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Examining learners' perspective of taking a MOOC: reasons, excitement, and perception of usefulness

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In recent years, massive open online Courses (MOOCs) as an online instruction format have attracted educators' attention in higher education. While there are many news reports and blog entries about MOOCs, evidence-based research is still emerging. Research examining the learners' perspective on taking a MOOC is scarce but very much needed. This study, using both quantitative and qualitative data, investigated participants' reasons and excitement levels to take a MOOC and their perception of the usefulness of the course. The findings indicated that the majority of the participants were working professionals who sought to get opportunities and resources for their career development without the constraints of their geographical locations and time. Flexibility of the course schedule, credibility of the instructor, and quality of the materials are important factors for these individuals. The findings highlighted the importance of good pedagogies regardless if the platform is a MOOC, face-to-face, or other online formats; the hands-on nature was the most helpful aspect of this MOOC. The findings also showed that course design is important as difficult navigations and not-so-intuitive interface affected participants' learning experience and perception of the course negatively.

Keywords: MOOCs; learners' perspective; reasons; excitement; perception of usefulness

Introduction and related literature

An emerging technology that has attracted educators' attention recently in higher education is the massive open online course (MOOC), which is significantly affecting online education (Allen & Seaman, 2014; Yuan & Powell, 2013). MOOCs can provide learning opportunities for a large number of people who might otherwise be excluded for reasons including time, geographic locations, formal prerequisites, and financial hardship (McAuley, Stewart, Siemens, & Cormier, 2010) and offer opportunities for students to discuss and share ideas with individuals who have a wide range of experience, knowledge, and skills.

Since the first MOOC in 2008, there has been much enthusiasm for the MOOC phenomena (Ruth, 2012). Some question if MOOCs are an effective mode of instruction Bady, (2013), while others are more optimistic and believe that current experimentations can lead to a major breakthrough in interactive learning in higher education (Davidson, 2012; Kop, Fournier, & Mak, 2011). The *NMC Horizon*

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Report: 2013 Higher Education Edition (Johnson et al., 2013) considered MOOCs as a near-term technology to adopt, although more recent reports suggest "MOOC fever is cooling" and people are less enthusiastic about it (Koenig, 2014). News reports and blog entries about MOOCs are abundant, but evidence-based research is still emerging. Veletsianos (2013) indicated, "we only have small pieces of an incomplete mosaic of students' learning experiences with open online learning" (p. 2). Research examining learners' perspective on taking a MOOC, a critical element for MOOCs to be successful, is scarce but very much needed (Milligan, Littlejohn, & Margaryan, 2013; Saadatmand & Kumpulainen, 2014).

In many MOOCs, students do not earn credit but receive a certificate to prove completion of a course. A low completion rate is often found in these MOOCs (Parr, 2013). The literature related to learners' perspective of taking a MOOC has shown motivation as a critical factor affecting learner engagement in online activities (Mackness, Waite, Roberts, & Lovegrove, 2013; Milligan et al., 2013). For example, motivation was identified as one of the key factors affecting engagement in addition to prior experience and confidence in the study by Milligan et al. (2013) which examined 29 participants' patterns of engagement in a cMOOC. In examining the pedagogy in one MOOC attended by 200 participants from 24 countries, Mackness et al. (2013) found that students who remained active were those "who were, or who learned to be, autonomous, open, connected, and interactive" (p. 153). The literature on MOOCs has also shown that MOOC participants are often diverse in their backgrounds such as age, country of access, prior knowledge of the MOOC content, and their comfort and confidence levels (Breslow et al., 2013; DeBoer, Ho, Stump, & Breslow, 2014; Kop et al., 2011). Depending on their personal objectives and backgrounds, MOOC participants often exhibit different learning behavior patterns and show different levels of engagement (Fini, 2009; Kop, 2011; Milligan et al., 2013). Milligan et al. (2013) identified three types of patterns: active and passive participations and lurking, and they also suggested that different types of learners can coexist within a MOOC which presents challenges to MOOC designers. Zutshi, O'Hare, and Rodafinos (2013) found in their study that MOOC learners shared "a desire to explore, learn and develop" and only one mentioned the importance of the certificate of completion (p. 219). Kizilcec, Piech, and Schneider (2013), when examining the completion rate using learning analytics to review patterns of interaction with video lectures and assessments, found that learners stayed engaged through the course without taking tests/quizzes, and suggested that it is more insightful to understand the ways students engage in a MOOC rather than just reporting the number of students enrolled or percentage who received a certificate.

In conducting a literature review on MOOCs, Hew and Cheung (2014) identified four reasons why students enrolled: to learn a new topic or extend current knowledge, curiosity about MOOCs, personal challenge, and the desire to accumulate completion certificates. They also indicated that the primary reasons for a high drop-out rate were due to a lack of motivation, failure to grasp the content with no one to turn to for help, and having other priorities to complete. Macleod, Haywood, Woodgate, and Alkhatnai (2015) found that the top reason learners participated in a MOOC was to learn new things. They found that some learners, particularly those in regions or countries that did not offer advanced educational topics, were interested in using MOOCs to obtain a certificate and/or enhance their careers.

For those who were new to MOOCs, Waite, Mackness, Roberts, and Lovegrove (2013) identified several factors affecting their participation: How easy it is to

navigate through the MOOC course, the need to have support from the course learning community, and self-organization skills. The study by Kop and Fournier (2011) indicated skills such as time management, goal setting, higher level of critical analysis, and being intrinsically motivated as influencing the level of engagement and active participation in open personal learning environments such as MOOCs. Emerging literature also showed some MOOC participants preferred the MOOC format over traditional campus face-to-face learning (Miller, Haller, Rytz, & Odersky, 2014), but also indicated learners' "mixed feelings" toward taking MOOCs, considering their experience both stimulating and frustrating (Mackness, Mak, & Williams, 2010; Zutshi et al., 2013). Given that the literature on MOOCs is emerging, evidence-based research is needed to understand why people take MOOCs, what aspects of MOOCs attract their participants, and the role MOOCs play as a form of online instruction.

