activities, with discussion forums to support collaborative learning and social interaction. Since its introduction in 2011, MOOCs has attracted millions of learners worldwide, and has been touted as the next disruptive innovation in the education sector [10].

One of the primary issues with MOOCs at the moment is the low learner engagement and retention, resulting in a very high dropout rate across different courses [11]. Incorporating effective collaborative learning into the learning environment has been shown to improve student engagement in previous contexts such as CSCL and physical classroom [1,7]. Motivated by the prospect, there has been a lot of work studying the use of existing collaborative learning features such as forums [3,6] and synchronous group discussions [2,4,8] in MOOCs. While these works have demonstrated respective benefits in MOOCs that were originally found in physical classroom and CSCL settings, most of them found mixed results in improving learners' engagement, retention, grades, and sense of community, suggesting that a major rethinking and redesigning of collaborative features in MOOCs might be necessary.

To provide some preliminary insights and initial direction on redesigning collaborative features in MOOCs, in this work-in-progress we conducted an exploratory investigation on MOOC learners' general perception and behavior towards learning with MOOC

classmates from a qualitative standpoint. Based on our knowledge this is the first study to investigate this problem in the MOOC context. In the following sections, we present our study methodology followed by the preliminary findings.

## Methods

### *Participants*

Seven participants (mean age = 30,  $\sigma = 5$ ) with tertiary education and completed at least 1 MOOC were recruited through snowball sampling method. We only recruited participants with a tertiary degree since they are likely to have participated in collaborative activities both outside and inside the classroom. At the same time, we also recruited participants who have completed a MOOC since they are more likely to have engaged in collaborative activities (forums, social network, chats) in MOOCs.

#	Age	Nationality	Gender	Occupation
P1	38	Canada	Male	Faculty
P2	25	China	Male	Research Staff
P3	25	Netherlands	Male	Designer
P4	27	South Korea	Male	Grad Student
P5	30	South Korea	Male	Grad Student
P6	35	US	Female	Faculty
P7	28	Phillipines	Male	UX Researcher

**Table 1.** Demographic Information of Participants.

Recruited participants were asked to provide demographic data (e.g., gender, occupation, country of origin) and experience on MOOCs (e.g., completed and uncompleted course and etc.) using Google Form before the interview (see Table 1). The primary objective of the pre-study survey was to understand

the participants' background and experience in MOOCs before the study.

#### *Study Design and Protocol*

To obtain a deep understanding of learners' perception towards learning with classmates in MOOCs, a semi-structured one-on-one interview methodology was adopted in our study. Since the study was exploratory in nature, we employed the grounded theory method in the interview throughout the investigation [9]. Each interview was conducted after the participants have completed the demographic survey and been briefed on the objectives of the study. Since participants could carry different ideas about collaborative learning, we explained our definition of collaborative learning derived from [5] as "a learning process where two or more people work together to create meaning, explore a topic, or improve skills" in the beginning of the interview.

During the interview, we first asked participants to describe their experiences in learning with classmates in schools and universities. Participants were told to share some of the real life practices, frustrations, and concerns. After describing their real life experiences, we proceeded to interview their experiences in MOOCs. Focuses of the interview were allocated on understanding their perceptions, attitudes, behaviors, and user experiences on collaborative features in MOOCs.

#### *Data Collection and Analysis*

On average, each one-on-one interview lasted between 90 minutes to 2 hours. The conversations were recorded through audio and written notes were made during the interview. Data from the interviews were

transcribed and coded to establish concepts and categories recurring in the interview.

#### **Preliminary Findings**

In this section, we present our findings from the first stage of data collection and analysis from the 7 interviews we conducted.

Most participants we interviewed were not optimistic towards the usefulness of collaborative learning on the learning objectives in MOOCs. Participants felt that the learning in MOOCs focuses on critical thinking skills and is not targeted towards communication & teamwork skills. Besides, three participants thought that face-to-face discussion takes a lot of time, and felt they have no time to engage in social learning activities in general. However, using forums was perceived to save more time. While participants felt that peer learning could be useful, they are reluctant to spend time in coordinating peer activities as well as restricted by the schedule set by these activities.

Participants opined that having the right amount of peer pressure from collaborative learning activities and social interactions could motivate themselves to complete the course. Two participants suggested that the ability to compare their progress with their peers adds positive pressure to continue learning. Apart from peer pressure, classmates' knowledge level in MOOCs was brought up in many occasions during the interviews. Participants told us that the knowledge and skill level of their classmates is important and has to be at some level with the learners in order to grow as a group in face-to-face discussions.

## Conclusion

In conclusion, our initial analysis has revealed several interesting preliminary insights on learners' behavior and perception towards learning with other classmates in MOOCs. In the future we intend to conduct subsequent rounds of analysis as well as a more systematic investigation to derive guidelines for redesigning collaborative features that take MOOC learners' expectations and assumptions into account.

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