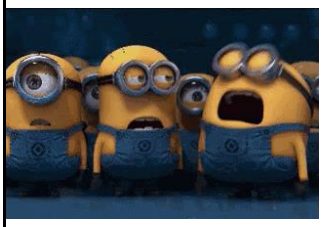
MOOC Instructor Research: Motivations, Considerations, and Personalizations in the Design of Instruction for the Masses

Curtis J. Bonk
Indiana University
cjbonk@Indiana.edu

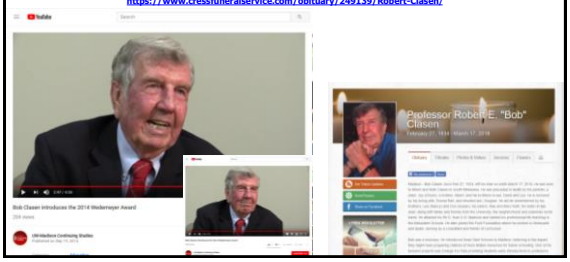
Poll #1: Who in here has taken a MOOC?
Poll #2: Are you happy or frustrated when you take a MOOC?



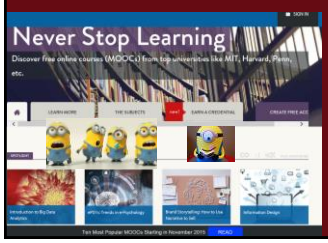
The World of Open Education

September 19, 2014

Story #1…I am a product of distance learning…
Bob Clasen, University of Wisconsin
https://www.youtube.com/watch?v=kCm1_MGaqec&feature=youtu.be
February 27, 1934-March 17, 2018
https://www.cressfuneralservice.com/obituary/249139/Robert-Clasen/

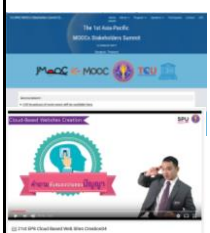


Some Weird Things Going On…



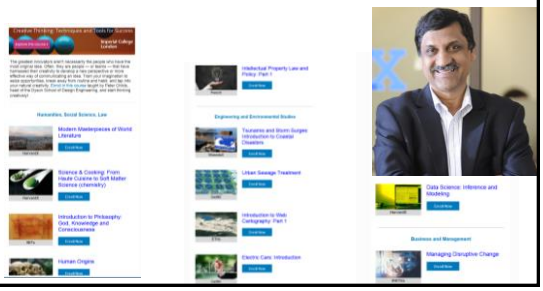
Weirdness #1…
June 15, 2017

Massive List of MOOC Providers Around The World, Class Central
JMOOC, K-MOOC, and T-MOOC?
https://www.class-central.com/report/mooc-providers-list/



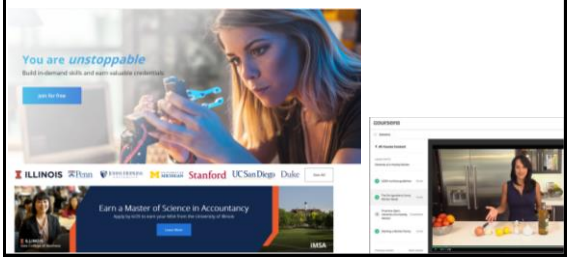
Weirdness #2…
Email inbox: June 10, 2018
edX (Summer discounts)

https://www.edx.org/course



Weirdness #3…
Email inbox: June 11, 2018
Coursera

https://www.coursera.org/



Weirdness #4…
September 26, 2018
The Future of Professional Credentialing … in an Engagement Announcement

Joshua Kim, Inside Higher Ed

https://www.insidehighered.com/digital-learning/blogs/technology-and-learning/future-professional-credentialing-engagement

The future bride graduated from University of Vermont with a bachelor's degree in anthropology and is currently pursuing a master's degree in public health. She is employed as a care navigator with Apple.

*The future groom graduated from Worcester Polytechnic Institute with a bachelor's degree in mechanical engineering and is currently pursuing a master's degree in mechanical engineering. He has been accepted in the **Harvard Business HBX CORe program** and plans to start in November. He is currently working as a technical program manager at Apple.*

They are planning on a summer wedding in 2020.

INSIDE HIGHER ED

Weirdness #5…April 20, 2015
250 MOOCs and Counting: One Man's Educational Journey, Chronicle of Higher Education

http://chronicle.com/article/250-MOOCsCounting-One/229397/?cid=at

If the MOOC movement has faded, nobody told Jima Ngei. Mr. Ngei, who lives in Port Harcourt, Nigeria, has completed and passed 250.

Jima Ngei: "I had this unrelenting fear that this miracle of free access might evaporate soon."

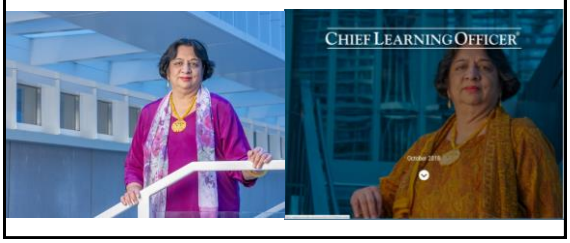
Weirdness #6…Chapter 15: Learning about MOOCs by Talking to Students
Charles Severance, University of Michigan

Figure 3. Internet History, Technology, and Security on the Coursera Platform.

Weirdness #7…October, 2018
Teaching the World

Sarah Fister Gale, CLO

https://magazine.clomedia.com/issue/october-2018/teaching-the-world/
https://magazine.clomedia.com/issue/october-2018/



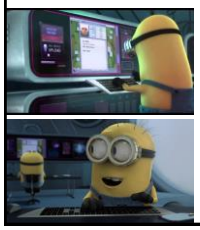
Weirdness #8…(MOOCs are not dead!)

May 21, 2018

The Second Wave of MOOC Hype Is Here, and It's Online Degrees

Dhawal Shah, Class Central

https://www.edsurge.com/news/2018-05-21-the-second-wave-of-mooc-hype-is-here-and-it-s-online-degrees



September 12, 2018

Coursera's CEO on the Evolving Meaning of 'MOOC'

Dian Schaffhauser, Campus Technology

https://campustechnology.com/articles/2018/09/12/courseras-ceo-on-the-evolving-meaning-of-mooc.aspx

Jeff Maggioncalda, Coursera CEO

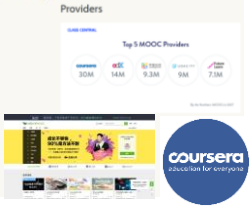
Weirdness #9…January 22, 2018

A Review of MOOCs Stats and Trends in 2017, Dhawal Shah, Class Central

https://www.class-central.com/report/moocs-stats-and-trends-2017/

Here is a list of the top five MOOC providers by registered users:

1. Coursera — 30 million users.
2. edX — 14 million users.
3. XuetangX — 9.3 million users.
4. FutureLearn — 7.1 million users.
5. Udacity — 5 million users.