Theoretical framework

Anderson and Dron's "Three Generations of Distance Education Pedagogy" (2011) and Chickering and Gamson's "Seven Principles for Good Practice in Undergraduate Education" (1987) provide a theoretical framework for this research. It is generally recognized that there are two types of MOOCs: cMOOCs, which draw upon connectivism, the latest generation of theoretical foundations (Anderson & Dron, 2011) in which, "Learning is a process of connecting specialized nodes or information sources" (Siemens, 2005, p. 3); and xMOOCs, which are more traditional using a behaviorist approach (Daniel, 2012). While the distinctions between these two types are important, given the rapid changing landscape of MOOCs, they are not always so clear-cut as some MOOCs carry the characteristics of both cMOOC and xMOOC (Bali, 2014).

Regardless of the MOOC type, the seven principles of good pedagogical practice outlined by Chickering and Gamson in 1987 still apply today. The seven principles include (a) good practice encourages student–faculty contact, (b) good practice encourages cooperation among students, (c) good practice encourages active learning, (d) good practice gives prompt feedback, (e) good practice emphasizes time on task, (f) good practice communicates high expectations, and (g) good practice respects diverse talents and ways of learning. The theoretical foundations of these seven pedagogical principles are the three generations of learning approaches as described by Anderson and Dron: cognitive-behaviorism, social constructivism, and connectivism. Each of these approaches has a different emphasis. Cognitive-behaviorist pedagogy typically focuses on learning activities such as reading and watching; social constructivist pedagogy focuses on discussing, creating, and constructing activities; and connectivist pedagogy focuses on exploring, connecting, creating, and evaluating activities (Anderson & Dron, 2011). Anderson and Dron (2011) argued that all three "should be effectively used to address the full spectrum of learning needs and aspirations of twenty-first century learners" (p. 81). In the field of distance education for which MOOCs are the latest format, technology plays a critical and enabling role in which new forms of technologies can offer new possibilities "to explore and capitalize on different aspects of the learning process" (Anderson & Dron, 2011, p. 91). The relationship between pedagogy and technology and among teacher, student, and content become increasingly important and complicated in an open, autonomous, and diverse context such as MOOCs.

According to Daniel (2012), "the real revolution of MOOCs" is for universities to pay more attention to teaching and effective pedagogical practices. Central to this phenomenon is learners' experiences in taking a MOOC.

Purpose of the study

To understand learners' perspective on taking a MOOC, our previous research examined 409 participants' experiences in taking a six-week MOOC that had an initial enrollment of 5000 students from 137 countries (Liu et al., 2014). The findings showed that 84% of the enrolled were working professionals and 28.9% were from the discipline of the MOOCs target audience. Only 5.6% of the students completed all the requirements and paid to receive their certificate. Of the participants that did not complete the course, lack of time was indicated as the top reason. Most participants reported a positive learning experience and learned new knowledge and skills, but the lack of feedback from the instructor and peers and/or less useful peer feedback was reported as negative experiences. The discussion forum was found to be the least liked aspect of the course.

This study continued this research inquiry by examining the learners' perspective on taking a five-week MOOC, *Introduction to Infographics and Data Visualization,* taught by the same instructor but eight months later. We asked the following research questions (RQs):

(1) What are the reasons for the participants to take this MOOC?
(2) How excited are they in taking this MOOC and why?
(3) How do they compare learning in this MOOC with face-to-face or other online courses?
(4) What aspect(s) of this MOOC do they find most helpful to their learning and why?
(5) Are there any trends in the findings of this MOOC and the same MOOC offered eight months prior?

Method

Participants and the MOOC

A five-week MOOC, *Introduction to Infographics and Data Visualization*[1] in journalism, was offered from 6 October to 9 November 2013, via Moodle, by the Knight Center for Journalism in the Americas in the College of Communications at the University of Texas at Austin. A total of 4078 people from 145 countries registered for the course. The participants of this study were 320 people who completed a survey (8% response rate).

The course content consisted of reading materials, video lectures, and tutorials for learning technical tools and five discussion forums, four of which were mandatory (see Figure 1). The participants' performance was evaluated by one quiz, two infographic exercises, and four mandatory discussions. If the participants wanted to receive a certificate (optional), they needed to complete the quiz with an 80% score or higher, complete at least two exercises, and participate at least twice in the required discussion forums, in addition to completing the online certificate form and paying a $30 fee.

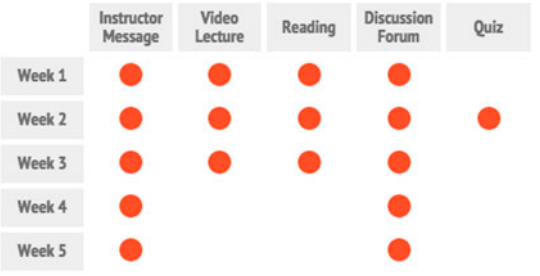

Figure 1. Overview of the course structure.

Data sources and analysis

A survey was sent to all study participants using the Qualtrics survey tool after the MOOC ended. A total of four reminders were sent at the different times within a three-week period before the survey was closed to ensure maximum participation. The construction of the survey items was based on a literature review of similar topics. The survey was first used in a previous study on the same topic (Liu et al., 2014). Based on the prior findings, a few items were revised for clarity, and new items related to this study were added. Sample questions included the following in addition to other demographic questions:

- Is this your first time taking a MOOC?
- How many MOOCs have you taken so far (not including this one)?
- Why did you take this MOOC?
- How excited were you about taking this MOOC? Why?
- How do you compare learning in this MOOC with face-to-face or other online courses?
- How helpful were the materials provided in this MOOC? Why?
- What did you like the MOST about the course?
- What did you like the LEAST about the course?
- Do you feel you have learned a lot from this MOOC? If Yes, Please name three things you have learned. If No, Why have you not learned a lot from this MOOC?

The survey included both Likert scale (with 1 being negative and 5 being positive) and open-ended questions. Both quantitative and qualitative data were used for triangulation (Creswell, 2014).

