The Digital Learning Transition MOOC for Educators: Exploring a Scalable Approach to Professional Development

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T raditionally, K–12 professional development has been comprised of a few days per year when educators are released from their teaching or administrative responsibilities to attend workshops. Typically, these workshops provide information through "sit and listen" presentations that, as research repeatedly demonstrates, may increase awareness of changing expectations but do not lead to changes in educational practices or improvements in student achievement.

While much is known about effective professional development practices, the resources available to meet this critical need are limited and have been declining in many states and districts. Using traditional professional development approaches is far too costly and of limited effectiveness. New approaches are required that embody the principles of effective professional development and are scalable, accessible, and flexible to meet the needs of different educators. The Massive Open Online Course for Educators (MOOC-Ed) provides opportunities to use proven, research-based practices, along with new technologies and facilitation approaches to deliver high-quality professional development at scale.

In spring 2013, the **Friday Institute for Educational Innovation at North Carolina State University** (the Friday Institute), in partnership with the **Alliance for Excellent Education** (the Alliance), developed and implemented a **MOOC-Ed**. While MOOCs are being developed and offered by many universities, the MOOC-Ed explores a specific model designed to provide K–12 educators with self-directed, supported, flexible, yet structured learning opportunities. The first MOOC-Ed focused on the digital learning transition, and the qualitative and quantitative data captured throughout the course shed light on district and school leaders' needs around digital learning planning as well as trends and patterns that could influence the development of MOOC-Eds as cost-effective personalized means of professional development.

Figure 1

The Digital Learning Transition (DLT) MOOC-Ed was organized around a framework based on the Alliance's **Project 24** and the Friday Institute's **Digital Learning Collaborative**, which have been designed to help K–12 educators plan digital learning initiatives to meet district and school goals. As shown in Figure 1, this framework incorporates four cyclical processes and seven key elements that must be addressed for a digital learning initiative to successfully improve student learning.
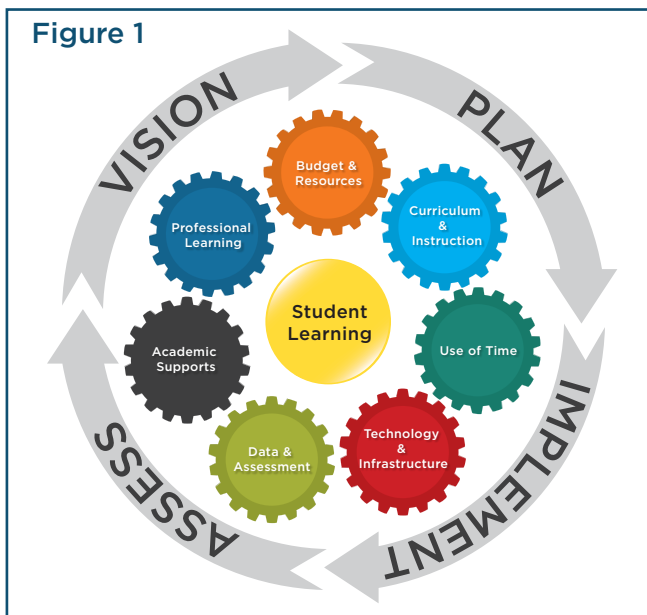
The course helps educators:

- understand the potential of digital learning in K–12 education;

- assess progress and set future goals for their schools or districts; and

- plan how they and their colleagues will proceed to achieve those goals.

This report describes the design of the first DLT MOOC-Ed; results, as determined from web analytics, analyses of online discussions, and survey data; and lessons learned about this new approach to professional development.

A full report with more data and details will be available at the Friday Institute MOOC-Ed website: http://www.mooc-ed.org/.

MOOC-Ed Design Guidelines

DLT MOOC-Ed: Effective professional development that is flexible and personalized in a structured environment

Like other MOOCs, the Digital Learning Transition (DLT) MOOC-Ed was designed with the goals of providing a scalable, accessible, and flexible approach to learning. This MOOC-Ed, however, is aligned specifically with principles of effective professional development, so that it incorporates the following:

1. **Self-directed learning** through which participants personalize their own goals, select among a rich array of resources, and decide whether, when, and how to engage in projects and discussions to further their own professional learning.

