Scaling up: Using MOOCs to Increase Accessibility and Personalization for Students

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***Abstract*— The focus of this case study is an instructor's reflection on her experience of transitioning her teaching from face to face to online to a massive open online course. The goal of the transition was to increase accessibility for students while maintaining the same level of engagement and application of content.**

Keywords-component; teacher education, online teaching, engagement

I. INTRODUCTION

The instructor taught a face to face seminar course in teacher education that accompanied an early childhood education internship for 10 years. She added an online seminar option to meet the needs of students who were completing internships in towns that were at least 50 miles away from campus. The online format worked as well or better than the face-to-face format in achieving the instructor's goals for responsiveness, availability, and clarity. The students were effectively supported in their internship and completing the seminar assignments. Because of the positive response from the pilot study, the instructor decided to continue to offer the seminars in the online format (Nelson, 2013).

Based on her success with delivering online instruction she was invited to be a co-facilitator of a Massive Open Online Course (MOOC) on K-12 Teaching in the 21st Century. The MOOC provided an overview of how teachers can use technology in the classroom to support connectivism, personalization, collaboration and reflection. As a co-facilitator, the instructor posted resources on the course topics and participated in discussion forums, twitter chats and webinars. The co-facilitators were also encouraged to share information from the MOOC using social media sites.

II. BACKGROUND

MOOCs are free online courses that are open to anyone. Participants can attend and take part in some or all of the offerings and sessions. They are no requirements for attendance or completing assignments unless one is earning a certificate for completion or a session badge for the course

In K-12 education there is an increase in online and blended course delivery. (see Ferdig, 2013 for full review). MOOCs are part of this trend. For the *K-12 Teaching in the 21st Century* MOOC there were over 700 high school students, teachers and teacher educators enrolled. The teachers enrolled to obtain professional development; learn about new technology tools and teaching techniques; network with colleagues in other districts and professors at various universities. The teacher educators were also able to make connections with teachers and school districts for recruitment and partnership opportunities. They also were able to co-teach with colleagues from other universities. The high school students experienced taking an online class; learning about the teaching profession, and networking with professors, teachers and other students.

The instructor in this study wanted to understand the impact of scaling up online instruction using a MOOC on student engagement and application of content.

III. METHOD

The teaching format for the MOOC included 5 one week modules on the following topics: Connectivitsm, Personalization, Collaboration, Reflection and Implementation. Each week the participants would use a process of **consuming** resources on the topic, **collaborating** by sharing their ideas and **creating** by using a new technology tool. The instructor compared the teaching process for MOOC (consume, collaborate and create) with the process she used for face to face and online teaching to determine if there was a difference in the level of student engagement (collaboration) and application (create) of content (consume).

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Table 1: Description of Teaching Techniques for each Format

	Face to Face	Online	MOOC
Consume	Power point presentations	Podcasts	Articles in a delicious account You tube videos
Collaborate	Small group work	Discussion threads on application activities	Discussion threads Twitter chats Webinar
Create	Electronic portfolio	Electronic portfolio	Demos of various technology tools (see list of tools in the appendix)

IV. RESULTS

In the consume category, the instructor used power point presentations to explain new topics. She adapted this practice for the online seminar by creating podcasts that were narrated power point presentations. The MOOC facilitators individually contributed links for articles, web sites and vide in a delicious account for each week of the course based on the topic f the module for that week.

The breadth and depth of the resources provided each week for the MOOC were exceptional. Students could choose 2 or 3 resources from the list to consume and then post a response in the discussion thread about the resource. Each week there were multiple responses to the full list of resources. The instructor noted the level of engagement and ownership was higher in the MOOC format than in the online and face to face formats. She believed the contributing factors for this difference were the variety in the type and length of resources. The resources were short and could be consumed in small bites rather than listening to a full 30 minute podcast or presentation.

For collaboration, in the face to face format the students worked in small groups on an application exercise for 20-30 minutes. The online group did the same exercises individually and shared their responses in a discussion group. The MOOC participants had asynchronous (threaded discussions) and synchronous discussions (webinars and twitter chats) on the topics and the tools. The instructor experienced higher levels of engagement during real time interactions in class or online than during the threaded discussions. The real time formats encouraged more expansion and connection between ideas, which in turn brought more people into the discussion more often.