Likert scale survey responses were analyzed descriptively. Open-ended responses were analyzed following a systematic and iterative examination of the data through open and "focused coding" (Charmaz, 2006). The development of codes originated from the codebook utilized in the previous study on the same topic (Liu et al., 2014). Using NVivo, one researcher independently coded each open-ended response and a second researcher then checked these coded responses. The codes were verified, modified, and/or refined. A total of 71 codes were organized and categorized into emerging themes through the constant comparative method (Lincoln & Guba, 1985; Strauss & Corbin, 1998), and seven additional codes were added. Examining the frequency of the codes identified the top emerged themes, which included

(a) positive aspects such as student's learning, the instructor, and active interaction; (b) negative aspects such as course structure, design, or lack of feedback, and (c) general aspects regarding the MOOC experience, course materials, or course topic. During this coding process, the research team met regularly to compare data, codes, categories, and themes; to re-analyze, if needed; and to resolve any disagreements until the inter-rater reliability reached 100%.

Results

Demographics of the participants

Of the 320 participants who responded to the survey, 54% ($n = 172$) were female and 46% ($n = 148$) were male. The majority of the participants, 83% ($n = 267$), were working professionals (see Figure 2(a)). Thirty-seven percent ($n = 118$) worked in the field of journalism, and the remaining, 63% ($n = 202$), were from other fields such as education, health related, marketing, engineering, graphic design, or social science. Approximately 30% ($n = 95$) of the participants were from the United States, 5% ($n = 17$) from Spain, 5% ($n = 15$) from the Netherlands, and 4% ($n = 14$) from Brazil. About 1–3% was from other countries such as Australia, Canada, Italy, Ukraine, United Kingdom, Columbia, Germany, India, Finland, and Kenya (see Figure 2(b)). In terms of previous MOOC experience, 66% of the participants ($n = 212$) indicated this course was their first MOOC, while 15.84% ($n = 38$) have taken only one MOOC, 10.12% ($n = 24$) have taken two, and 18.92% ($n = 41$) have taken more than two MOOCs previously.

RQ1: What are the reasons for the participants to take this MOOC?

The findings of this study showed the top two reasons for taking this MOOC were to learn more about the topic for personal reasons (71.25%, $n = 228$) and for their current job (70.31%, $n = 225$). Other main reasons to take this MOOC included learning about future career possibilities (42.19%), what MOOCs are like (30.63%), getting course materials (29.69%), and learning from specific instructor(s) (24.38%). Getting a certificate comprised 18.75% (see Figure 3).

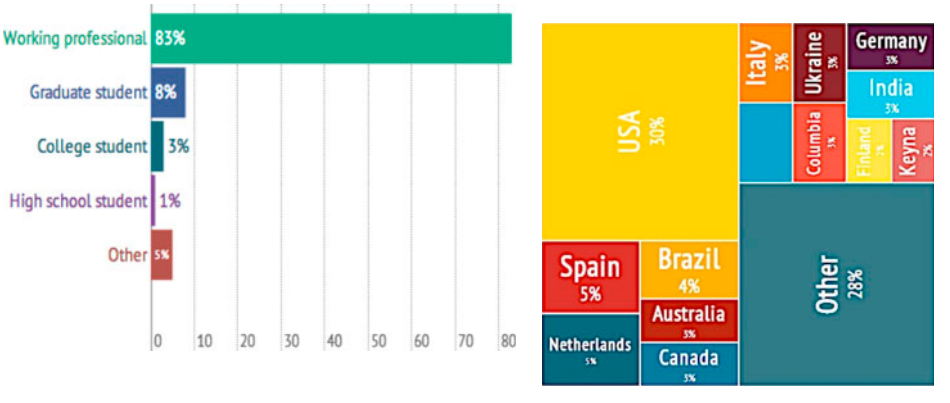

Figure 2. Participant demographics. (a) Participants' occupation. (b) Countries the participants were from.

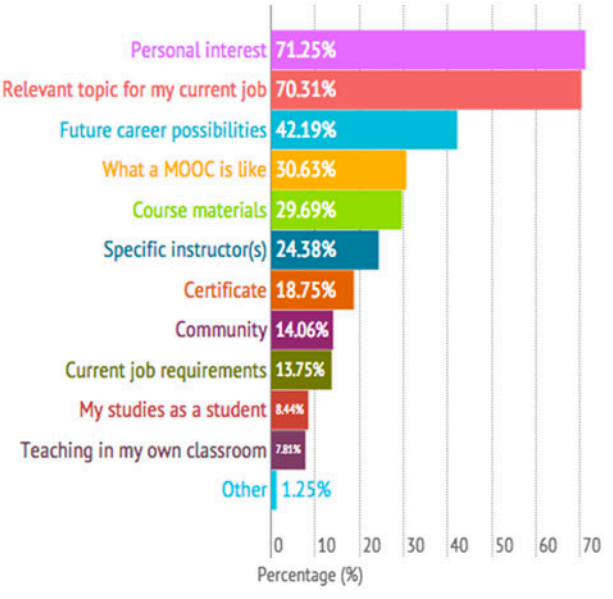

Figure 3. Reasons for taking the MOOC.
Note: This is a multiple-answer question. Participants were asked to select all that applied. % = (*n*/total number of participants) × 100.

RQ2: How excited are they in taking this MOOC and why?

The results showed that 87.50% ($n = 280$) of participants were excited to take this MOOC, while only 4.06% ($n = 13$) were reluctant and 8.44% ($n = 27$) indicated neutral. The main reason for excitement was the participants' interest in the topic, as they believed the learning experience will help them prepare for their current job or future career development and add new skills to their resume as well as obtain new skills in a short time period for free. One participant commented,

> "I am very interested in learning more about Data Analysis and Data Visualization. I strongly believe that having skills in both of these areas will help me become more marketable to employers."[2]

The instructor's expertise and his well-known name was another reason some participants were excited. The course instructor was referred to by many participants as "a well-respected figure" and "renowned in the field of infographics." Participants noted that "the opportunity to learn about an interesting "new" topic right from the experts" was an appealing element of participating in this MOOC, as one participant stated, "I have followed the instructor on Twitter for a while, and I was excited to learn from him."