Weirdness #10…August 7, 2017

FutureLearn and Coventry University to Roll Out 50 Online Degrees (Last year Deakin University announced a similar partnership with FutureLearn)

Class Central, Dhawal Shah

https://www.class-central.com/report/futurelearn-coventry-university-roll-50-online-degrees/

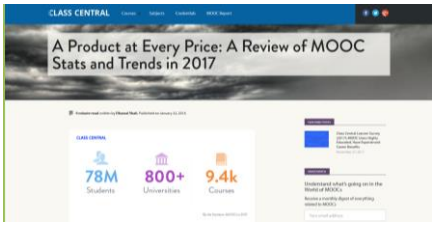
Degree	Provider	University	Cost
MS Computer Science	Udacity	Georgia Tech	$6,600
MS Analytics	edX	Georgia Tech	$10k
MBA	Coursera	University of Illinois	$22k
MS CS Data Science	Coursera	University of Illinois	$19.2k
MS Accounting	Coursera	University of Illinois	$27.2k
Masters in Innovation and Entrepreneurship	Coursera	HEC Paris	€20k
Cyber Security (Masters)	FutureLearn	Deakin University	£24k
Development and Humanitarian Action (Masters)	FutureLearn	Deakin University	£24k
Professional Practice: Information Technology (Masters)	FutureLearn	Deakin University	£24k

MOOC Trends and Recent Data

January 22, 2018

A Review of MOOCs Stats and Trends in 2017, Dhawal Shah, Class Central

https://www.class-central.com/report/moocs-stats-and-trends-2017/

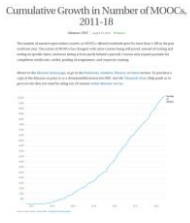


August 19, 2018

Cumulative Growth in Number of MOOCs, 2011-18

Almanac 2018, Chronicle of Higher Education

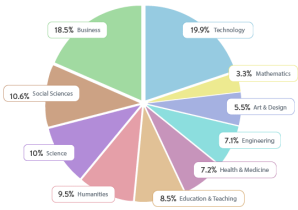
https://www.chronicle.com/article/Top-5-MOOC-Providers-by-Number/244090?cid=cp216



Subject areas (January 22, 2018)

CLASS CENTRAL

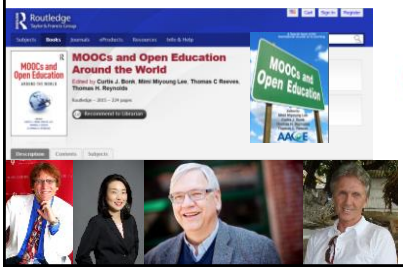
Course Distribution by Subject

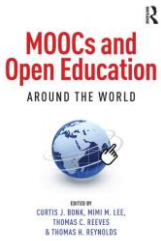


By the Numbers: MOOCs in 2017

MOOCs and Open Education Around the World (2015)

http://moocsbook.com/





Chapter 1: The MOOC Misstep and the Open Education Infrastructure

David Wiley, Co-founder and Chief Academic Officer, Lumen Learning

The Open Education Infrastructure

1. **Open Credentials**
2. **Open Assessments**
3. **Open Educational Resources**
4. **Open Competencies**

Chapter 8: MOOCs Downunder: Insights from the Open2Study Experience

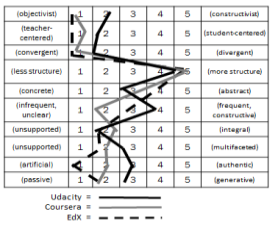
Maggie Hartnett, Mark Brown, and Amy Wilson
Massey University, Dublin City University, and Massey University

Figure 3: Example of the Indigenous Studies subject

Chapter 10: MOOC Pedagogy AMP: A Tool for Characterizing the Pedagogical Approaches of MOOCs

Karen Swan, Scott Day, Leonard Bogle, and Traci van Prooyen
University of Illinois Springfield

Figure 3. Ratings Metaphors



Chapter 13: Unbundling Higher Education and the Georgia Tech Online MS in Computer Science: A Chronicle

Richard DeMillo

Chapter 14: Creating a Temporary Spontaneous Mini-Ecosystem through a MOOC

Paul Kim and Charlie Chung, Stanford University

Figure 2. Twitter thread announcing the MOOC

May 20, 2016
Chapter 18: COL

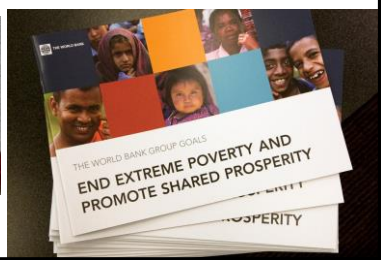
Balaji Venkataraman (agMOOCs in India)

http://www.agmoocs.in/

Chapter 19: Harnessing the Power of Open Learning to Share Global Prosperity and Eradicate Poverty

Sheila Jagannathan, World Bank, Washington DC

Figure 1: World Bank Group Twin Goals



Chapter 20: The Glocalization of MOOCs in Southeast Asia

Zoraini Wati Abas, Ed.D.

Figure 2. Eight of thirteen MOOCs offered by Taylor's University

Chapter 22: OER and MOOCs in Africa: The AVU Experience

Griff Richards and Bakary Diallo, African Virtual University, Nairobi, Kenya

It is estimated that only 6% of Africans can access post-secondary education. The development goal is set at 12% even though North America and Europe are somewhere around 45%.

Type of MOOC	cMOOC	xMOOC	pMOOC
Learner Role	Active	Passive	Active
Instructor Role	Co-learner	Sage on video stage	Guide on the side
Learning Theory	Connectivism	Behaviorism	Constructivism
Primary Pedagogy	Knowledge integration	Knowledge duplication	Knowledge production
Metaphor	"We link movies"	"We watch movies"	"We make movies"
Development Approach	Learning design	Instructional design	Educational design research
Primary Type of Assessment	Self Assessment	External and/or Peer Assessment	Self and/or Client Assessment
Funding Source	Seat of the pants funding	Large external funding	Moderate client provided funding

Figure 1. Differences among three types of MOOCs (Reeves & Hedberg, 2014).

Bonk, C. J., Lee. M. M., Reeves, T. C., & Reynolds, T. H. (in press). The emergence and design of massive open online courses (MOOCs). In R. A. Reiser, & J. V. Demsey (Eds.), *Trends and issues in instructional design and technology* (4th Ed.), (pp.?). Boston, MA: Pearson Education. Available: http://www.publicationshare.com/3

The Personalization of MOOCs

Chapter 2: Karen Head from Georgia Tech

- Be careful with small things like finger pointing—use at least two fingers.
- Jokes and humor can easily be misinterpreted.
- Be aware of shifting political climates impacting resource access such as YouTube in China.
- Many cultures do not have a linear approach (e.g., from A to B) to communication.
- Using visual rhetoric (e.g., visual images) to communicate can be a minefield of problems.

Chapter 14 (USA/Stanford): Paul Kim and Charlie Chung

- Encourage students to download lecture videos and translate them to other languages and perhaps add captions and make available in their local cloud services.
- Encourage students to create low bandwidth versions of videos for those in low bandwidth areas.
- Encourage students to translate videos and add nuances and words understandable in local languages.
- Encourage students to meet locally in teams to share materials and take care of "sensitive matters."

