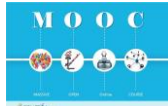


MOOC Instructor Experiences and Pedagogical Choices: Some Instructional Design Considerations and Challenges

Meina Zhu, Curtis J. Bonk, and Annisa Sari
IST Department, Indiana University
March 2, 2018



2 10/19/2017

January 18, 2018

By The Numbers: MOOCs in 2017
Dhawal Shah, Class Central



3

February 14, 2018

MOOCs: Fewer New Students, but
More Are Paying

Doug Lederman, Inside Higher Ed

CLASS CENTRAL



78M

Students



800+

Universities



9.4k

Courses

By the Numbers: MOOCs in 2017

4

January 22, 2018

A Product at Every Price: A Review of MOOC Stats and
Trends in 2017
Dhawal Shah, Class Central

Providers

CLASS CENTRAL

Top 5 MOOC Providers

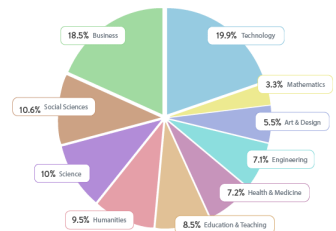


By the Numbers: MOOCs in 2017

5

CLASS CENTRAL

Course Distribution by Subject



By the Numbers: MOOCs in 2017

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Research Background

- MOOCs can be beneficial to both learners and instructors (Hew & Cheung, 2014)
- Instructional design is critical for online learning (Johnson & Aragon, 2003; Phipps & Merisotis, 1999), including MOOC
- Instructors are one of the five main components of MOOCs; the other four are learners, topic, material, and context (Kop, 2011)
- Few studies have examined instructional design from MOOC instructors' perspectives (Margaryan et al., 2015; Ross, Sinclair, Knox, Bayne, & Macleod, 2014; Watson et al., 2016)

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Research Background

Zhu, M., Sari, A., & Lee, M. M. (2018). A Systematic Review of Research Methods and Topics of the Empirical MOOC Literature (2014-2016). The Internet and Higher Education.

Research methods used in each research topic (out of 146 studies)

	Quantitative	Qualitative	Mixed methods
Student-focused	39	9	26
Design-focused	19	12	17
Context and impact	9	6	5
Instructor-focused	0	3	2

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Research Purposes & Questions

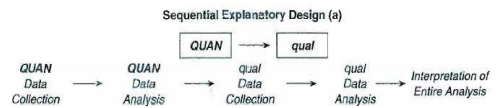
Research Questions:

1. What are the design considerations of instructors when designing MOOCs?
2. What challenges do instructors perceive when designing MOOCs?
3. How do instructors address the challenges that they perceive related to MOOCs?

9

Research Methods-Design

- Sequential mixed methods design (Creswell & Clark, 2007)



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Research Methods (Zhu, Bonk, & Sari, in review)

- **Data Collection:**
 - survey, interview, and course review
- **Participants:**
 - 143 survey participants (10% response rate) and 12 interviewees

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Research Methods

MOOC instructors interviewed

No.	Countries	Subject areas	Platforms
1.	The U.S.	Language and Literacy	Coursera
2.	The U.S.	Education	Coursera
3.	The U.S.	Education	Canvas
4.	The U.S.	Chemistry	Coursera
5.	UK	Public health	FutureLearn
6.	UK	Language and Literacy	FutureLearn
7.	Hong Kong	Math	Coursera
8.	Mainland China	Math	Coursera
9.	Canada	Psychology	Coursera
10.	Australia	Public Health	Open2Study
11.	Sweden	Computer Science	edX
12.	India	Management	edX

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Data Analysis

RQs	Data Sources	Data analysis
RQ1	Survey-multiple-choice questions	Descriptive statistics
	Survey-open-ended questions	Content analysis (Elo & Kyngäs, 2008)
	Interview	Content analysis
	MOOC review	Content Analysis
RQ2	Survey-multiple-choice questions	Descriptive statistics
	Survey-open-ended questions	Content analysis
	Interview	Content analysis
	MOOC review	Content Analysis
RQ3	Survey-multiple-choice questions	Descriptive statistics
	Interview	Content analysis