Another reason was their curiosity to explore the MOOC itself as a new online learning tool. The MOOC provided an opportunity for participants to learn about a topic that is emerging and considered to be a "hot topic." "I need to create infographics for my job and … I have no training in infographics. It is a huge field, but there is limited specific training." Students were also excited to take the course since a full course was not offered in their region, or there was not a qualified instructor available to teach the course concepts. "I cannot [learn] in Japan because it is too innovative to have excellent instructors."

Participants' responses indicated a lack of time as a main reason for being neutral or reluctant as one stated, "[I am] very busy with work and personal responsibilities. I didn't have a lot of time for the MOOC." Others indicated less satisfactory course forum and structure:

> The recordings of the course were of a reasonable quality, but seemed [to] not be formatted for online. The website was a bit complicated, and I couldn't easily figure out where I was in the course [or] where to submit stuff. Not very intuitive.

RQ3: How do participants compare learning in this MOOC with face-to-face or other online courses?

Sixty-five percent of the responses (n = 169) indicated their MOOC experience was better than face-to-face courses or other online courses. Six percent (n = 17) indicated there was no difference, and 29% (n = 75) indicated they preferred face-to-face instruction (see Figure 4). The positive aspects indicated flexibility, new learning experience, quality of course materials (e.g. videos and readings), active interaction, and learning from an expert. The negative aspects included lack of timely feedback, unorganized course structure, and lack of motivation. Ten percent did not indicate any preference for specific instruction; however, they found such features of this MOOC – course duration (five to six weeks), specialized course topics (e.g. data visualization, infographics) – appealing.

Of the positive responses, 44% indicated that flexibility is one of the advantages of this MOOC as it allows a large number of students to pursue their interested topics regardless of time and geographical constraints, and 11% indicated the course materials were superior to face-to-face courses in terms of quality and accessibility. Specifically, the MOOC course materials provided more opportunities than face-to-face course materials as they could repeat the video lectures anytime. Active interaction with the instructor, the teaching assistant, and the students from all over the world was also found to be a positive aspect.

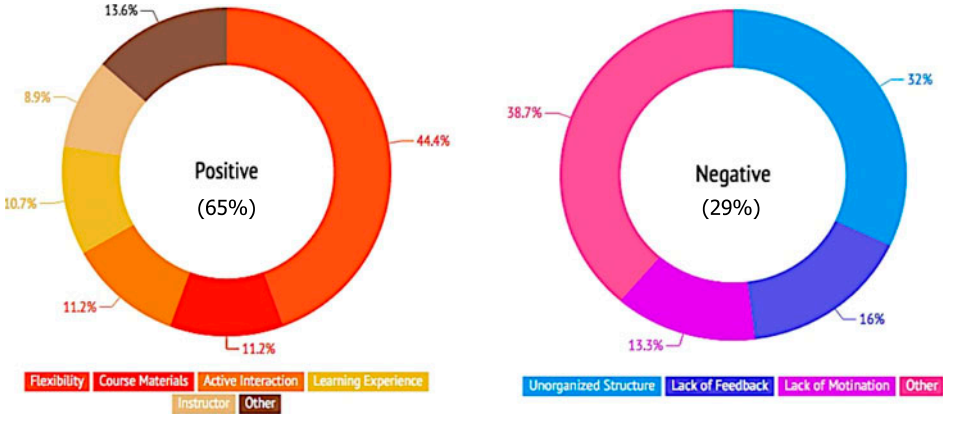

Figure 4. Participants' learning experience in this MOOC as compared to face-to-face or other online courses.

On the other hand, 29% indicated the negative aspects of this MOOC. One major finding was about the unorganized course structure (32%, $n = 24$). One participant stated that the course materials were not consolidated; therefore, she had to spend additional time to organize the materials. In addition, the course navigation was difficult due to an unclear course interface. Participants also found the discussion forums to be unorganized, "chaotic," "awkward," and difficult to navigate, as one explained, "The discussion forums were overwhelming, especially for a student with a limited amount of time: it's a challenge to catch up with all discussions, go over dozens of designs."

The responses indicated some participants would have preferred more feedback from either the instructor or the other participants on the course assignments. Some indicated the active interaction was one of the positive aspects of taking this MOOC, while others indicated the lack of interaction as a negative aspect. The different levels of participation could possibly explain such mixed findings: how often and actively a participant posted his/her work or responded to others in the discussion forums. One respondent pointed out that compared to face-to-face courses, there was a missing opportunity for having a natural dialog between the instructor and students in the MOOC. Table 1 presents sample quotes to illustrate further these findings.

RQ4: What aspect(s) of this MOOC do they find most helpful to their learning and why?

The participants were asked, "Do you feel you have learned a lot from this MOOC?" Eighty-two percent ($n = 262$) of the participants indicated they learned a great deal. The participants that responded in favor of learning were further asked to name three things that they have learned. The topic most commonly noted was related to the skills on how to develop data visualization and infographics and how to evaluate a completed project. Further analysis revealed the parts of the course that the participants found to be most or least helpful to support their learning that included the activities, assignments, course tools, and materials.

Activities and assignments

Fifty-five percent of the participants reported that they completed most or all of the assignments as compared to 45% that indicated they only completed a few or none of the activities. Participants found that the assignments and activities were helpful to their learning as they provided them the opportunities to practice design principles and understand how to develop graphical representations of the data. The hands-on nature of this MOOC was noted a top feature that students liked the most about the course. Students indicated they were able to "apply their knowledge," and were allowed the "freedom to explore" on a topic new to many participants.

Course tools

The findings also showed using the tools and softwares (i.e. *Tableau*, *Adobe Illustrator,* and *Excel*) were helpful in learning data visualization and how to produce infographics. Through the use of these tools, the participants were able to understand how to organize and produce good data visualizations. One participant stated,

Table 1. Positive and negative aspects of the MOOC when compared to face-to-face or online courses.