Chapter 15 (USA/U of Michigan): Chuck Severance

- Avoid troublesome metaphors and examples (e.g., the baseball World Series in the USA).
- Never show lecturer's face (use audio only)—allows for complete overdubbing in the native language and avoid hand gesture problems.
- Make slides as word free as possible—where possible use symbols

Chapter 18: Canada/COL Balaji Venkataraman

- In the Mooc on mobiles for development the course team received requests from two groups of learners in Sierra Leone and Zambia for the course materials on DVD.
- AgMoocs initiative (http://www.agmoocs.in/) uses MooKIT platform designed for access in low bandwidth conditions. It includes a functionality for a learner to hear the voice track on a basic mobile phone.

Chapter 19:
DC/World Bank Institute
Sheila Jagannathan

- We try to do badging etc. to give motivation and personal incentives such as champion or expert.
- We try to customize the discussion forums with regional and very level forums, topics and moderators.
- Google hangouts are also used to customize and personalize at country or institutional levels.

Chapter 21 (the Philippines/The Open U): Melinda Bandalaria

- Strictly avoid references to religion.
- Use acceptable dress code.
- Even when English is the primary or secondary language of the country, consider making MOOC content available in the major dialects of the country.
- ...one feature that we have integrated into our MOOCs which I think is one effort to personalize learning is the "Multiple Paths to Learning" or the "Learning on the Go". Through this feature, the learner can choose whether to learn through the video lessons, text lessons or podcast.

Chapter 25:
USA/Illinois
Ray Schroeder

- Most obvious way to personalize is to include group projects, allowing students to self-select into interest areas to conduct collaborative projects that are relevant to the MOOC topic
- One of the easiest and most effective ways is to build self-reflection into each module of a MOOC.
- Motivated self-determined learners (such as many MOOCers are) do naturally adapt, build upon and scaffold MOOCs to meet their personal learning needs and desires.

MOOC Research Gaps and Summaries

Khe Foon (Timothy) Hew (2018)

Hew, K. F. (2018). Unpacking the Strategies of Ten Highly Rated MOOCs: Implications for Engaging Students in Large Online Courses. *Teachers College Record, 120*(1).
https://www.coursetalk.com/

Hew's (2018, p. 1) analyzed 4,565 coursetalk review comments of 10 highly rated MOOCs. He found "six key factors that can engage online [MOOC] participants and nine reasons for participant disaffection."

1. Problem-centric learning supported by clear explanations.
2. Active learning supported by timely feedback (e.g., assignments, projects, discussion).
3. Course resources that cater to participants' learning needs or preferences.
4. Instructor attributes (e.g., passion, enthusiasm, humor, variety of examples).
5. Peer interaction.
6. Instructor availability.

August 2017

A Contemporary Review of Research Methods Adopted to Understand Students' and Instructors' Use of Massive Open Online Courses (MOOCs)

Ruiqi Deng and Pierre Benckendorff

TABLE III. PERSPECTIVE OF THE ARTICLE ($N = 53$)

Perspective	Frequency	Per cent
Student	48	90.6
Instructor	4	7.5
Both student and instructor	1	1.9

TABLE IV. NUMBER OF RESEARCH METHODS USED FOR DATA COLLECTION ($N = 53$)

Number of Research Methods Used	Frequency	Per cent
One	36	67.9
Two	15	28.3
Three or above	2	3.8

TABLE V. TYPE OF RESEARCH METHODS USED FOR DATA COLLECTION ($N = 89$)

Type of Research Methods Adopted	Frequency	Per cent
Surveys	31	44.9
Interviews	14	20.3
Log files	12	17.4
Other qualitative methods	12	17.4

"Second, triangulation of a wider range of research methods and data source should be undertaken. Beyond triangulation of surveys and interviews or log files, MOOC scholars are encouraged to combine other research methods to triangulate findings, such as diary studies and focus groups." (p. 605)

Quotes: Veletsianos et al. (2015-2016)

"To gain a deeper and more diverse understanding of the MOOC phenomenon, researchers need to use multiple research approaches (e.g., ethnography, phenomenology, discourse analysis) add content to them." (p. 583)

Veletsianos, Collier, & Schneider (2015, May), Digging deeper into learners' experiences in MOOCs: Participation in social networks outside of MOOCs, notetaking and contexts surrounding content consumption. *BJET, 46*(3), 570-587.

"Dependence on Particular Research Methods May Restrict our Understanding of MOOCs."

George Veletsianos & Peter Shepherdson's Study (2016). Systematic Analysis and Synthesis of the Empirical MOOC Literature Published in 2013-2015. *IRRODL.* http://www.irrodl.org/index.php/irrodl/article/view/2448/3655

Research Focus and Purpose

MOOC Study #1: MOOC Research

A Systematic Review of Research Methods and Topics of the Empirical MOOC Literature (2014-2016)

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.* 37,31-39.

Rationale… Research Background

- MOOCs can be beneficial to both learners and instructors
  (Hew & Cheung, 2014)
- 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)

Systematic Review of Research Methods in MOOCs (2014-2016)
(Zhu, M., Sari, A., & Lee, M. M., 2018)

	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

Systematic Review of Research Methods in MOOCs (2014-2016)
(Zhu, M., Sari, A., & Lee, M. M., 2018)

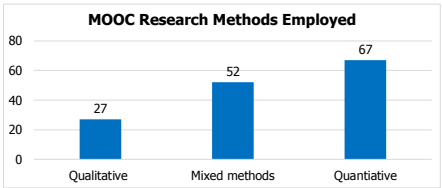
No.	Journal	Total
1	International Review of Research in Open and Distance Learning (IRRODL)	31
2	Computers & Education	12
3	British Journal of Educational Technology	9
4	Online Learning	7
5	Distance Education	5
6	Educational Media International	5
7	Internet and Higher Education	5
8	Journal of Computer Assisted Learning	5
9	Computers in Human Behavior	4
10	Open Learning	4
11	Journal of Online Learning and Teaching	3
12	Journal of Asynchronous Learning Network	3

Findings (Zhu, M., Sari, A., & Lee, M. M., 2018)
Country of MOOC Delivery and MOOC Research

Location of MOOC Research Team Members (2014-2016)

Systematic Review of Research Methods in MOOCs (2014-2016)
(Zhu, M., Sari, A., & Lee, M. M., 2018)

RQ1: What are the research methods researchers employed in empirical MOOC studies?



Systematic Review of Research Methods in MOOCs (2014-2016)
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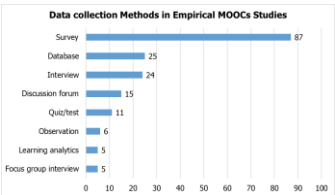

Systematic Review of Research Methods in MOOCs (2014-2016)
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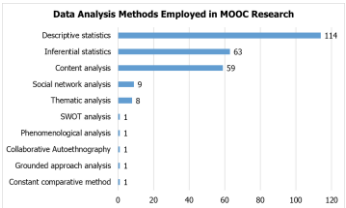


Systematic Review of Research Methods in MOOCs (2014-2016)
(Zhu, M., Sari, A., & Lee, M. M., 2018)

Specific Focus of MOOC Research (2014-2016)

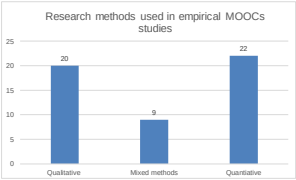
MOOC Study #2: MOOC Research

A Systematic Review of MOOC Research Methods and Topics: Comparing 2014-2016 and 2016-2017

Zhu, M., Sari, A., & Bonk, C. J. (2018). To be presented at Ed Media Amsterdam.