The creating process in the face to face and online format focused on preparing an electronic portfolio that documented the students' field experiences. The portfolios were turned into the instructor and viewed only by the instructor. In the MOOC, each week the participants used various technology tools to create teaching materials such as presentations, books, and blogs. They posted their creations on the discussion board. The final project for the MOOC was to create a lesson plan that integrated content or tools from each week; or organize the weekly content into a portfolio, professional development presentation or a proposal to improve how they teach. The instructor believed the final project options in the MOOC provided the highest level of personalization for the learner, which in turn resulted in more meaningful and relevant products for future use than the electronic portfolios in the face to face and online formats.

V. CONCLUSION

In sum, the MOOC format worked as well or better as the face-to-face format for increasing engagement and personalization in the content. The participants in the MOOC were able to select their readings from a variety of sources and formats. They could collaborate in synchronous and asynchronous formats. They were able to create learning tools each week based on what they were learning and develop a final project that they could use for future teaching or work experiences.

VI. RECOMMENDTAIONS

For the following reasons, the instructor is convinced that MOOCs are an effective professional development tool for teachers, students and teacher educators.

1. The MOOC format provides a unique student, teacher and teacher educator networking experience.
2. MOOCs provide current information on topics from a variety of perspectives.
3. MOOCs are designed to show participants how to use new technology tools.
4. MOOCs help participants evaluate the usefulness of new techniques and tools.

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REFERENCES

[1] Ferdig, R. E. (2013). *What massive open online courses have to offer K–12 teachers and students*. Michigan Virtual Learning Research Institute. Retrieved from: http://media.mivu.org/institute/pdf/mooc_report.pdf

[2] Nelson, R.F. (2013). *The impact of the online format with an instructor's engagement with students in a teaching seminar*. Conference Proceedings for the 3rd International Education and e-Learning Conference, Singapore

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Appendix 1:
Resources used in The K-12 Teaching in the 21stCentury MOOC

Blogger is a tool for self-publishing blogs. Blogs allow users to share ideas, materials, and experiences. Teachers can create blogs to develop relationships with other teachers, share lesson plans, and establish professional identities. Students can create blogs as a way to demonstrate knowledge and participate in learning communities.

Collaborize Classroom is an educational platform for teachers and students to communicate with one another. It can be found at http://www.collaborizeclassroom.com.

Delicious is an online social bookmarking site that allows users to save and share their favorite links across the Web.

DIY is a student friendly site that allows children to upload and share videos that demonstrate their projects, experiments, interests, and skills. It can be found at https://diy.org/skills.

ePals is a global community that allows teachers and students to connect with one another through email. ePals can be found at http://www.epals.com.

Foliofor.me and Foliospaces are two sites that allow for the creation and sharing of ePortfolios. FolioSpaces can be found at https://www.foliospaces.org.

Instagram and Flickr are two photo sharing tools. Instagram can be found at http://instagram.com.

Jing is a screencasting tool that allows an individual to take still shots of a computer screen. Narration can also be added to the video, which can then be shared in multiple formats. Jing can be found at http://www.techsmith.com/jing.html.

Kidblog is a safe and secure platform for students to write and publish individual blogs. . Kidblog can be found at http://kidblog.org/home.

Meograph is a tool that allows individuals to create virtual stories that have graphics, text, videos, and context. It can be found at www.meograph.com.

Mozilla Popcorn Maker is a mashup tool that allows users to remix web content. Newly created content can then be imbedded onto other websites. Mozilla Popcorn Maker can be found at https://popcorn.webmaker.org.
Padlet is an online tool that allows users to respond in real-time to topics in the form of text, videos, graphics, and documents. Padlet can be found at http://padlet.com.

PBWorks provides a secure environment for users to share knowledge, files, and projects. PBWorks for Education can be found at http://pbworks.com/pbworks-basic-edition.

Popplet is a mapping tool that allows users to make visual connections between concepts and ideas. Poplet can be found at http://popplet.com.

Prezi is a cloud based presentation tool that allows users to imbed text and graphics on a single canvas instead of the traditional multiple slide format. It can be found at: http://www.prezi.com

Storybird is a creative storytelling platform where individuals create stories based off of illustrations and artwork. Storybird can be found at http://storybird.com.

Slideshare is an online educational community that allows users to upload presentations that can be shared in numerous social media outlets. SlideShare can be found at http://www.slideshare.net.

Twitter is an online social networking platform. Users can send and read “tweets” or messages that are limited to 140 characters.

Vialogues is an online discussion platform that allows users to have time-stamped conversations about uploaded videos. Vialogues can be found at https://vialogues.com.

Voki is an online tool that allows for the creation of talking, animated characters. It can be found at www.voki.com.

Weebly is a user-friendly tool that allows for the creation of personalized websites and blogs. It can be found at www.weebly.com.

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