Category	Themes	%	Sample comments
Positive aspects	Flexibility	44.4 (n = 75)	"I think the fact that people could make it without rushing is very important because they can start later and go in their own rate. The course flexibility was a very important subject for me to participate."
			"On this MOOC, I can direct the course of study, apply effort when I have time; and allow myself the time to study up on areas I don't initially understand without diverting attention from the class-less pressure."
			"I prefer MOOCs now because I am always lack of time to go to some place. Besides, this kind of courses is not available on my city."
	Course material	11.2 (n = 19)	"Videos were clear, concise and interesting. I was able to repeat sections that I didn't understand very well, which is impossible in a face-to-face course. The reading material was superb – wide yet relevant and represented different perspectives."
			"Video lectures were very good, and so were other learning materials. And I thought the weekly assignments (critiquing infographs, discussing them and resigning infographs) were excellent for learning."
			"The fact that it is a free access to resources will help me to continue learning by myself."
	Active interaction	11.2 (n = 19)	"The level of interaction was higher than I expected for an online course."
			"The timeliness and thoughtfulness of response I got from the professor, teaching assistant, and other students was impressive and inspiring."
	Learning experience	10.7 (n = 18)	"I learned more about this (specialized) subject than I ever could from a F2F classroom, because a comparable classroom experience is unlikely, if not impossible."
			"With the power of the internet it's always great to be able to communicate with people from all over the world. It's been a great experience."
	Instructor	8.9 (n = 15)	"The content of the lectures was excellent, due to the instructor's deep expertise and excellent delivery."
			"It felt more sincere and valuable (the instructor really wanted to share his knowledge, as opposed to just wanting us to buy his books)."
Negative aspects	Unorganized course structure	32.0 (n = 24)	"The interface is confusing and not intuitive. The navigation is unclear."
			"Much more chaotic than other online courses I've taken, perhaps because of the poor and confusing instructional design."
			"The biggest advantage of traditional face-to-face courses is the consolidation of tangible materials. I spent more time than I should have just trying to get all the various documents (web pages, PDFs,

(*Continued*)

Table 1. (*Continued*).

Category	Themes	%	Sample comments
			Word docs, etc.) together and then putting them in a preferred, consistent format."
	Lack of feedback	16.0 (n = 12)	"It's harder to get feedback on work in this format than in a face to face course. There are so many people, you might only hear from one or two if you're lucky." "It is harder to get a natural dialogue going in the feedback process. I miss the immediate bouncing of ideas that you get in a face-to-face course." "In the MOOC's there's a lack of feedback because lots of people are enrolled on this type of courses, I understand that the teacher doesn't have time to review all people's work, that's why the MOOC's should not be open to a large amount of people."
	Lack of motivation	13.3 (n = 10)	"Working full time its harder to motivate to get all the assignments done. Face to face forces you to get things done." "Making it compulsory to complete the assignments was somewhat disheartening. I somehow feel INCOMPLETE and UNFULFILLED, although it was very enriching personal learning for me." "I can't seem to motivate myself enough to complete it because of said flexibility."

> [I learned] different graphical tools have related strengths and weaknesses, and the different scenarios under which they can be used. One does not need to be a graphic guru to be able to come up with a concept for raw data to tell a compelling visual story.

Course materials

As shown in Figure 5, the participants considered reading materials and videos helpful: $M_{\text{reading}} = 4.99$, $M_{\text{video}} = 4.29$, but were less positive about discussion forums and quiz: $M_{\text{discussion}} = 3.6$, $M_{\text{quizz}} = 3.49$.

Participants' open-ended responses corroborated the quantitative results in that the videos and reading materials were informative and high quality. Many indicated that the materials would be a good resource they could refer to after the completion of MOOC. The expertise of the instructor and many relevant examples provided were also considered valuable: "I liked to see all those examples during the videos and the feedback that [instructor] gave on the designs." However, the quiz was found to be basic and did not present a challenge, as explained by this comment, "The quiz mostly focused on recalling facts and on some of the more trivial side of the course." Participants also found the discussion forums less useful compared to the readings and videos.

RQ5: Are there any trends in the findings of this MOOC and the same MOOC offered eight months prior?

When comparing the findings from the previous study (Liu et al., 2014) with the ones in this study, a few observations were noted.

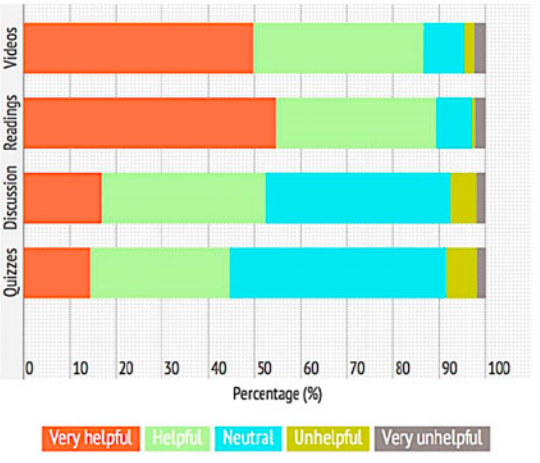

Figure 5. Course materials participants found helpful to their learning.

Demographics

Both MOOCs had a large enrollment, and the participants were from different countries. Although both MOOCs were designed for journalists, about two-thirds of the participants were from different disciplines and the majority were working professionals (see Table 2 and Figure 6). Similar to the previous study, the number of people who completed all assignments and received the certificate is low.

Prior MOOC experience

The participants were asked about their prior MOOC experience. As compared to the MOOC course offered eight months prior, we found that more people have taken MOOCs in this study. The results showed that fewer people (17% decrease) indicated this was their first MOOC experience. The responses for having taken only one prior MOOC, two prior MOOCs, or two or more MOOCs doubled for each category from the previous study to the current study (see Table 3). This finding suggests people have more exposure and access to MOOCs.

Table 2. Comparing demographic information from study 1 (previous one) to study 2 (current one).