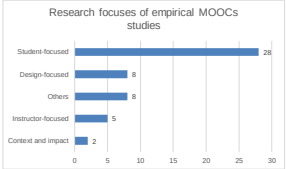
Systematic Review of Research Methods and Topics in MOOCs:
Comparing 2014-2016 and 2016-2017 (Zhu, M., Sari, A., & Bonk, C. J., 2018)

Figure 2. **Research methods used in empirical MOOCs studies (2016 – 2017) (n=51)**



Systematic Review of Research Methods and Topics in MOOCs:
Comparing 2014-2016 and 2016-2017 (Zhu, M., Sari, A., & Bonk, C. J., 2018)

Figure 8. **Primary/general focus of MOOC delivery (2016 – 2017) (n=51) (Note: some studies contain more than one area of focus)**



Phase 3:The Study has expanded again!

Total Number of Empirical MOOC Studies Published in Different Journals from 2013-2018

Table 1
(Note: the table only includes the top nine journals in terms of the number of empirical MOOC studies)

Journals	Number of empirical studies
International Review of Research in Open and Distributed Learning	51
Computers & Education	22
British Journal of Educational Technology	15
Online Learning	12
Distance Education	11
Journal of Online Learning and Teaching	11
The Internet and Higher Education	10
Computers in Human Behavior	10
Open Learning	8

Research methods used in empirical MOOCs studies

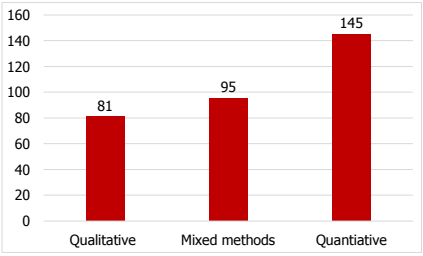


Figure 2. **Research methods used in empirical MOOCs studies from 2013-2018 (N=321 studies)**

Types of MOOC research methods used in different countries

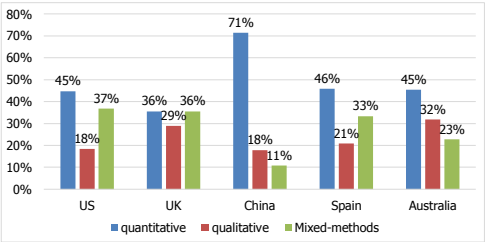


Figure 3. **Types of MOOC research methods used in the five countries with the most MOOC research from 2013-2018 (N=321 studies)**

Types of MOOC research methods used by year (2013-2018)

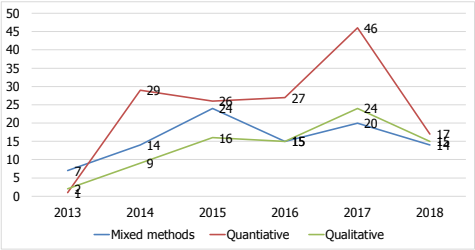


Figure 4. **Types of MOOC research methods used in each year from 2013-2018 (N=321 studies)**

Data collection methods used in empirical MOOCs studies

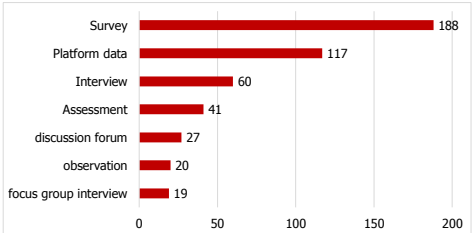


Figure 5. **Data collection methods used in empirical MOOCs studies from 2013-2018 (N = 321 studies)**
(Note: some studies contain more than one data collection method and this figure only includes the main data collection methods)

Tired of MOOCs…?

If not, you might read…

MOOC Study #4: MOOC Instructor Personalization and Addressing Learner Diversity

http://www.irrodl.org/index.php/irrodl/article/view/3439/4726

International Review of Research in Open and Distributed Learning
Volume 19, Number 4

September – 2018

Pushing Toward a More Personalized MOOC: Exploring Instructor Selected Activities, Resources, and Technologies for MOOC Design and Implementation

Curtis J. Bonk[1], Meina Zhu[1], Minkyoung Kim[2], Shuya Xu[1], Najla Sabir[1], and Annisa R. Sari[1,3]
[1]Indiana University, USA, [2]University of West Florida, USA, [3]Yogyakarta State University, Indonesia

Figure 1. MOOC instructor departmental or primary discipline affiliations (n=150)

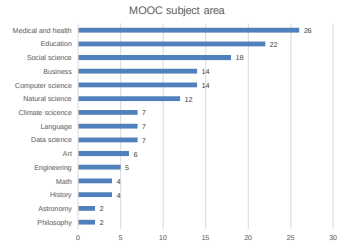


Figure 2. Size of most recent MOOC enrollments for survey respondents (n= 150)

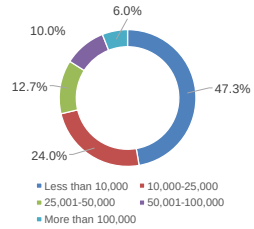


Figure 1. **MOOC instructor prior experience teaching fully online and blended courses prior to teaching their most recent MOOC (Note: on a scale of 1 (low) to 10 (high) (n= 148))**

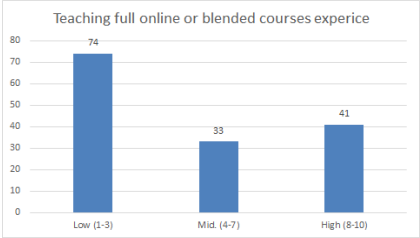


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Figure 2. **MOOC instructor involvement in designing course content for the MOOC (Note: on a scale of 1 (low) to 10 (high) (n=152)**

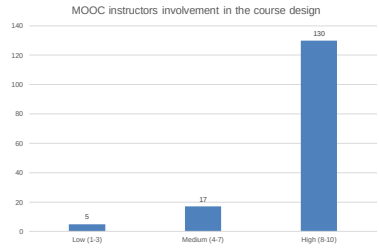

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Figure 3 and 4. **Effort placed on meeting unique learner needs when designing and delivering most recent MOOC (Note: on a scale of 1 (low) to 10 (high) (n=144)**

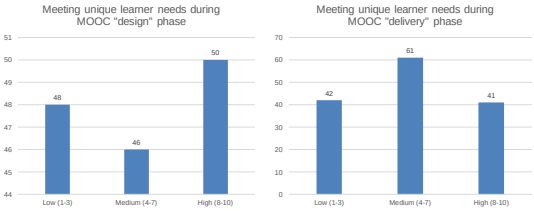

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Figure 5. **Number of MOOCs that offer different types of learner feedback (n=135)**

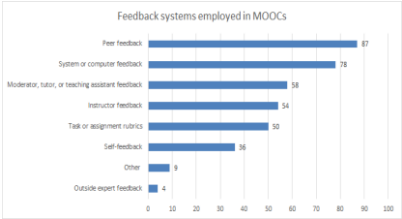

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Figure 6. **Number of MOOCs that offer different types of learning system automation and adaptation (n=127)**