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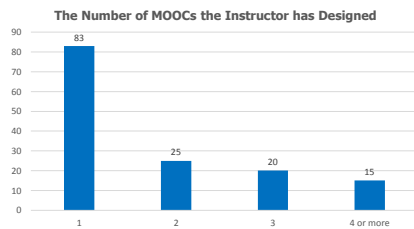
Analytical Framework

Alario-Hoyos, Pérez-Sanagustín, Cormier, and Kloos' (2014) MOOC design considerations

Design considerations	Example (Alario-Hoyos et al, 2014)
Resources	Technology resources and human resources
Pedagogy	Motivate students, participatory learning, and collaborative community etc.
Logistics	Time required while planning MOOCs and peer assessment

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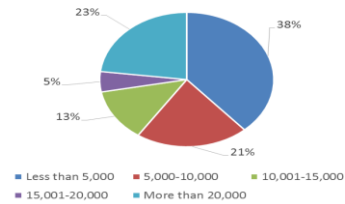
Demographic Information



15

Demographic Information

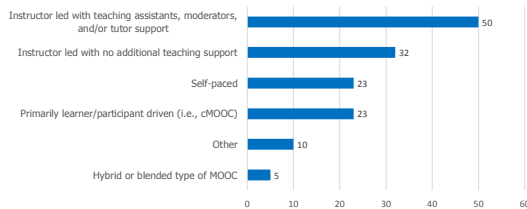
The Number of Learners Enrolled in Recent MOOC



16

Demographic Information

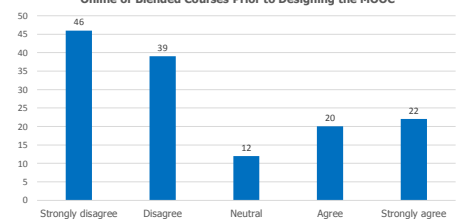
MOOC Delivery Format



17

Demographic Information

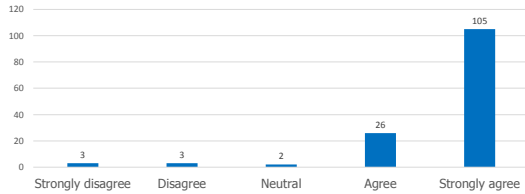
I Have Many Prior Experiences Related to Designing Full Online or Blended Courses Prior to Designing the MOOC



18

Demographic Information

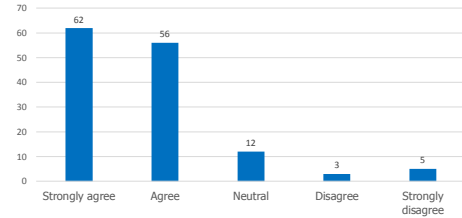
I was Fully Involved in Designing the Course Content for the MOOC



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Demographic Information

I enjoyed very much designing the MOOC

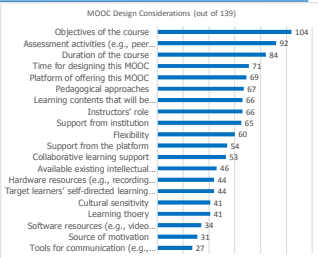


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Findings

RQ #1. What are the design considerations of instructors when designing MOOCs?

- Learning objectives
- Assessment
- Time for designing MOOC
- Engaging learners



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Findings

- Engaging learners

One instructor from the UK mentioned:

"When we were designing, we tried to **have a hook** for each week, a reason for learners to come back each week. So, we built that into our learning design. So what's going to be the big thing that makes you want to join the course in Week One."

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Findings

RQ #1-1. How do MOOC instructors design the course to encourage interaction among learners?