Data collection period	Fields of participants	# of countries from	# of enrolled	Completed all assignments and paid to receive certificate (%)
Study 1: Jan. 12–Feb. 23, 2013	Journalism = 30% 70% from other fields	138 and 44% from US	5000	6
Study 2: Oct. 6–Nov. 9, 2013	Journalism = 37% 63% from other fields	148 and 30% from US	4078	4

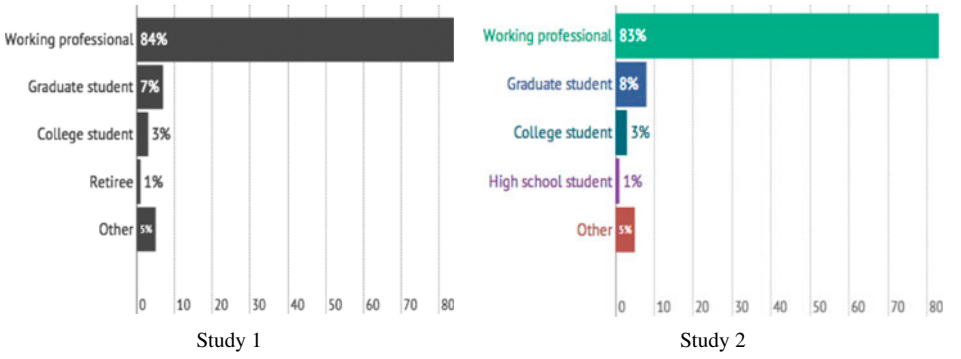

Figure 6. Comparing occupations of the participants from Study 1 and Study 2.

Table 3. Comparing prior MOOC experience from study 1 and study 2.

Prior MOOC experience	First MOOC (%)	Taken 1 MOOC (%)	Taken 2 MOOCs (%)	Taken more 2 MOOCs (%)
Study 1 (n = 413)	83	6	4	6
Study 2 (n = 320)	66	12	8	13

Excitement level

In comparing the level of excitement that the participants had for taking the MOOCs, the findings showed that 87.5% of participants were excited about taking this MOOC, a similar level of excitement as found in the MOOC eight months earlier (89.8%). The reasons for excitement were similar in both MOOCs (see Table 4). One difference noted was a stronger excitement for the instructor in this MOOC. In the first MOOC, more participants were excited for obtaining personal or professional development; however in this MOOC, more participants were excited due to the instructor being a renowned expert in the course topic.

Discussion and implications

This study aimed to extend our previous research (Liu et al., 2014) to examine further the learners' perspective of taking MOOCs using both quantitative and qualitative data. The findings revealed the participants' excitement and reasons for taking this MOOC, their perception of its usefulness and highlighted the importance of design for MOOCs as an open online instruction format.

Excitement and reasons for taking this MOOC and perception of its usefulness

The majority of the participants were excited to take this MOOC. The top-three reasons include learning a new topic, learning from the well-known instructor, and exploring MOOCs as a learning format, which appears to align with what is suggested in the literature (Hew & Cheung, 2014). Consistent with other reports on MOOCs (e.g. Parr, 2013), this study showed a large number of people signed up for MOOCs, but a very small percentage actually chose to receive a certificate. Given

Table 4. Comparing MOOC excitement level from study 1 and study 2.

Excitement	% of being excited (%)	% of being reluctant (%)	Top reasons for being excited about the course
Study 1	89.8 (n = 370)	2 (n = 9)	• The course topic • Explore MOOCs as a learning format • Personal or professional development
Study 2	87.5 (n = 280)	4.06 (n = 13)	• The course topic • The instructor • Explore MOOCs as a learning format

the often criticized low completion rate, why did these students enroll in this MOOC? The results showed the top-three reasons were to learn more about the topic for personal reasons (71.25%), for their current job (70.31%), and for future career possibilities (42.19%). These were the same top-three reasons found in our previous study (Liu et al., 2014) and are consistent with the findings by Hew and Cheung (2014). Other reasons included learning what MOOCs were like, getting course materials, and learning from a specific instructor(s). Getting a certificate was not the primary reason for these participants to take this MOOC. When the participants were asked "How many exercises and assignments have you completed?" 37% indicated all of them and 18% indicated most of them. However, these participants did not proceed to pay the fee to receive a certificate. Receiving a certificate does not appear to be their goal for taking this MOOC. In fact, it is interesting to note that the quiz completion rate, a requirement to get the certificate, decreased 18% from the previous study (32%) to the current one (13.7%). Along with these main enrollment reasons, the findings for the participant's excitement level also indicated that the participants mainly expected that the MOOC learning experience would help in their career development and add new emerging skills from a renowned instructor (Macleod et al., 2015). Some participants also responded that they used this MOOC as a supplement to limited training on the topic. These findings suggest many people use MOOCs as a way to seek personal knowledge growth and are less interested in grades as an indication of achievement (DeBoer et al., 2014), which supports the literature which shows MOOC learners' motivation is less based on receiving a certificate of completion, but more on their personal objectives and learning behaviors (Fini, 2009; Kop, 2011; Milligan et al., 2013).

The findings of this study further indicated that about two-thirds of the participants felt positive about their MOOC learning experience compared to face-to-face or other online courses (Miller et al., 2014), citing such reasons as flexible course structure accessible anywhere and at anytime, learning a new skill or topic, quality of course materials, active interaction, and learning from an expert. Such findings are consistent with other studies and reports indicating the benefits of MOOCs: enabling the massiveness and diversity of the participants, allowing anyone to take advantage of such learning opportunities regardless of time, pace, geographic locations, formal prerequisites, and financial hardship (Breslow et al., 2013; McAuley et al., 2010).

What is worth noting is that the results of this study highlighted the importance of good pedagogies (Chickering & Gamson, 1987), regardless if the platform is

MOOC, face-to-face, or other online formats, as the participants found such features of this MOOC useful to their learning: practical nature, relevant examples, peer evaluation with guidance from the instructor, carefully chosen reading materials, and well-prepared videos. The participants particularly liked the hands-on activities and assignments that provided them the opportunities to apply their knowledge to their current work. Such findings highlight the importance of effective pedagogical principles such as student-centered active learning, collaboration, and peer-to-peer/instructor feedback and the useful techniques reflecting the three generations of distance education pedagogy in one context to address learners' different needs (Anderson & Dron, 2011).