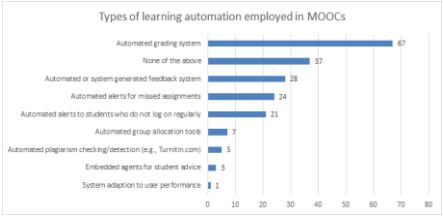

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Figure 7. **MOOC instructor interest in learning new ways to personalize their next MOOC offering (Note: on a scale of 1 (low) to 10 (high) (n=134)**

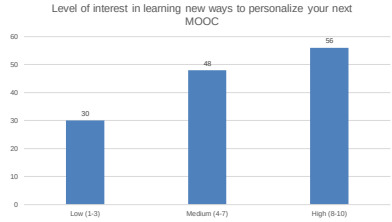

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Figure 8. The perceived effort of MOOC instructors in addressing the needs of individuals from different cultural backgrounds and languages in their most recent MOOC (Note: on a scale of 1 (low) to 10 (high) (n= 141)

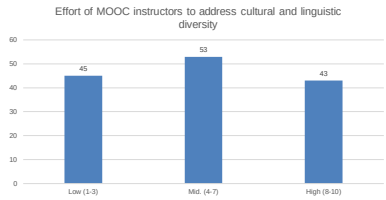


Figure 9: MOOC instructors (n=133) instructional practices to address cultural diversity

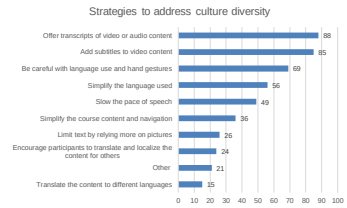


Table 1. Instructional Practices of MOOC Instructors to Address the Variety of Student Competencies and Needs (n=142)

Table 1

Instructional practices of MOOC instructors to address the variety of student competencies and needs (N=142)

Items	Response percent	Response count
Establish learner-based discussion forums	81.0%	115
Embed supplementary course materials	78.2%	111
Post timely course announcements and emails	63.4%	90
Record video tutorials or walkthroughs	40.8%	58
Emphasize project-based learning over exams	34.5%	49
Using preexisting online videos (e.g., Lynda.com, TED talks, YouTube, etc.)	32.4%	46
Other	26.1%	37
Hold synchronous lectures, meetings, and events (e.g., Skype, Google Hangouts, Zoom, etc.)	23.9%	34
Establish study groups	19.0%	27
Establish learner reflection journals or blogs	16.2%	23
Schedule virtual office hours and meetings	14.1%	20
Offer face-to-face meet-up opportunities	7.0%	10

Table 2. Items instructors provided in their most recent MOOC (n=126)

Table 2: Items instructors provided in their most recent MOOC (n = 126)

Items the current MOOC covered	Percent	Count
Optional readings, videos, or other materials	74.6%	94
Learner selected incentives (e.g., certificates, badges, course credit, etc., options)	64.29%	81
Options with course tasks and assignments	38.10%	48
Learner discussion and negotiation of content	36.51%	46
Two or more media elements to learn the same content	31.75%	40
Learner determined or contributed content	30.16%	38
Learner selected learning pathways (i.e., different routes to learn the same content)	19.05%	24
Learner portfolios of course accomplishments	16.67%	21
Choice in team or collaborative partners (i.e., self-formed teams)	12.70%	16

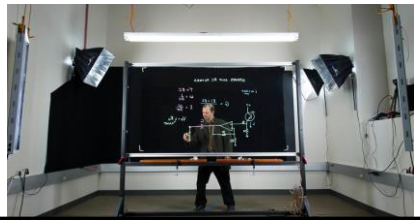
Category	Subcategory	Count
Multimedia presentation	All videos and screencasts had caption and transcriptions.	12
	Provide pdf and word version of materials.	1
	Provide text reader/read aloud.	2
	Videos are kept to be simple and short.	2
	Have animation.	1
	Provide free textbook.	1
Optional resources	Offer supplemental or optional materials.	8
Content	Creating material that is acceptable for various cultures.	2
	Keep cultural differences in mind when designing and producing the material.	1
	Materials are designed to accommodate different learning styles.	1
	Share personal story and life to some degree by recording lessons in and around home.	1
	Following country's compliance/regulation.	1
Language	Use simple, slow, and clear language.	3
Course instruction	The material is kept in a non-expert level.	5
	Give detailed outlines of the lesson.	1
	The course work is open, everyone can choose to work individually.	1
	Provide the background and the expectation of the course.	3
Feedback	Do not comment on language or grammar when commenting on forum posts.	1
Collaboration	Work with various university divisions (e.g., international office, student support, university expert, and language department).	2
	Pilot with international students.	1
Technology accessibility	Material can be viewed on computer, tablet or smart phone.	6
	Videos and transcripts can be downloaded to be viewed later.	3
	Simple navigation.	2
	Trying to make class activities to be browser based, not too much installation.	1
	Provide materials that use low bandwidth.	1
	Creating user-directed FAQs.	1
	Materials can be access easily.	1
	Not used flash based platform.	1
	Making the multimedia interactive apps more user friendly.	1
	The course is also available on app.	1

Study #4: Findings Recap

1. **There is a lack of learner monitoring and feedback (i.e., mostly self and peer monitoring/feedback).**
2. **More emphasis on personalization in the design of the course than in the delivery of it.**
3. **Subtitles and transcripts are the most common ways to address cultural and linguistic differences.**
4. **Automated grading and feedback more prevalent than automated alerts, advice/counseling, and plagiarism detection.**
5. **Instructors have high interest in learning techniques for personalization in their next MOOC.**

MOOC Study #5: MOOC Instructor Design Challenges and Considerations

Bonk, C., J., Zhu, M., & Sari, A. (2018, April 14). *MOOC Instructor Motivations, Innovations, and Designs: Surveys, Interviews, and Course Reviews*. Paper presented at the 2018 American Educational Research Association (AERA) annual meeting, New York City, NY.



Research Questions

1. **What motivates instructors to offer MOOCs?**
2. **What instructional innovations do MOOC instructors perceive?**
3. **What do instructors perceive as the strengths of their MOOCs?**
4. **How would they redesign the MOOC?**

Research Design

Research Methods-Data collection

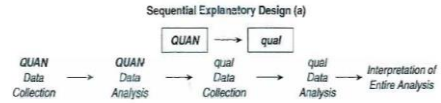
Sequential mixed methods design (Creswell & Clark, 2007)

Data Collection:

(1) surveys, (2) interviews, and (3) course reviews.