- Asynchronous discussion forums
- Pair-based types of tasks
- Social media

Peer interaction encouraged in MOOC (out of 136)



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23

Findings

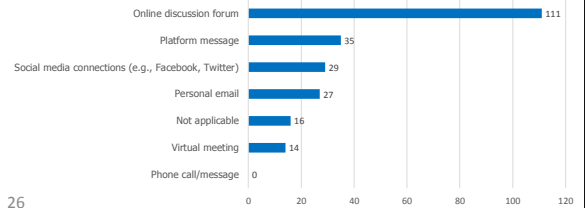
RQ #1-2. How do MOOC instructors design the course to encourage interaction between instructor and learners?

- Online discussion forums
- Platform messages
- Social media connections

25

Findings

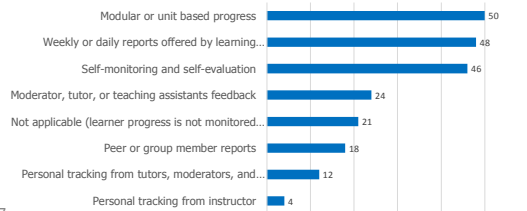
Instructor-learner interaction encouraged in your MOOC (out of 136)



26

Findings

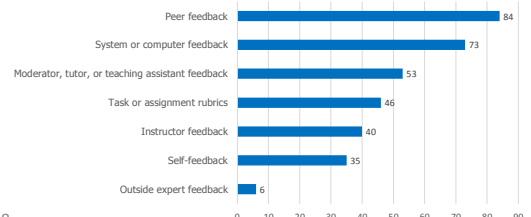
Ways to monitor learners' learning



27

Findings

Ways that learners get feedback

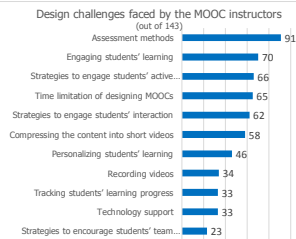


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Findings

RQ #2. What challenges do instructors perceive when designing MOOCs?

- Assessment methods
- Engaging students' learning
- Time limitation



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Findings

- Time limitation

One instructor mentioned:

"I think one of the challenges is time. It does take a lot of time to get the videos done. **I did not get a course release** when I was doing, and it was a side project at the same time as my regular load. I think it gets to be concentration and balance about what's going on."

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Findings

RQ #3. How do instructors address the challenges that they perceive related to MOOCs?

- Explore other MOOC examples
- Seek help from the platform/Colleagues/institutions



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Findings

- Team work

Teamwork. It was amazing to have such support on the development side. There was never a time where I wrote a script for a MOOC. It was like: "OK. Let's go with this." There was always a discussion...We think examples to clarify that for visual learners or learners who respond better to auditory cues. So the challenges were never greater than the team here.

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Discussion and Conclusions

- The **pedagogical factors** were the primary design considerations and challenges in MOOC design (Watson, S. L., Loizzo, J., Watson, W. R., Mueller, C., Lim, J., & Ertmer, P. A., 2016).
- The **assessment** and **engagement** strategies are the main considerations as well as challenges (Hew & Chung, 2014).
- The **time limitation** of creating MOOCs was the primary logistical consideration (Hew & Chung, 2014; Watson et al., 2016).

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Limitations

- Limited to MOOCs which are mainly delivered in English
- Volunteer bias
- Only review 12 MOOC Courses

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Implications

- For MOOC instructors:
 - May inform them about what other instructors are most concerned with and tend to target in MOOC design as well as their efforts in addressing the possible design challenges.
- For instructional designers:
 - May help them in the consulting process.

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Future Studies

- Assessment design
- Engaging activity design
- Course design that supports self-directed learning
- Further observations and analyses are needed to better understand how MOOC instructor design and deliver their MOOCs to encourage online interaction and learner success.

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Thank you!

Questions and Comments...

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MOOC RESEARCH