However, while the majority felt positive about their learning experience, lack of feedback and the massiveness especially in discussion forums were identified as the main negative aspects of the learning experience. Literature has indicated that poor information architecture or usability of MOOCs would have a negative impact on student engagement (Sanchez, 2013). The findings revealed less desirable aspects such as lack of clarity in navigating the course, not well-organized and "chaotic" discussion forums, and the clumsiness of Moodle interface (Liu et al., 2014).

Importance of design

Literature indicates motivation is a major challenge for MOOC participants (Allen & Seaman, 2014; Kop & Fournier, 2011). Some researchers have pointed out that MOOC participants varied in their personal objectives and backgrounds (Fini, 2009; Kop, 2011; Milligan et al., 2013), so they may engage in the course differently. The majority of the participants in this MOOC were working professionals, who were motivated but were short of time (Rice, 2013). Most participants found that the course materials were valuable and informative, while some felt the quizzes were not challenging enough and discussion forums were less useful. Some participants also indicated the difficulty in being motivated to complete all course assignments when they did not see the value of doing them. The challenges of learning on this massive scale with different needs and experiences highlight the importance of design. Keeping busy working individuals engaged throughout an entire course is especially challenging for MOOC instructors and designers. It is, therefore, crucial for instructors and designers to understand various types of students, their disciplines, and motivations (Selingo, 2014) and create learning activities to keep students motivated. The participants of this MOOC felt that the course interface was not easy to navigate; specifically, as the course went on, the discussion forums became increasingly disordered because of the massive number of responses, which affected their perception of their learning experience. While the participants found that being able to interact with individuals with similar career interests and knowledge was a beneficial aspect of taking the MOOC, the less-organized structure deterred them from interacting to their full potential which resulted in the lack of interaction and useful peer feedback. Therefore, the design needs to be intuitive, easy to navigate, and accommodate large numbers for peer interaction (Waite et al., 2013). Such challenges are more prominent in designing MOOCs than face-to-face or other online instruction formats. In a networked world, technology can be a significant enabling factor (Anderson & Dron, 2011). Ultimately, good designs can help promote MOOC participants' levels of engagement and allow effective pedagogical principles to benefit learners.

Limitations of the study

This study is limited in that it primarily relied on MOOC participants' self-reported data and one data source. While 4078 people from 145 countries enrolled in the MOOC under investigation, only 320 participated in this study, an 8% response rate. In future research, we plan to include multiple data sources such as interviews with selected participants and also course activity data for triangulation.

Conclusion

This study investigated the learners' reasons and excitement to take a MOOC and perception of its usefulness through both quantitative and qualitative data. The results indicated that MOOCs can serve as a useful online professional development platform for many working professionals who seek to learn new and/or update their knowledge and skills, especially when such opportunities and resources are free and not available in their geographic regions. The flexibility of the course schedule, credibility of the instructors, and the quality of the materials are important considerations for students. Given the massive number of participants and their different learning goals and behaviors, the design of the interface for a MOOC delivery platform becomes crucially important. LMSs developed prior to the emergence of MOOCs must evolve to accommodate the emerging needs of MOOCs. Institutions and instructors who use such systems should be aware of their limitations and should find a way to make the navigation simple and easy to use. We hope the findings of this study will provide the much needed insights from students' perspective about the current MOOC phenomena and contribute to our understanding of MOOCs as a form of online instruction.

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No potential conflict of interest were reported by the authors.

Notes

1. The researchers were not the participants nor instructors of the MOOC.
2. Participants' quotes are presented as they are without editing.

References

Allen, I. E., & Seaman, J. (2014). *Grade change: Tracking online education in the United States*. Babson Survey Research Group and Quahog Research Group, LLC.

Anderson, T., & Dron, J. (2011). Three generations of distance education pedagogy. *The International Review of Research in Open and Distributed Learning, 12*, 80–97.

Bady, A. (2013, May 15). *The MOOC moment and the end of reform*. Retrieved from http://thenewinquiry.com/blogs/zunguzungu/the-mooc-moment-and-the-end-of-reform

Bali, M. (2014). MOOC pedagogy: Gleaning good practice from existing MOOCs. *MERLOT Journal of Online Learning and Teaching, 10*, 44–56.

Breslow, L. B., Pritchard, D. E., DeBoer, J., Stump, G. S., Ho, A. D., & Seaton, D. T. (2013). Studying learning in the worldwide classroom: Research into edX's first MOOC. *Research & Practice in Assessment, 8*, 13–25.

Charmaz, K. (2006). *Constructing grounded theory: A practical guide through qualitative analysis*. London: Sage.

Chickering, A., & Gamson, Z. (1987). Seven principles of good practice in undergraduate education. *AAHE Bulletin, 39*, 3–7.

Creswell, J. (2014). *Research design: Qualitative, quantitative, and mixed methods approaches* (4th ed.). Thousand Oaks, CA: Sage.

Daniel, J. (2012). *Making sense of MOOCs: Musings in a maze of myth, paradox and possibility*. Seoul: Korean National Open University. Retrieved from http://www.tonybates.ca/wp-content/uploads/Making-Sense-of-MOOCs.pdf

Davidson, C. (2012, October 1). *What can MOOCs teach us about learning?* HASTAC. Retrieved from http://www.hastac.org/blogs/cathy-davidson/2012/10/01/what-can-moocs-teach-us-about-learning

DeBoer, J., Ho, A. D., Stump, G. S., & Breslow, L. (2014). Changing "course": Reconceptualizing educational variables for massive open online courses. *Educational Researcher, 43*, 74–84. doi:10.3102/0013189X14523038

Fini, A. (2009). The technological dimension of a massive open online course: The case of the CCK08 course tools. *The International Review of Research in Open and Distance Learning*, *10*(5). Retrieved from http://www.irrodl.org/index.php/irrodl/article/view/643/1402