> Why have kids follow the airplane model of education—*Come in, sit down, face the front, turn your cells off, and listen!*—when you have all these tools?
>
> —Max Gallo,
> MOOC-Ed Participant
> (Australia)

2. **Peer-supported learning** that enables participants to learn from each other through engagement in online discussions, peer reviews of projects, ratings of posted ideas, sharing of recommended resources, and crowdsourcing of lessons learned. In addition, those participating in school or district teams receive support from their collaboration with local colleagues.

3. **Authentic project-based learning** through which participants work on plans for their own schools or districts as a central organizer for the DLT MOOC-Ed.

4. **Data-informed activities** that enable participants to collect new data and use existing data to inform their work during the MOOC-Ed and thereafter.

5. **Case-study approaches** to build upon examples of best practices, enhanced by leaders from the case-study schools and districts who engage in discussions, respond to participants' questions, and elaborate on lessons learned.

6. **Anytime, anywhere learning** through which educators engage as their time allows, and from anywhere they have access to the web via a computer, tablet, or smartphone.
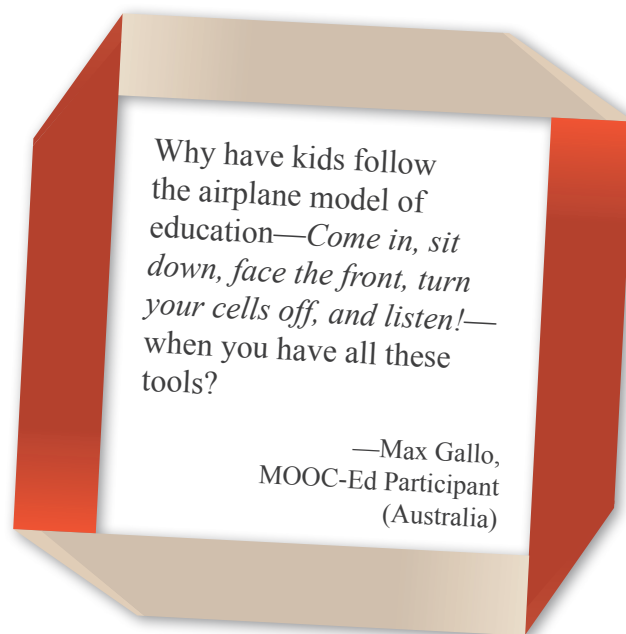
Digital Learning Transition MOOC-Ed Course Format

The seven (week-long) units of the DLT MOOC-Ed include brief text with essential questions and a short video in which Mary Ann Wolf and Glenn Kleiman, the course instructors, introduce the unit content and expectations. The DLT MOOC-Ed offers flexible ways to engage in each unit during which participants

• **review core and recommended resources** with both video and print (including resources from Edutopia, TED, the Alliance for Excellent Education, Power On Texas, the Consortium for School Networking, and the U.S. Department of Education);

- **participate in discussions** about the course content and how it relates to their schools and districts;

- **learn from a panel of national experts** from schools, districts, and other organizations;

- **engage in planning projects** and then provide and receive peer feedback about the projects;

- **crowdsource** the most important ideas and valuable strategies to incorporate into school and district plans; and

- **complete surveys** about the DLT MOOC-Ed at the midpoint and end of the course.

