EXPLORING INSTRUCTORS' PERSPECTIVES ON THE USE OF GAMIFICATION IN MOOCS

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INTRODUCTION

- Challenges of Massive Open Online Courses (MOOC)
  - Low retention rates
  - Low completion rates
  - Engaging learners in a system with inherent feedback and interaction limitations between the instructor and the large number of participants
- Gamification as a way to increase interactions and engagement

LITERATURE REVIEW

- Studies have proposed gamification as one way to alleviate the problem of low engagement and low completion rates of MOOCs.
  - Chang & Wei (2016)
  - Antonaci, Klemke, Kreijns, & Specht (2018)
  - Klemke, Eradze, & Antonaci (2018)
  - Romero-Rodríguez et al. (2019)

LITERATURE REVIEW

- Previous research shows that applying gamification strategies in MOOCs could increase student engagement and course completion rates.

PURPOSE OF THE STUDY

- The present study explored instructors' perceptions, interests, self-efficacy, perceived barriers, and support needs regarding the use of gamification in MOOCs.
1. How do MOOC instructors perceive the potential of gamification?
2. What are the perceived barriers to gamifying MOOCs?
3. What types of supports and resources do MOOC instructors need to gamify their MOOCs?

METHODS

- This study used a sequential mixed-methods design (Creswell & Plano-Clark, 2017).
- Data collection
  - Online survey – 107 participants
  - Follow-up interviews – 11 participants
  - Reviews of the MOOCs of the interviewees
- Data analysis
  - Descriptive statistics
  - Mann-Whitney U tests
  - Thematic analysis methods

RESULTS: PART 1

- **Interest:** 73% showed interest in gamification.
- **Perceptions of gamification**
  - Quantitative data – Means mostly between 5.00 and 6.50.
  - Qualitative data - Three major groupings: (1) very positive, (2) positive but unsure, and (3) skeptical.
  - Majority of participants believed that gamification has the potential for education overall, and, for MOOCs, specifically.
  - A few participants were admittedly more skeptical about gamification and did not want to gamify their MOOCs

RESULTS: PART 2

- **Age:**
  - Younger participants (Mdn = 5.50) had higher self-efficacy than older MOOC instructor participants (Mdn = 3.00) in terms of gamifying their MOOCs (U = 1011.5, p = .033).
  - Younger participants (Mdn = 5.50) were more positive than older participants (Mdn = 5.00) about the potential of gamification to increase the learner-instructor interaction (U = 1029.5, p = .043).
  - Younger participants (Mdn = 7.00) were more positive than older participants (Mdn = 6.00) about the potential of gamification to increase the course completion rate (U = 1006.5, p = .030).

RESULTS: PART 3

Prior experience:
- MOOC instructor participants who had prior experience with gamification (Mdn = 8.00) had higher interest in gamifying their MOOCs than those without prior experience (Mdn = 5.00) (U = 756.0, p = .008).
- Participants with prior experience (Mdn = 7.00) also had higher self-efficacy than those without prior experience (Mdn = 3.00) (U = 193.0, p = .000).

RESULTS: PART 4

Purposes of gamification
- Most MOOC instructor participants (73%) showed interest in gamification and indicated that they would consider in their future MOOCs.
- Wanted to gamify their MOOCs to increase social interactions (91.6%) and student retention (85%).
- More than half of them would gamify their MOOCs to enhance student learning (52.3%).

RESULTS: PART 5

1. Perceived barriers.
2. Lack of time.
3. Limited knowledge and experience.
4. Lack of funding.
5. Lack of fit between gamification and course content.
6. Concerns regarding students' perceptions or acceptance.
7. Concerns regarding negative effects of gamification.

RESULTS: PART 6

Support needs:
- Time and funding
- Expert guidance
- Examples
- MOOC platforms
- IT/media support

DISCUSSION

- Helping MOOC instructors develop an accurate understanding of gamification and its potential might be the first step needed in the effort of gamifying MOOCs.
- Age and prior experience appeared to be critical factors relating to MOOC instructors' perceptions of gamification.
- Although younger instructors are generally more familiar to publish and engage in scholarly activities which count toward tenure and promotion.
- Positive experience with gamification or concrete examples of successfully gamified MOOCs can have positive influence on MOOC instructors' perceptions and attitudes toward gamification.

DISCUSSION

- Given the challenges related to low engagement, high dropout rates, and low completion rates in MOOCs, it is wise to use gamification to facilitate social interactions and community building.
- Previous research on gamification in MOOCs has focused on identifying gamification mechanics suitable for MOOCs. Future research should focus more on developing guidelines for MOOC instructors.

LIMITATIONS

- Many MOOC providers, e.g., xuetangX in China, not included.
- Instructors whose MOOCs in English were included.
- The survey and interview participants in this study were volunteers.
- Response rate of survey was 7.5%, low but still acceptable for an survey (Cho & LaRose, 1999).
- The survey instrument related to MOOC gamification was developed for this specific study.

FUTURE RESEARCH

- Focus more on developing guidelines for gamifying MOOCs for difference conditions.
- Provide detailed descriptions of the course context and gamification strategies to help other researchers and MOOC instructors understand what strategies work in different conditions and content areas.
- Focus on MOOCs in other languages to capture insights of adopting gamification in MOOCs worldwide.

STUDY SIGNIFICANCE

- Study offers a better understanding of instructors' interests, self-efficacy, perceptions, perceived barriers, concerns, and support needs regarding the gamification in MOOCs.
- Provides useful insights and recs into what to consider when gamifying MOOCs as well as how to support MOOC instructors or instructional designers in gamifying MOOCs.