Participants:

- **143 survey participants (10% response rate)**
- **12 interviewees**

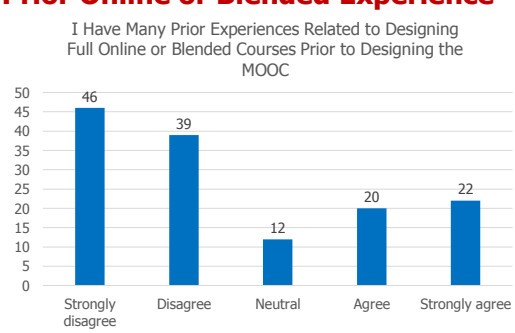


Research Methods-Data collection

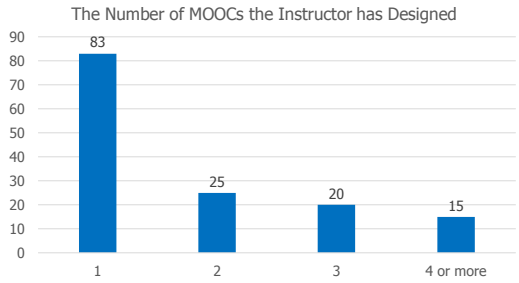
MOOC instructors interviewed

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

Prior Online or Blended Experience



Prior MOOC Experience



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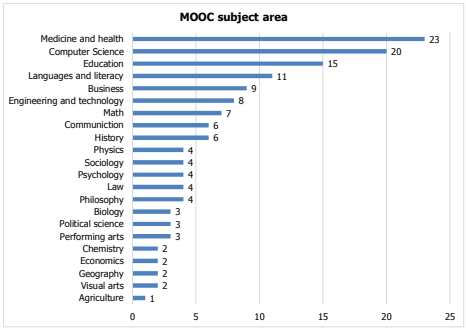
Subject Area of MOOC Taught



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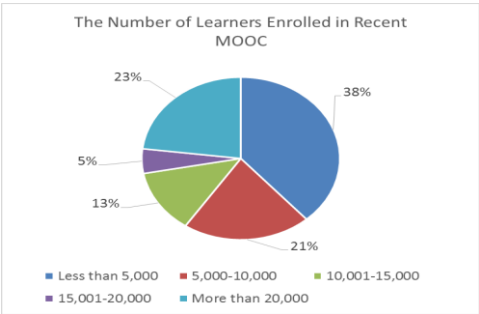
MOOC Enrollments



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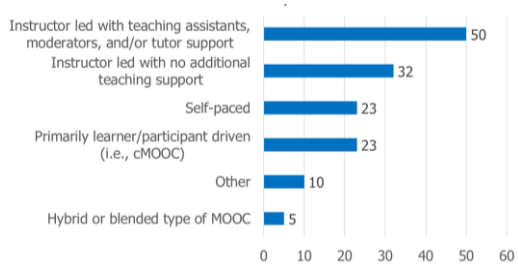
MOOC Delivery Format



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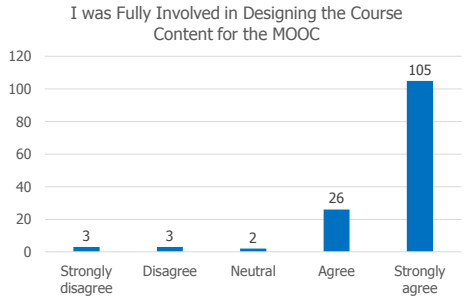
Involvement in Course Design



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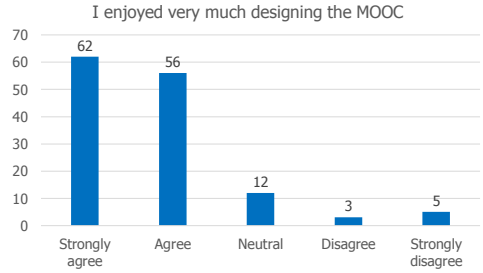
Enjoyment in Designing MOOCs



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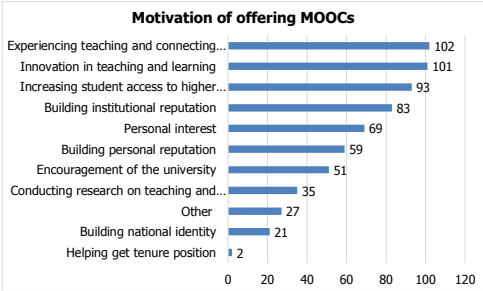
1. Motivational Findings

RQ1: What motivated instructors to offer MOOCs?



1. Motivational Findings

RQ1: What motivated instructors to offer MOOCs?

Many of them wanted to experience instructional innovation with MOOCs.

U.S.: decided to design MOOCs "just to experiment."

U.S.: "expose your university to broader world."

Sweden: "summarizes our way to teaching Computer Architecture and then I was very motivated to give a MOOC."

U.S. "The initial motivation was to make some video resources for my own students."

2. Innovation Findings

RQ2: What instructional innovations do MOOC instructors perceive?

- **Cutting videos into small chunks.**
- **Integrating interactive media.**
- **Peer review.**
- **Problem-based learning.**
- **Service learning.**

Address Diverse Learner Needs

Figure 7. **Ways used by MOOC instructors to address learner diverse needs**

3. MOOC Strengths Findings

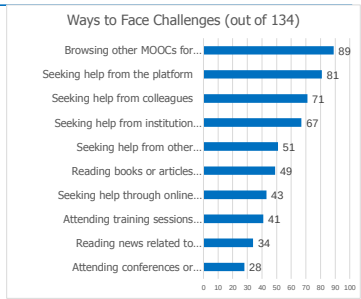
RQ3: What do instructors perceive as the strengths of their MOOCs?

- **The topic of the MOOC itself.**
- **The pedagogical methods employed.**
- **The impact on participants.**

Findings

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

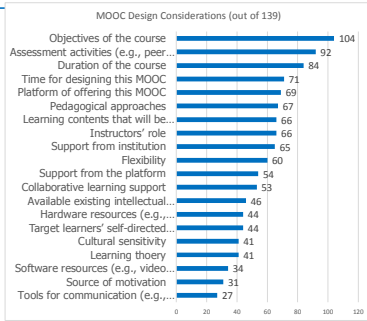
- **Explore other MOOC examples**
- **Seek help from the platform/Colleagues /institutions**



Findings

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

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



4. MOOC Design Findings

RQ4: How would they redesign the MOOC?

Overall, they were satisfied with the current course, especially with the structure.

One literacy instructor from the UK emphatically stated:

"Actually no. I'm quite happy with it and we've had good feedback from learners."

4. MOOC Design Findings

RQ4: How would they redesign the MOOC?

- **Adjusting the difficulty of quizzes.**
- **Adding lab experiences.**
- **Adding international perspectives.**
- **Cancelling peer-grading.**
- **Increasing instructor-student and peer-to-peer interaction.**
- **Inviting guest speakers.**
- **Making the length of the MOOC shorter.**
- **Using learning analytics before redesigning MOOC.**

4. MOOC Design Findings

RQ4: How would they redesign the MOOC?

Data from the platform

He further added:

"I probably am a much better teacher than I was before…To think about that [i.e., less interaction with students when using prerecorded video] made me a different teacher. I'm sure I'm a different teacher after that. If you want to become a better teacher, you develop a MOOC."

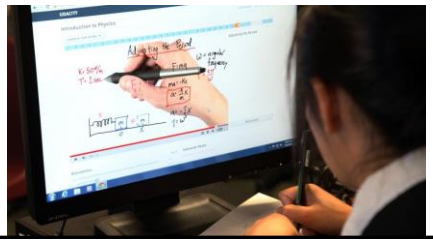
Study #5: Findings Recap

1. **Growth and relatedness needs were the primary instructor motivations for offering MOOCs.**
   Growth needs included curiosity about MOOCs and the exploration of new ways of teaching; such findings align well with the research from Hew and Cheung (2014).
2. **Various pedagogical innovations were mentioned by the interviewees (e.g., guests, PBL, service learning, peer review, interactive media, etc.).**
3. **MOOC instructors interviewed were satisfied with the designs of their MOOCs, but did want to make major changes to their course. (Lacking time? And overly rely on positive student feedback.)**
4. **Future Research might explore changes in MOOC instructor motivation across several MOOCs or perhaps PD or training impacts in MOOC instructor skills.**

Do we have time for another study?