Course Overview

Pre-Course District or School Self-Assessment Survey

Unit 1: Envisioning Schools in the Year 2020

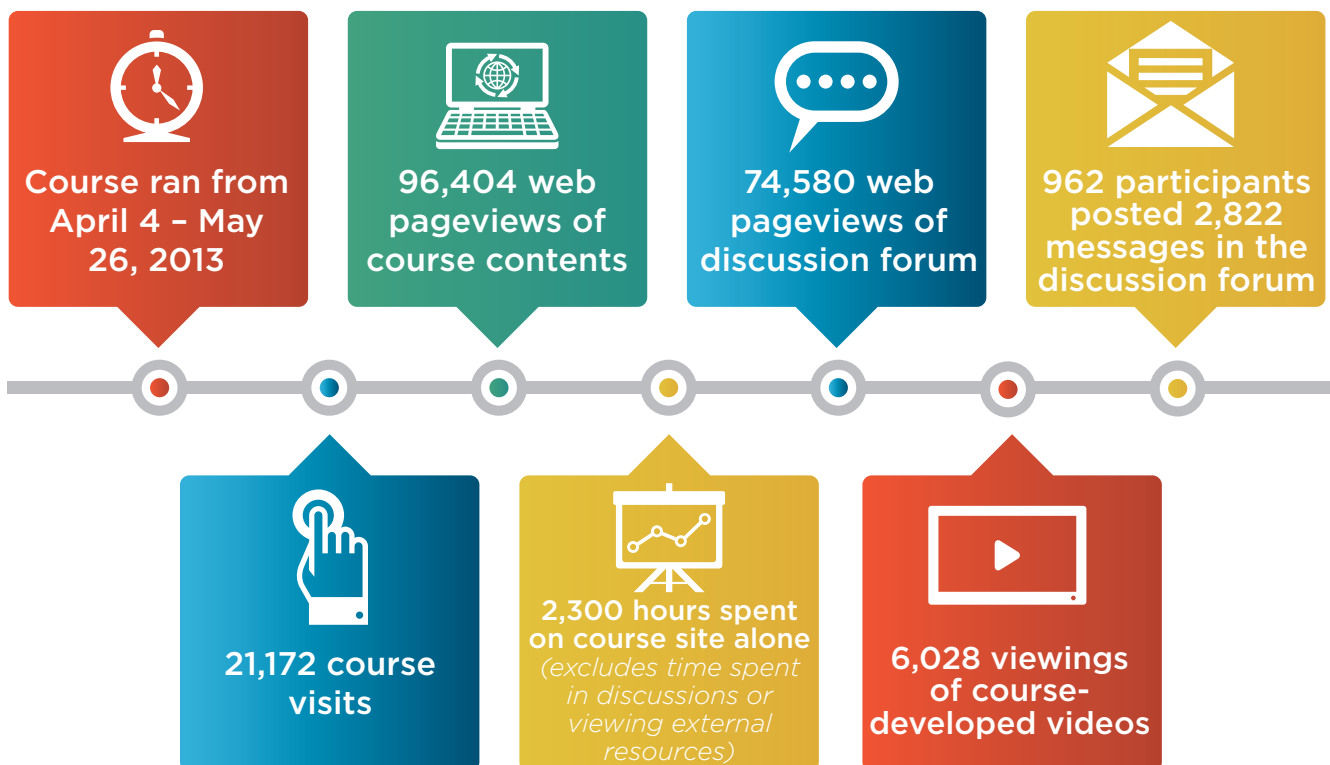**Unit 2:** Changing the Culture of Teaching and Learning

Unit 3: School and District Digital Learning Transitions

Units 4 and 5: Planning for Selected DLT Elements.