Hew, K. F., & Cheung, W. S. (2014). Students' and instructors' use of massive open online courses (MOOCs): Motivations and challenges. *Educational Research Review, 12*, 45–58. doi:10.1016/j.edurev.2014.05.001

Johnson, L., Adams Becker, S., Cummins, M., Estrada, V., Freeman, A., & Ludgate, H. (2013). *NMC horizon report: 2013 higher education edition*. Austin, TX: The New Media Consortium. Retrieved from http://www.nmc.org/pdf/2013-horizon-report-HE.pdf

Kizilcec, R. F., Piech, C., & Schneider, E. (2013). Deconstructing disengagement: Analyzing learner subpopulations in massive open online courses. In *Proceedings of the Third International Conference on Learning Analytics and Knowledge* (pp. 170–179). New York, NY: ACM. doi:10.1145/2460296.2460330

Koenig, R. (2014, October 1). Optimism about MOOCs fades in campus IT offices. *The Chronicle of Higher Education*. Retrieved from http://chronicle.com/blogs/wiredcampus/optimism-about-moocs-fades-in-campus-it-offices-survey-finds/54705

Kop, R. (2011). The challenges to connectivist learning on open online networks: Learning experiences during a massive open online course. *International Review of Research in Open and Distance Learning, 12*, 19–38.

Kop, R., & Fournier, H. (2011). New dimensions to self-directed learning in an open networked learning environment. *International Journal of Self-Directed Learning, 7*(2), 1–20.

Kop, R., Fournier, H., & Mak, J. (2011). A pedagogy of abundance or a pedagogy to support human beings? Participant support on massive open online courses. *International Review of Research in Open and Distance Learning*, *12*, 74–93. Retrieved from http://www.irrodl.org/index.php/irrodl/article/view/1041/2025

Lincoln, Y. S., & Guba, E. D. (1985). *Naturalistic inquiry*. Thousand Oaks, CA: Sage.

Liu, M., Kang, J., Cao, M. W., Lim, M. H., Ko, Y. J., Myers, R., & Schmitz Weiss, A. S. (2014). Understanding MOOCs as an emerging online learning tool: Perspectives from the students. *The American Journal of Distance Education, 28*, 147–159. doi:10.1080/08923647.2014.926145

Mackness, J., Mak, S., & Williams, R. (2010). The ideals and reality of participating in a MOOC. In L. Dirckinck-Holmfeld, V. Hodgson, C. Jones, M. De Laat, D. McConnell, & T. Ryberg (Eds.), *Proceedings of the 7th International Conference on Networked Learning 2010* (pp. 266–275). Lancaster: University of Lancaster.

Mackness, J., Waite, M., Roberts, G., & Lovegrove, E. (2013). Learning in a small, task-oriented, connectivist MOOC: Pedagogical issues and implications for higher education. *International Review of Research in Open & Distance Learning, 14*, 140–159.

Macleod, H., Haywood, J., Woodgate, A., & Alkhatnai, M. (2015). Emerging patterns in MOOCs: Learners, course designs and directions. *TechTrends: Linking Research & Practice to Improve Learning, 59*, 56–63. doi:10.1007/s11528-014-0821-y

McAuley, A., Stewart, B., Siemens, G., & Cormier, D. (2010). *The MOOC model for digital practice*. Retrieved from http://www.elearnspace.org/Articles/MOOC_Final.pdf

Miller, H., Haller, P., Rytz, L., & Odersky, M. (2014). Functional programming for all! Scaling a MOOC for students and professionals alike. In *Proceedings of the 36th International Conference on Software Engineering (ICSE"14) SEET Track*. Retrieved from http://infoscience.epfl.ch/record/190022

Milligan, C., Littlejohn, A., & Margaryan, A. (2013). Patterns of engagement in connectivist MOOCs. *MERLOT Journal of Online Learning and Teaching, 9*, 149–159. Retrieved from http://jolt.merlot.org/vol9no2/milligan_0613.pdf

Parr, C. (2013, May 9). MOOC completion rates "below 7%". *The Times Higher Education*. Retrieved from https://www.timeshighereducation.co.uk/news/mooc-completion-rates-below-7/2003710.article

Rice, J. (2013). What I learned in MOOC. *College Composition and Communication, 64*, 695–703.

Ruth, S. (2012). Can MOOC's and existing e-learning paradigms help reduce college costs? *International Journal of Technology in Teaching and Learning, 8*, 21–32.

Saadatmand, M., & Kumpulainen, K. (2014). Participants' perceptions of learning and networking in connectivist MOOCs. *MERLOT Journal of Online Learning and Teaching, 10*, 16–30.

Sanchez, E. (2013, October). Can UX design improve MOOC completion rates? *MOOC News and Reviews*. Retrieved from http://moocnewsandreviews.com/can-ux-design-improve-mooc-completion-rates/

Selingo, J. J. (2014, October 29). Demystifying the MOOC. *The New York Times*. Retrieved from http://www.nytimes.com/2014/11/02/education/edlife/demystifying-the-mooc.html

Siemens, G. (2005). Connectivism: A learning theory for the digital age. *International Journal of Instructional Technology and Distance Learning, 2*, 3.

Strauss, A., & Corbin, J. (1998). *Basics of qualitative research: Techniques and procedures for developing grounded theory*. Thousand Oaks, CA: Sage.

Veletsianos, G. (2013). Learner experiences with MOOCs and open online learning. *Hybrid Pedagogy*. Retrieved from http://learnerexperiences.hybridpedagogy.com

Waite, M., Mackness, J., Roberts, G., & Lovegrove, E. (2013). Liminal participants and skilled orienteers: Learner participation in a MOOC for new lecturers. *MERLOT Journal of Online Learning & Teaching, 9*, 200–215.

Yuan, L., & Powell, S. (2013). *MOOCs and open education: Implications for higher education – A white paper*. Retrieved from http://publications.cetis.ac.uk/2013/667

Zutshi, S., O'Hare, S., & Rodafinos, A. (2013). Experiences in MOOCs: The perspective of students. *American Journal of Distance Education, 27*, 218–227. doi:10.1080/08923647.2013.838067