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

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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

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

The future bride graduated from the 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 MBA COME 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.

Weirdness #5…April 20, 2015
250 MOOCs and Counting: One Man’s Educational Journey, Chronicle of Higher Education
http://chronicle.com/article/250-MOOCs-Counting-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
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

September 12, 2018
Coursera’s CEO on the Evolving Meaning of ‘MOOC’
Dian Schaffhauser, Campus Technology

Weirdness #9... January 22, 2018
A Review of MOOCs Stats and Trends in 2017, Dhawal Shah, Class Central

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.

MOOC Trends and Recent Data

MOOC Trends and Recent Data

January 22, 2018
A Review of MOOCs Stats and Trends in 2017, Dhawal Shah, Class Central
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)

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

Chapter 8: MOOCs Downunder: Insights from the Open2Study Experience
Maggie Hartnett, Mark Brown, and Amy Wilson
Massey University, Dublin City University, and Massey University

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: Example of the Indigenous Studies subject
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

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%.
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)

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

“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 case studies and focus groups.” (p. 605)
MOOC Study #1: MOOC Research

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


<table>
<thead>
<tr>
<th>Design-focused</th>
<th>Mixed methods</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quantitative</td>
<td>Qualitative</td>
</tr>
<tr>
<td>Student-focused</td>
<td>39</td>
</tr>
<tr>
<td>Design-focused</td>
<td>19</td>
</tr>
<tr>
<td>Context and impact</td>
<td>9</td>
</tr>
<tr>
<td>Instructor-focused</td>
<td>0</td>
</tr>
</tbody>
</table>

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)

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

MOOC Research Methods Employed

![Chart showing distribution of research methods]

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

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

![Chart showing distribution of research methods]

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

Specific Focus of MOOC Research (2014-2016)

![Diagram of data collection methods]

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

MOOC Study #2: MOOC Research

Phase 3: The Study has expanded again!

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

<table>
<thead>
<tr>
<th>Journals</th>
<th>Number of empirical studies</th>
</tr>
</thead>
<tbody>
<tr>
<td>International Review of Research in Open and Distributed Learning</td>
<td>51</td>
</tr>
<tr>
<td>Computers &amp; Education</td>
<td>22</td>
</tr>
<tr>
<td>British Journal of Educational Technology</td>
<td>15</td>
</tr>
<tr>
<td>Online Learning</td>
<td>12</td>
</tr>
<tr>
<td>Distance Education</td>
<td>11</td>
</tr>
<tr>
<td>Journal of Online Learning and Teaching</td>
<td>11</td>
</tr>
<tr>
<td>The Internet and Higher Education</td>
<td>10</td>
</tr>
<tr>
<td>Computers in Human Behavior</td>
<td>10</td>
</tr>
<tr>
<td>Open Learning</td>
<td>8</td>
</tr>
</tbody>
</table>

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

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)

Data collection methods used in empirical MOOCs studies

Tired of MOOCs...?

If not, you might read...
MOOC Study #4: MOOC Instructor Personalization and Addressing Learner Diversity

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))

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

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))

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

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

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

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.
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 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

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

<table>
<thead>
<tr>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly agree</th>
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</thead>
<tbody>
<tr>
<td>46</td>
<td>39</td>
<td>12</td>
<td>20</td>
<td>22</td>
</tr>
</tbody>
</table>
Prior MOOC Experience

The Number of MOOCs the Instructor has Designed

Subject Area of MOOC Taught

MOOC Enrollments

The Number of Learners Enrolled in Recent MOOC

MOOC Delivery Format

Involvement in Course Design

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

Enjoyment in Designing MOOCs

I enjoyed very much designing the MOOC
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.

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. 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


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 MOOCs?