Unit 6: Leading a Successful Digital Learning Initiative

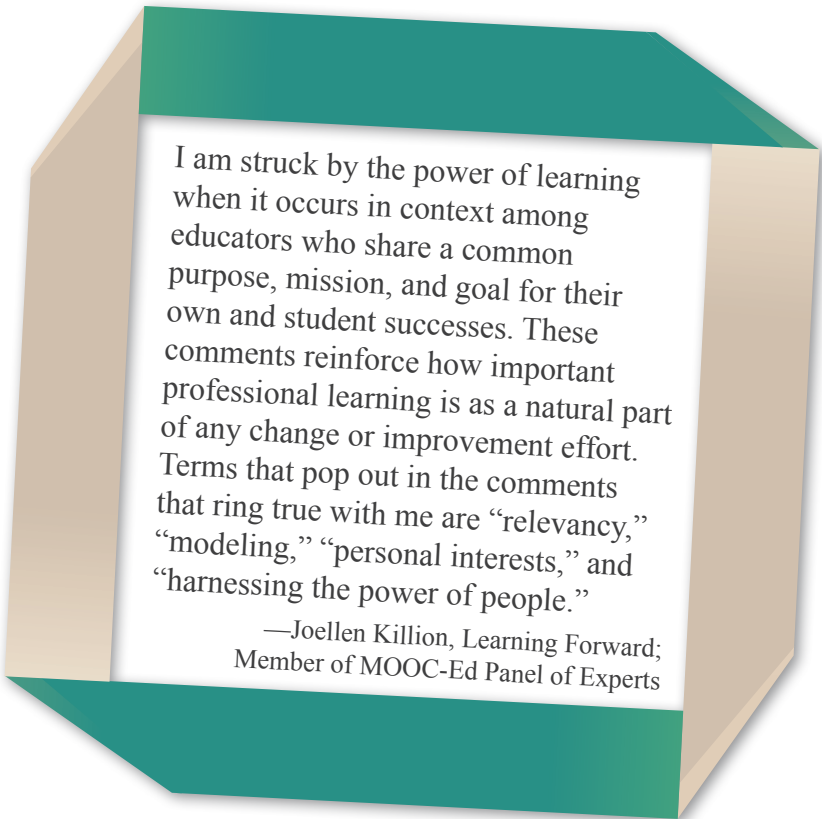**Unit 7:** Wrap Up and Next Steps

Digital Learning Transition MOOC-Ed Engagement

Course ran from April 4 – May 26, 2013

96,404 web pageviews of course contents

74,580 web pageviews of discussion forum

962 participants posted 2,822 messages in the discussion forum

21,172 course visits

2,300 hours spent on course site alone *(excludes time spent in discussions or viewing external resources)*

6,028 viewings of course-developed videos

A full report with more data and details will be available at the Friday Institute MOOC-Ed website: http://www.mooc-ed.org/.

Digital Learning Transition MOOC-Ed Key Themes

The course instructors initiated guiding questions in each unit, and participants could introduce ideas and questions within those discussions or start their own. Throughout a wide range of discussion topics, several themes consistently emerged in the comments and observations, including the following:

1. **Leading with education initiatives rather than technology initiatives.** Participants noted the importance of focusing on the educational and learning goals and outcomes rather than on the technology or devices.

2. **Changing the culture of teaching and learning to one that has a student-centered focus.** Participants shared experiences and aspirations toward a digital learning transition that embodies a transformational shift in the culture of teaching and learning. They emphasized that this is not incremental change or using technology to do the same things in a faster, digitized way, but rather a rethinking of instruction and learning experiences.

3. **Identifying, implementing, and sustaining professional learning opportunities.** Professional development was an almost ubiquitous theme throughout every discussion in the MOOC-Ed. This critical factor is recognized by participants, but implementing and sustaining effective professional development continues to be a struggle for many districts.

4. **Recognizing that leadership is central to the digital learning transition.** Along with professional development, leadership emerged throughout expert panels and discussions as essential to successful implementation of a school- or districtwide implementation of digital learning to truly change teaching and learning. This includes teacher, school, and district leaders working in a team that has a vision and plan for implementation.

5. **Ensuring buy-in.** Participants in the MOOC-Ed frequently discussed the critical importance of stakeholder buy-in, including teachers and administrators in schools and its district, as well as buy-in from parents, the community, and school board members.

> I am struck by the power of learning when it occurs in context among educators who share a common purpose, mission, and goal for their own and student successes. These comments reinforce how important professional learning is as a natural part of any change or improvement effort. Terms that pop out in the comments that ring true with me are "relevancy," "modeling," "personal interests," and "harnessing the power of people."
>
> —Joellen Killion, Learning Forward; Member of MOOC-Ed Panel of Experts

While these themes are not exhaustive, they represent key areas that participants identified as challenges or potential enablers for the digital learning transition. As with the Project 24 framework used for this MOOC-Ed, the areas identified in these themes must be tackled simultaneously to plan for and implement the digital learning transition.