MOOC Study #6: Malaysian and Indonesian MOOC Instructors

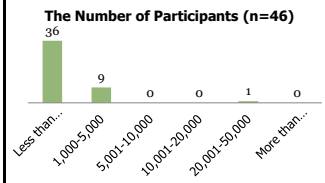
Sari, A., Bonk, C., J., & Zhu, M. (2018). MOOCs Design and Challenges: What can be Learned from Existing MOOCs in Indonesia and Malaysia?



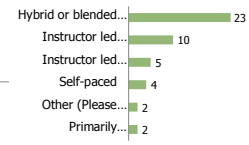
Research Questions

1. What are the instructors' reasons to offer MOOCs?
2. How do instructors design their MOOCs?
3. What challenges do instructors experience in designing their MOOC?

The Number of Participants (n=46)



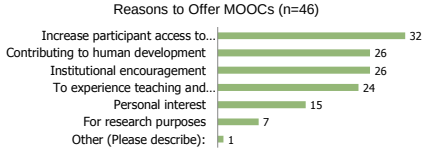
The Delivery Format of MOOC (n=46)



Research Methods-Data collection

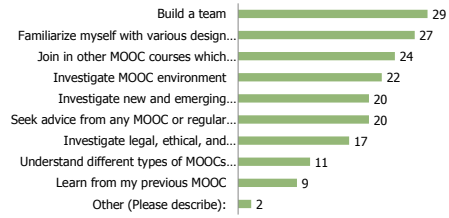
- **Research Design: mixed method design (Creswell, 1999)**
- **Data Collection: Survey, interview, course review Web-based survey: 20 closed-ended questions + 2 open ended questions; 9 interview questions.**
- **Participants: 46 survey participants (15.6%) and 9 interviewees (3 Malaysian + 6 Indonesian)**

Reasons to Offer MOOCs (n=46)



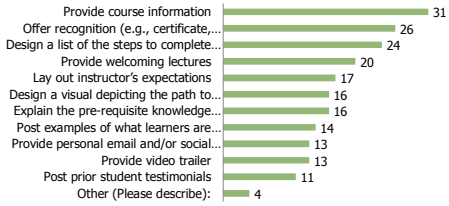
Preparation for MOOC

Preparation (n=46)



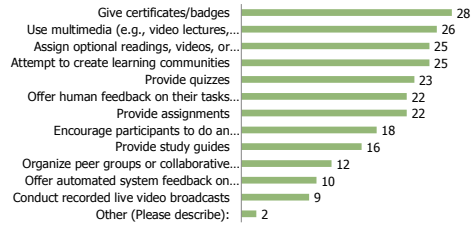
Increase Attraction

Strategy to Increase Participants' Attraction (n=46)



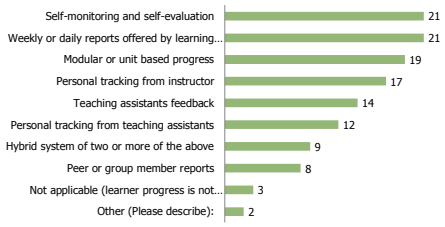
Increase Participation

Strategy to Increase Participation (n=46)



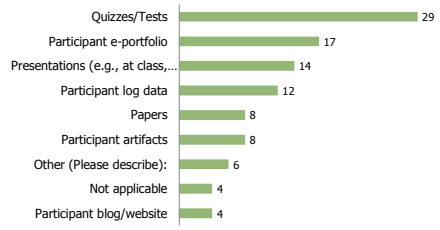
Participation Monitoring

Participation Monitoring or Tracking (n=46)



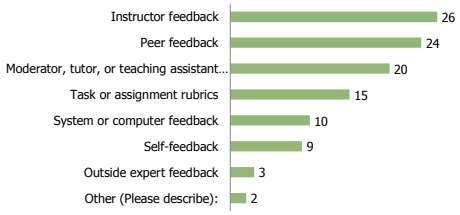
Assess Learning

Ways to Assess Participants' Learning (n=46)



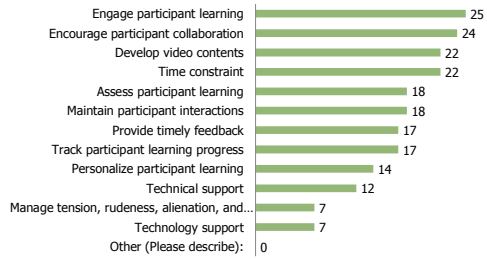
Obtain Feedback

The Way Participants Obtain Feedback in the Course (n=46)



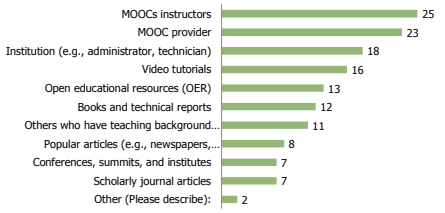
MOOC Instructor Challenges

The Challenges in Designing MOOCs (n=46)



Help of Advice from…?

Where did you Turn for Help or Advice when Facing the Challenges of Designing MOOCs? (n=46)



Study #6: Findings Recap and Future Directions

1. **Primary motives, include: (1) personal interest, (2) research purposes, (3) experience teaching a large online course, (4) institutional encouragement, and (5) altruism.**
2. **Offering recognition such as certificate, badge, points, or transfer credit to increase student enrollment.**
3. **Top challenges include encouraging collaboration, fostering engagement, video development, and time.**
4. **Future research might add perspectives from students, affiliated institutions, and MOOC providers**

Study #7: MOOC Instructor Perceptions of Participant Self-Directed Learning

Research Purpose

This study examined instructors' perceptions of SDL and the design and deliver of MOOCs to facilitate learners' SDL. The purpose is to find out MOOC instructors' perceptions of SDL and how MOOC instructors put considerations related to facilitating SDL skills into MOOC designs and delivery.

Research Questions

1. How do MOOC instructors perceive participants' SDL skills?
2. How do MOOC instructors perceive their facilitation of participants' SDL skills?
3. How do instructors design and deliver MOOCs to facilitate participant SDL skills?

Research Design

Research Methods-Data collection

Data Collection:
(1) surveys, (2) interviews, and (3) course reviews.