The Number of Participants (n=46)

<table>
<thead>
<tr>
<th>Delivery Format of MOOC</th>
<th>n</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hybrid or blended</td>
<td>23</td>
</tr>
<tr>
<td>Instructor led</td>
<td>10</td>
</tr>
<tr>
<td>Self-paced</td>
<td>5</td>
</tr>
<tr>
<td>Other (Please describe)</td>
<td>2</td>
</tr>
</tbody>
</table>

Reasons to Offer MOOCs (n=46)

- Increase participant access to learning
- Contributing to human development
- Institutional encouragement
- To experience teaching and learning
- Personal interest
- For research purposes
- Other (Please describe)

Preparation for MOOC (n=46)

- Build a team
- Familiarize myself with various design
- Join in other MOOC courses which
- Investigate MOOC environment
- Investigate new and emerging
trends
- Seek advice from any MOOC or regular
instructor
- Investigate legal, ethical, and...
- Understand different types of MOOCs
- Learn from my previous MOOC
- Other (Please describe)

Strategy to Increase Participants’ Attraction (n=46)

- Provide course information
- Offer recognition (e.g., certificate)
- Design a list of the steps to complete
- Provide welcoming lectures
- Lay out instructor’s expectations
- Design a visual depicting the path to success
- Explain the pre-requisite knowledge
- Post examples of what learners are expected to do
- Provide personal email and/or social media
- Provide video trailers
- Post prior student testimonials
- Other (Please describe)

Strategy to Increase Participation (n=46)

- Give certificates/badges
- Use multimedia (e.g., video lectures)
- Assign optional readings, videos, or...
- Attempt to create learning communities
- Provide assignments
- Provide human feedback on their tasks
- Offer automated system feedback on
- Conduct recorded live video broadcasts
- Other (Please describe)
**Participation Monitoring**

<table>
<thead>
<tr>
<th>Method</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-monitoring and self-evaluation</td>
<td>21</td>
</tr>
<tr>
<td>Weekly or daily reports offered by learning</td>
<td>21</td>
</tr>
<tr>
<td>Modular or unit based progress</td>
<td>19</td>
</tr>
<tr>
<td>Personal tracking from instructor</td>
<td>17</td>
</tr>
<tr>
<td>Teaching assistants feedback</td>
<td>14</td>
</tr>
<tr>
<td>Personal tracking from teaching assistants</td>
<td>12</td>
</tr>
<tr>
<td>Hybrid system of two or more of the above</td>
<td>9</td>
</tr>
<tr>
<td>Peer or group member reports</td>
<td>8</td>
</tr>
<tr>
<td>Not applicable (learner progress is not being tracked)</td>
<td>3</td>
</tr>
<tr>
<td>Other (Please describe)</td>
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</tbody>
</table>

**Assess Learning**

<table>
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<th>Count</th>
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</thead>
<tbody>
<tr>
<td>Quiz/Tests</td>
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<tr>
<td>Participant e-portfolio</td>
<td>17</td>
</tr>
<tr>
<td>Presentations (e.g., at class,</td>
<td>14</td>
</tr>
<tr>
<td>Participant log data</td>
<td>12</td>
</tr>
<tr>
<td>Papers</td>
<td>8</td>
</tr>
<tr>
<td>Participant artifacts</td>
<td>8</td>
</tr>
<tr>
<td>Other (Please describe)</td>
<td>6</td>
</tr>
<tr>
<td>Not applicable</td>
<td>4</td>
</tr>
<tr>
<td>Participant blog/website</td>
<td>4</td>
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</tbody>
</table>

**Obtain Feedback**

<table>
<thead>
<tr>
<th>Method</th>
<th>Count</th>
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</thead>
<tbody>
<tr>
<td>Instructor feedback</td>
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<tr>
<td>Peer feedback</td>
<td>24</td>
</tr>
<tr>
<td>Moderator, tutor, or teaching assistant</td>
<td>20</td>
</tr>
<tr>
<td>Task or assignment rubrics</td>
<td>15</td>
</tr>
<tr>
<td>System or computer feedback</td>
<td>10</td>
</tr>
<tr>
<td>Self-feedback</td>
<td>9</td>
</tr>
<tr>
<td>Outside expert feedback</td>
<td>3</td>
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<tr>
<td>Other (Please describe)</td>
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**MOOC Instructor Challenges**