As a new vehicle for professional development, there are many questions about MOOC-Eds and much to be learned about their potential use by educators and other professionals. Data obtained through web analytics, online surveys, and analyses of the discussion forums and submitted projects provides insight into the key questions. This data and analyses are from the initial Digital Learning Transition (DLT) MOOC-Ed; future DLT MOOC-Eds will provide additional data that will help refine the professional learning approach. Lessons learned from the initial DLT MOOC-Ed include the following:
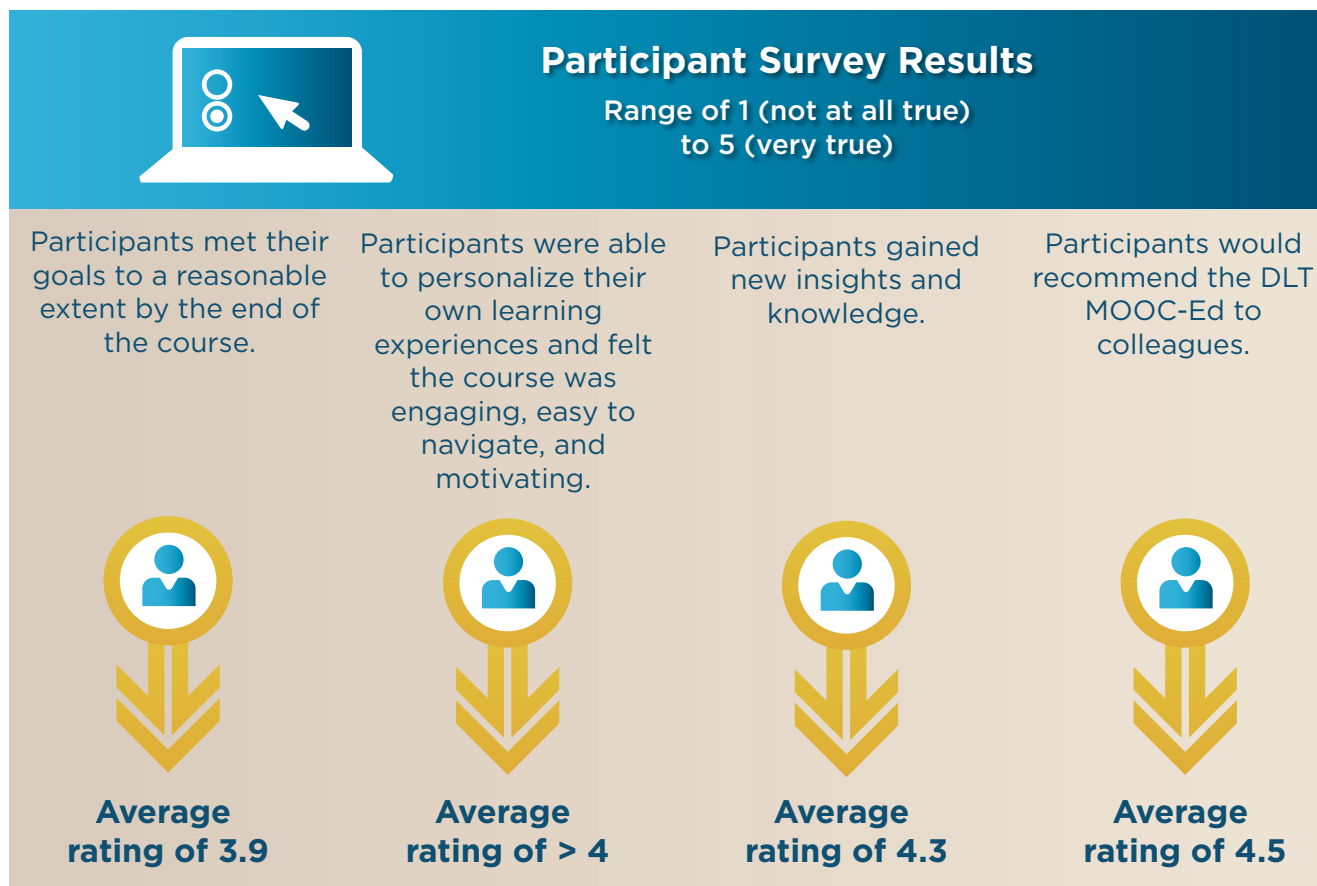
1. **Continue DLT MOOC-Eds to provide much-needed professional development.** The DLT MOOC-Ed approach is clearly of interest to many educators; participants reported that it provided valuable lessons that inform their professional practices. A total of 2,665 individuals registered for the DLT MOOC-Ed, and represented all fifty states, the District of Columbia, and sixty-eight countries. The pre-course survey data shows that 70 percent of registrants were from public noncharter schools; 18 percent were from private schools; and 4 percent were from public charter schools. The table below shows the breakdown of primary roles/areas of responsibility of participants.

