Predicting Learner-Centered MOOC Outcomes: Satisfaction and Intention-Fulfillment

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Introduction

• Lifelong learning received extensive support from recent technological developments such as online learning in general, and MOOCs in particular (Kalz, 2015).

BUT, there is a lot of criticisms of MOOCs -
• high drop-out rates
• MOOCs completers are mainly experienced learners with a strong academic background
Suggesting a new, more appropriate success measures for MOOC participation

• Is “completion rate” appropriate as a measure for evaluating the success while using OERs?

• Completion rate is a:
  • Success criterion borrowed from formal education contexts
  • Satisfying the learning outcomes defined by the instructor
  • Do students enroll in courses with the goal of completing them?

• Rather, students may enroll in MOOCs for a variety of reasons, and MOOC participants may have a variety of learning outcomes.
Life-long-learning
Learning isn`t one-size-fits-all
Lifelong learning in MOOCs should be evaluated not through traditional, instructor-focused measures, but rather through more learner-centered measures.

- Success of lifelong learning in MOOCs should be evaluated not through traditional, instructor-focused measures such as completion rates.
- but rather through more learner-centered measures such as learner satisfaction and the fulfillment of learner intentions.
Learner satisfaction

• Subjective criteria
• Reflects students' perception of their learning experience (Kuo, Walker, Schroder, & Belland, 2014)
• Defined as a student’s overall positive assessment of his or her learning experience (Keller, 1983).
• Positively correlated with post-secondary student success (Chang & Smith, 2008), and the intention to use e-learning (Liaw & Huang, 2011; Roca, Chiu, & Martínez, 2006).
Learner intention-fulfillment

• Emerges as a promising success measure of distance education and MOOCs

• Takes into account the learner`s personal objectives, rather than external success criteria (Henderikx et al., 2017).

• Participants do not need to earn a certificate nor participate in all learning activities in order to feel that they fulfilled their internals goals.
Research goal

• The goal of this study is to identify key factors contributing to MOOC participants’ course satisfaction and intention-fulfillment.

• We examine how these two dependent variables are predicted by:
  • Personal learner characteristics (demographic characteristics, previous experience with MOOCs)
  • Learner dispositions (self-regulated learning, course outcome beliefs)
  • Learner behaviour in the MOOC (e.g. number of lectures accessed, number of quizzes completed)
  • Perceived course usability (e.g. ease of navigation, website usability).
Research model

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Method

• Participants

• Assessments and Measures

• Data analysis
Participants

• Participants in a nine week MOOC of the Open University in Israel in mid 2015
• Of 2,007 participants who enrolled to the course 125 (6.2%) participants took part in the three stages of the study.
• Age ranged from 18 years old to 85 (M = 61, SD = 14.01).
• 56% male and 44% female.
• Highly skilled internet users (M = 6.23, SD = 0.65)
• 63.7% reported that this MOOC was their first online learning experience.
Data collection and Measures

Three stages of data collection:
1. Pre-course questionnaire
2. Behavioural data collected from log-files
3. Post-course questionnaire.

The pre-questionnaire:
- Demographic
- Course outcome beliefs
- Online SRL
Behavioural measurements

Extracted from the log file of the course.

(A) # video lectures that the participant accessed.
(B) # quizzes that the participant accessed.
(C) # forums that the participant accessed.
(D) The duration of time taking the MOOC.
(E) Total number of MOOC activities.
(F) Whether the participant received a certificate of completion.
Post-questionnaire

- Perceived course usability
- Course satisfaction (DV)
- Intention-fulfillment (DV)
Prediction of course satisfaction and intention-fulfilment with SEM analysis
Discussion and conclusions

Research goal:
To better understand the predictors of two important learner-centered outcome measures of success in MOOCs: learner satisfaction and learner intention-fulfillment.

Method:
Using educational data mining and learning analytic techniques to understand how participants` demographics, their outset variables when entering the course, their actual behaviour in the course and their perceived course usability predict the two learner-centered outcome variables.
Few thoughts about the future

• More use of learning analytics
  • How we collect data?
  • How we analyze the data?
  • How we analyze the learning Processes?
  • What we are doing with the results?

• Improving the use of OERs

• Higher level of personalize learning

• Changing the structure of higher education
Thank you.

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