<table>
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<th>Count</th>
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<tbody>
<tr>
<td>Engage participant learning</td>
<td>25</td>
</tr>
<tr>
<td>Encourage participant collaboration</td>
<td>24</td>
</tr>
<tr>
<td>Develop video contents</td>
<td>22</td>
</tr>
<tr>
<td>Time constraint</td>
<td>22</td>
</tr>
<tr>
<td>Assess participant learning</td>
<td>18</td>
</tr>
<tr>
<td>Maintain participant interactions</td>
<td>18</td>
</tr>
<tr>
<td>Provide timely feedback</td>
<td>18</td>
</tr>
<tr>
<td>Track participant learning progress</td>
<td>17</td>
</tr>
<tr>
<td>Personalize participant learning</td>
<td>17</td>
</tr>
<tr>
<td>Technical support</td>
<td>14</td>
</tr>
<tr>
<td>Manage tension, rudeness, alienation, and</td>
<td>7</td>
</tr>
<tr>
<td>Technology support</td>
<td>7</td>
</tr>
<tr>
<td>Other (Please describe)</td>
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</table>

**Help of Advice from...?**

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

<table>
<thead>
<tr>
<th>Source</th>
<th>Count</th>
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<tr>
<td>MOOC provider</td>
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</tr>
<tr>
<td>Institution (e.g., administrator, technician)</td>
<td>18</td>
</tr>
<tr>
<td>Video tutorials</td>
<td>16</td>
</tr>
<tr>
<td>Open educational resources (OER)</td>
<td>13</td>
</tr>
<tr>
<td>Books and technical reports</td>
<td>12</td>
</tr>
<tr>
<td>Others who have teaching background</td>
<td>11</td>
</tr>
<tr>
<td>Popular articles (e.g., newspapers)</td>
<td>8</td>
</tr>
<tr>
<td>Conferences, summits, and institutes</td>
<td>7</td>
</tr>
<tr>
<td>Scholarly journal articles</td>
<td>7</td>
</tr>
<tr>
<td>Other (Please describe)</td>
<td>2</td>
</tr>
</tbody>
</table>

**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 delivery 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

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Demographic Information

- [Image of world map showing participation in MOOCs across various countries]
**Prior Online or Blended Experience**

Number of online or blended courses instructors have designed

- 44% of instructors have designed 0 courses.
- 23% have designed 1 course.
- 6% have designed 2 courses.
- 2% have designed 3 courses.
- 2% have designed 4 courses.
- 23% have designed 5 or more courses.

**Prior MOOC Experience**

Number of MOOCs instructors have designed

- 58% of instructors have designed 0 MOOCs.
- 23% have designed 1 MOOC.
- 8% have designed 2 MOOCs.
- 2% have designed 3 MOOCs.
- 2% have designed 4 MOOCs.
- 8% have designed 5 or more MOOCs.

**MOOC Delivery Format**

Delivery format of instructors’ MOOC

- 35% of instructors led with teaching assistants, moderators, and/or tutor support.
- 31% designed self-paced courses.
- 17% of instructors led with no additional teaching support.
- 15% chose other (please describe).

**RQ1: MOOC instructors’ perceptions of self-directed learning**

Perceptions of self-directed learning (SDL) skills

- SDL is a set of skills that can be educated: 52%
- SDL is related to students’ learning personal attributes that can be changed: 40%
- SDL is related to students’ learning personal attributes that can never be changed: 8%
- Other (please describe): 0%

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.

Another instructor from the UK mentioned 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

Perceptions of instructor’s role in facilitating students’ self-directed learning (SDL) skills

- Instructors can intentionally create a learning environment to help develop SDL skills: 100%
- Instructors can unintentionally create a learning environment that encourages self-directed learning skills: 0%
- Instructors can do nothing for students’ SDL skills: 0%
- Other (please describe)
  - 0%

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.

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.

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.

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 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.

Discussion, Significance, and Conclusion

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Slides and Proceedings Paper at TrainingShare.com:
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