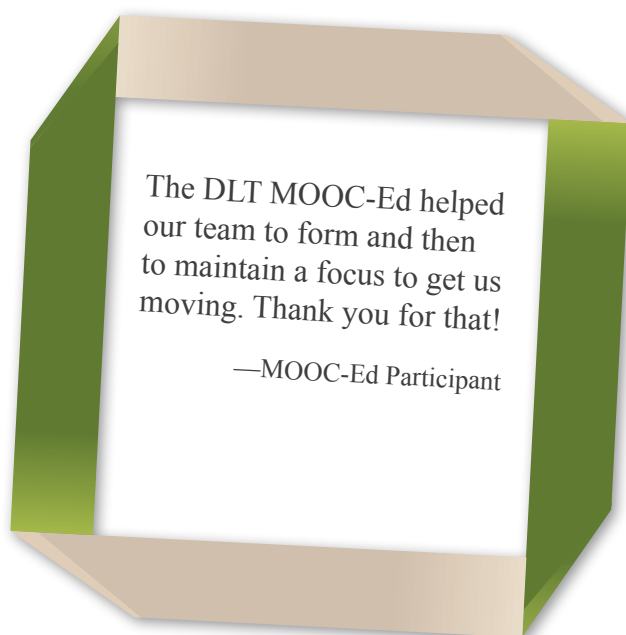| Primary Role/Area of Responsibility	Number	Percentage
District administrator (superintendent, curriculum, professional development, technology infrastructure, finance)	819	31%
Instructional technology	535	20%
Classroom teacher	465	17%
Other education profession (e.g., consultant, university faculty, parent, student)	344	13%
School administrator	302	11%
Library/media	143	5%
Special education	57	2%

The majority of participants reported significant work experience in K–12 education, with 69 percent having more than ten years of experience. This is consistent with the DLT MOOC-Ed's focus on leadership roles.

As part of the registration process, participants were asked to identify three personal goals they would like to reach by the end of the MOOC-Ed. Responses covered a wide range, but many wanted to learn how to lead change in their school or district. Others were specifically interested in creating plans and ensuring ownership among stakeholders. In addition, most hoped to connect with other educators and hear about districts that had been successful in the digital learning transition.

Surveys provided at the midway point and at the end of the MOOC-Ed asked participants to rate a series of statements about the course, using a scale from 1 (not at all true) to 5 (very true). While only a limited number of participants completed the surveys, results showed the following:

Participant Survey Results
Range of 1 (not at all true) to 5 (very true)