Participants:
– 48 survey participants (10% response rate)
– 4 interviewees

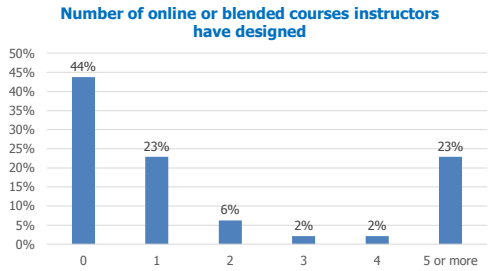
No.	Countries	Subject areas	Platforms
1.	The UK	Computer Science	Kadenze
2.	The UK	Literacy	FutureLearn
3.	The U.S.	Finance	Coursera
4.	Canada	Geography	Coursera

Research Methods-Data analysis

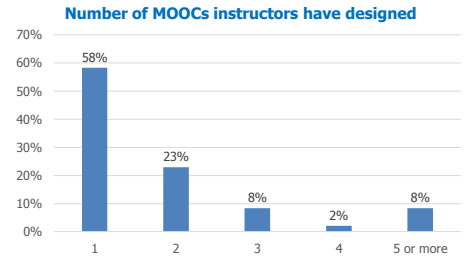
RQs	Data Sources	Data analysis
RQ1	Survey Interview MOOC review	Descriptive statistics Content analysis (Elo & Kyngäs, 2008)
RQ2	Survey Interview MOOC review	Descriptive statistics Content analysis
RQ3	Interview MOOC review	Content analysis

Demographic Information

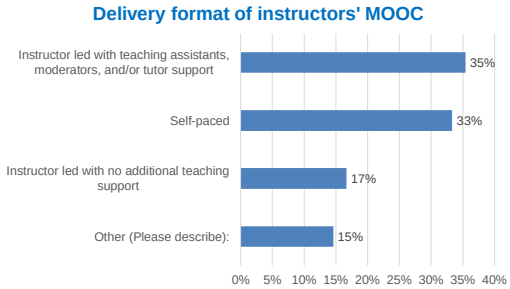
Prior Online or Blended Experience



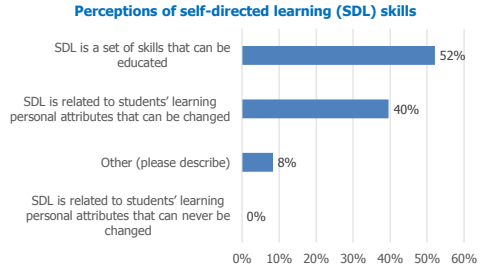
Prior MOOC Experience



MOOC Delivery Format



RQ1:MOOC instructors' perceptions of self-directed learning



RQ1:MOOC instructors' perceptions of self-directed learning

One instructor from the UK shared one example of students who have high SDL.

I guess to me it gets really exciting to look at how a number of those students have done projects that really go beyond the simple examples that I showed in lecture, and beyond the simple things up they were asked to do in the assignments. You know they've taken them into the real world… One student who, during the presidential election made a presidential debate voiced motion classifier, that you could run. And it would tell you whether candidates were being angry or not. It was just like really fun stuff that people did.

RQ1:MOOC instructors' perceptions of self-directed learning

Another instructor from the UK mentioned the his students with high SDL skills:

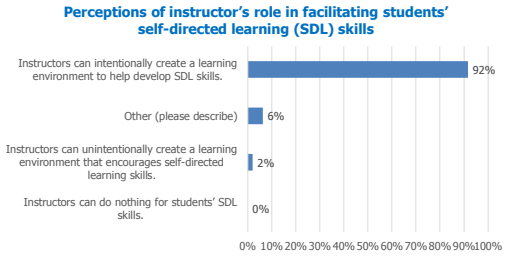
We had several students who said this is the 10th or 15th MOOC I have taken. Within a body of students who a very much learning junkies, who are enjoy doing all kinds of different MOOCs. One of them told us I just like all kinds of different things. But you have to be quite disciplined.

RQ1:MOOC instructors' perceptions of self-directed learning

One instructor from Canada mentioned the he has elder students with high SDL skills:

We have a very number of sort of sixty plus, retired people taking the course. They're pretty motivated.

RQ2: MOOC instructors' perceptions of their role in facilitating SDL skills



RQ2: MOOC instructors' perceptions of their role in facilitating SDL skills

One instructor from the UK stated:

I mean instructors can absolutely help, and, furthermore, I think the architecture of the MOOC itself that really helped. I think is common practice now, for instance, is to chop up video isn't a ten-minute chunk so that it's really easy for students to watch a little bit at a time, to watch it on the go, also you know [you will] be able to return to a subject that they maybe didn't understand or the first time...

Similarly, having things like suggested deadlines where it's something that's used as a piece of a way to motivate students to do the next thing, even though there's not any real consequences if they're not doing it.

RQ3: How do instructors design and deliver MOOCs to facilitate participant SDL skills?

The top five SDL skills that their MOOCs facilitated included:

(1) motivates students to learn new information (M=4.38);

(2) helps the student critically evaluate new ideas (M=4.06);

(3) helps the student be in control of his/her learning (M=4.06);

(4) helps the student to be able to find out information related to learning content for him/herself (M=3.94);

(5) helps the student embrace a learning challenge (M=3.92).

However, it seems that their MOOC designs have limited influence on students' management skills (e.g., managing time and learning resources) (M=3.38) and setting strict time frames for learning (M=3.25).

RQ3: How do instructors design and deliver MOOCs to facilitate participant SDL skills?

An interview with one instructor from Canada revealed a more behaviorally-based tactic that some MOOC instructors use to facilitate students' SDL skills.

He argued that "I think our quizzes at the end are helpful. And I think...we have reading lists and I update the reading lists for the course on a regular basis." He added that they "direct people to that" and send reminders through the forum and emails.

RQ3: How do instructors design and deliver MOOCs to facilitate participant SDL skills?

One instructor from Canada mentioned he sent students message to remind students:

You lose people at the front and so one of the things that I've started to try to do is, because I know who those people are is to sort of send messages out saying "hey, if you haven't started yet just sign up again blah blah blah" and get people started. I figure once we get people started we can keep them in the course like we have a good track record of keeping people in the course.

RQ3: How do instructors design and deliver MOOCs to facilitate participant SDL skills?

One instructor from the UK mentioned she encouraged student reflection:

> One of the things that I tried to do was to give people opportunities for different types of engagement with explicit opportunities for reflection built-in. So, for instance. You know for the second or third assignment, part one is you're asked to go through a set of exercises on your own following from examples in lecture. At the end you're asked some questions about which parts of this were hard, what challenges did you encounter, how would you approach solving those challenges, how successful were you.

RQ3: How do instructors design and deliver MOOCs to facilitate participant SDL skills?

One instructor from the US mentioned she tried to combine the content with student personal life:

> one of the things that we really tried to put in was opportunities for people to take what they were learning and to reflect back how it impacted their own lives. So, we asked people about activities the case studies and things always go back to you...then we say, in your own situation what would you do? So, in that sense I think that helps people to think about not only what's the right answer to a quiz question, perhaps but also how does what I'm learning affect me and how does that what I want to still learn more about. We made this really personal and applicable to them.

RQ3: How do instructors design and deliver MOOCs to facilitate participant SDL skills?

One instructor from the US mentioned she used interactive interview to engage students in MOOC:

> And then we also have these little one-minute like on the street interviews to also try to help students engage with like what's happening. To me so it wasn't all talking heads because that just we didn't think that was going to be helpful for the self-directed learning at all. So, we did try to really think about how could we get people involved.

Discussion, Significance, and Conclusion

Discussion of Results

1. Instructors considered SDL as a skill that can be educated.
2. Most of them felt that MOOC instructors can intentionally create learning environments that foster the development of SDL skills as Kell and Deursen (2002) suggested.
3. In terms of their design and delivery practices to facilitate SDL via the MOOC, it seems that the impact is mainly on learner self-monitoring and motivation. However, the impact on students' self-management skills seems limited.

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