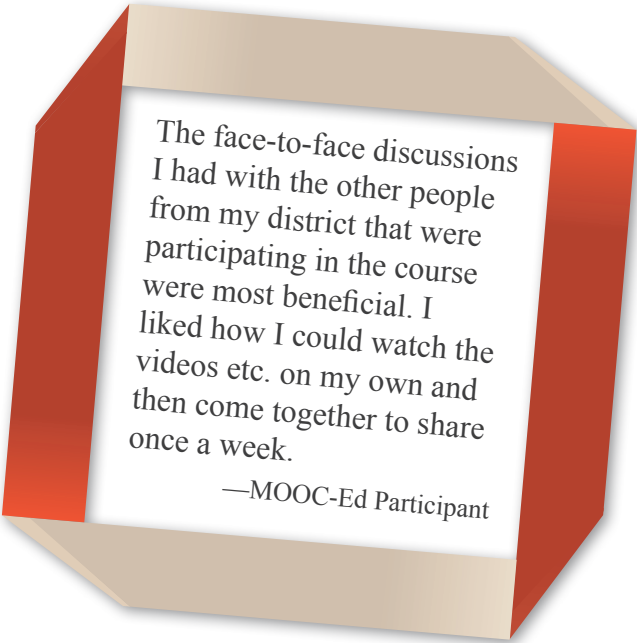| Participants met their goals to a reasonable extent by the end of the course.	Participants were able to personalize their own learning experiences and felt the course was engaging, easy to navigate, and motivating.	Participants gained new insights and knowledge.	Participants would recommend the DLT MOOC-Ed to colleagues.
Average rating of 3.9	**Average rating of > 4**	**Average rating of 4.3**	**Average rating of 4.5**

2. **Design MOOC-Eds to serve a diverse group of participants.** The MOOC approach, in general, is designed to serve large audiences and therefore must address participants with different goals, roles, interests, backgrounds, school contexts, and learning preferences. The DLT MOOC-Ed provided a variety of resources, discussions, and projects. On the final survey, participants were asked to rate the different components of the MOOC-Ed on a scale from 1 (not at all valuable) to 5 (very valuable), and each component received a rating of approximately 4.0.

3. **Provide flexibility to accommodate participants' schedules.** In the first DLT MOOC-Ed, Units 1, 2, and 3 provided many resources on the digital learning transition; Units 4 and 5 covered all seven of the elements of a successful digital learning transition initiative planning; and Unit 6 addressed leadership.

> The DLT MOOC-Ed helped our team to form and then to maintain a focus to get us moving. Thank you for that!
>
> —MOOC-Ed Participant

The web analytics show that participants often visited the course site for short periods of time throughout the day and night, during which they may have viewed a video, downloaded an article, and/or viewed and contributed to a discussion. This indicates that busy professionals often participated during short periods between other activities, or naturally occurring down time, rather than in multi-hour blocks required by traditional professional development.

Feedback suggests that the course may have covered too much too quickly. According to survey data, the average participant spent a total of 3–4 hours per week over multiple visits to the course. In many instances, work was completed in the unit after the scheduled week. Setting up the course to allow for flexibility around different participants scheduled is essential for a successful MOOC-Ed.

> The face-to-face discussions I had with the other people from my district that were participating in the course were most beneficial. I liked how I could watch the videos etc. on my own and then come together to share once a week.
>
> —MOOC-Ed Participant

4. **Recommend and support participation by local teams.** The DLT MOOC-Ed content is well suited for local groups working together as school or district planning teams, which allows team members to bring different areas of expertise, share the work, and reflect together on the implications of what they learn in their local context. From the pre-course survey, 45 percent of respondents planned to participate with local colleagues and 55 percent as individuals. Analysis of participants' comments from the final survey and discussions indicates that participation with local colleagues should be strongly encouraged when possible. Future DLT MOOC-Eds will also provide an opportunity for cohorts, such as states, districts, or other organizations, to have a separate discussion space to better support local teams as they participate in the MOOC-Ed.

5. **Support personalized definitions of success and completion.** Since different participants have different goals for taking the DLT MOOC-Ed, success was defined by whether they fulfilled their goals, not by whether they completed a set of course requirements determined by the developers. For example, many participants were most interested in the first units that addressed global issues of vision, goals and the changing culture of teaching and learning, but not in the later units that addressed more detailed elements of planning. In the future, we will have alternative criteria of course completion for those who have different goals.

> We need to rise above the simplicity of a cut-and-paste culture.
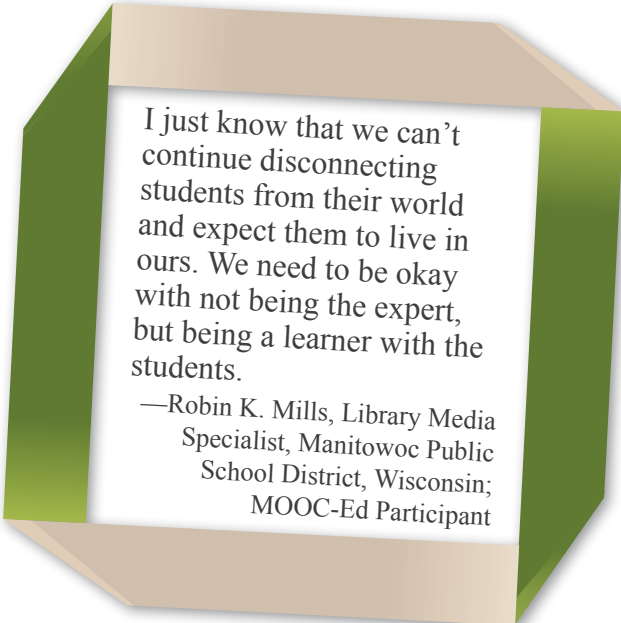>
> —MOOC-Ed Participant

Conclusion

The need for large-scale educator professional development is clear, but the funding available to meet this critical need is limited and has been declining in many states and districts. Current professional development approaches are costly, often ineffective, and unable to reach all educators. New approaches are required that embody the principles of effective professional development that are scalable, accessible, sustainable, and cost-effective. The approach to Massive Open Online Courses for Educators (MOOC-EDs) is designed to meet these requirements.

For many engaged in the Alliance's Project 24 initiative, the Digital Learning Transition (DLT) MOOC-Ed provided a structured approach to engaging with the resources and in the planning process. The access to resources and interactions with experts through Google Hangout panels and discussions, as well as the projects that involved creating goals and plans, helped set up a recommended timeline and basis for further work in districts and schools.
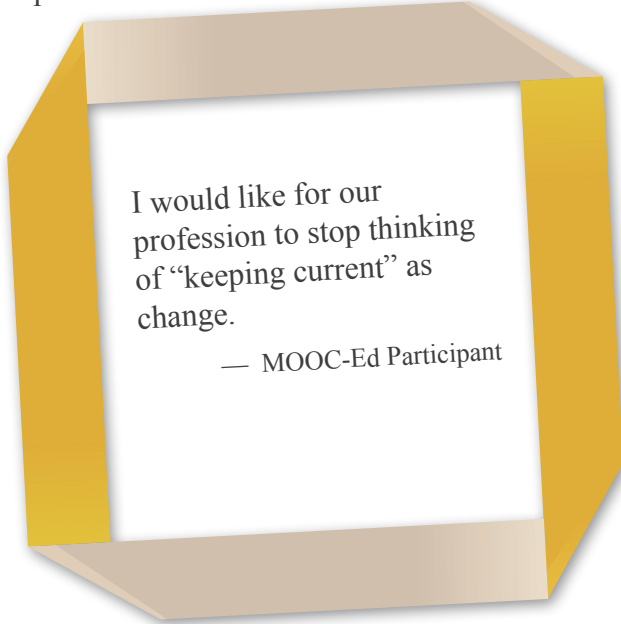
While the data from this first DLT MOOC-Ed provided an initial understanding of many aspects of the experience for participations and provided a strong foundation for future MOOC-Eds, additional research is needed to further understand how to optimize participants' engagement, provide opportunities for self-directed and peer-supported learning, and develop MOOC-Eds that provide increasingly valuable professional learning for educators.

As a first effort, the DLT MOOC-Ed was a success in providing valuable learning experiences to a large number of participants. It provided a proof-of-concept of MOOC-Eds for professional development, along with extensive data to inform improvement in future. Information on future MOOC-Eds, including future offerings of the DLT MOOC-Ed, is available at http://www.mooc-ed.org/.

> I just know that we can't continue disconnecting students from their world and expect them to live in ours. We need to be okay with not being the expert, but being a learner with the students.
>
> —Robin K. Mills, Library Media Specialist, Manitowoc Public School District, Wisconsin; MOOC-Ed Participant

> I would like for our profession to stop thinking of "keeping current" as change.
>
> — MOOC-Ed Participant