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Oak Foundation MOOC-Ed Report

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Summary

This evaluation brief provides a summary of the first implementation of the Learning Differences MOOC for Educators (MOOC-Ed) developed with support from the Oak Foundation. The Learning Differences MOOC-Ed was designed to help educators better understand learning differences and how they apply to students, to foster a growth mindset or problem solving approach among new teachers as they work with students, and to provide teachers with job-embedded strategies that will help them as they meet the diverse needs of all students.

Sections in this brief directly address the impact on educators' understanding of content and pedagogy, as well as their effectiveness in supporting changes in classroom instruction. Initial findings suggest that the Learning Differences MOOC-Ed has indeed been effective in supporting the professional growth of participating educators. Specifically, the vast majority of educators report that, as a result of their participation, they have deepened their understanding of learning differences, and have applied new knowledge and skills to make positive changes to their professional practice. To improve future iterations of this MOOC-Ed, participants recommended improvements to the discussion forums, more opportunities for deeper peer engagement, and greater differentiation.

Learning Differences MOOC-Ed Model

Beginning in 2012, the Friday Institute for Educatoinal Innovation launched a set of massive online open courses (MOOCs) for educators to explore whether MOOC-like approaches could be adapted to address the professional learning needs of educators, providing scalable, accessible, and cost-effective professional development (PD). MOOC-Eds build on models of effective professional development, professional learning communities, and online communities of practice, and are designed to help educators improve their professional knowledge and practice. The Learning Differences MOOC-Ed is one of six MOOC-Eds that have been developed through the Friday Institute MOOC-Ed Initiative.

Goals. With funding from the Oak Foundation, the Learning Differences MOOC-Ed was created to help teachers better understand learning differences and how they apply to all students; foster a growth mindset or problem solving approach among new teachers as they work with students; and provide teachers with job-embedded strategies that will help them as they meet the diverse needs of all students.

Program Components. The Learning Differences MOOC-Ed was developed based on the following four core design principles:

Multiple voices allow participants to learn about the perspectives of other teachers and administrators and those of students, researchers, and experts in the field.

Self-directed learning enables participants to personalize their experience by identifying their own goals, selecting among a rich array of resources, and deciding whether, when, and how to engage in discussions and activities to further their own learning and meet their personal goals.

Peer-supported learning occurs when participants engage in online discussions, review each other's projects, rate posted ideas, recommend resources, crowdsource lessons learned, and participate in Twitter chats and other exchanges appropriate to the individual course.

Practice-based learning takes place through the use of case studies and classroom- and school-related projects, the development of action plans, and other activities that center participants' work on critical problems of practice and data-informed decision making in their own classrooms, schools, or districts.

Program Participation. To date, the six-week Learning Differences MOOC-Ed has been offered four times (Fall 2014, Spring 2015, Summer 2015, and Fall 2015) with a total of 6,300 participants actively engaged in the

course. Additionally, just under 900 participants requested certificates of completion. The Learning Differences MOOC-Eds attracted educators from around the globe and across the United States. Based on data from course registration forms, participants also reflect a variety of educational roles: the majority were Classroom Teachers (44%), followed by Others (22%) – which could include roles such as Administrators or Curriculum and Instruction Specialists, Special Educators (17%), School Support Staff (7%), and Professional Development Facilitators (6%).

Data Collection and Analysis. Data sources for this report include MOOC-Ed Registration Forms, Unit Feedback Forms, End-of-Course Surveys, Participant Interviews, and Pre-Post Case Study Reflections. All Learning Differences MOOC-Ed participants complete a registration form for each course; the form consists of self-reported demographic data, including information on professional roles and work settings, years of experience, gender, level of education, and personal learning goals. Unit Feedback Forms were embedded at the end of each unit in the MOOC-Ed; these short forms consisted of five-close ended items aligned to the evaluation questions and two open-ended items requesting participants describe the most valuable aspect of the unit and recommendations for improving the unit. At the completion of each Learning Differences MOOC-Ed course, participants were asked to complete an End-of-Course Survey; this survey consisted of roughly 30 close-ended items and four open-ended items designed to solicit participants' perceptions of the impact and effectiveness of the course. Registered participants were also invited to submit a pre-course and post-course "growth mindset" reflection. The case study provided a one-page scenario of a student (containing a profile of his or her learning differences, strengths, affinities, and areas in need of improvement). Participants were asked to write a reflection indicating how they would approach the scenario student and at the conclusion of the course, participants who completed pre-course reflections were sent links to complete post-course reflections using the same case study (demonstrating ways in which their thinking had changed and to reflect on what ways, if any, they would approach the student differently – e.g., new or different strategies they might use).

Analysis of all quantitative data (e.g., close-ended survey results) consisted of item-level descriptive statistics using Excel software, and thematic analyses of the qualitative data (e.g., open-ended survey responses, case study reflections) were conducted using Atlas.ti software.

Illustrative Quotes

Valued Resources

"I think hearing the student stories impacted me the most. I have many years of experience in working with students who struggle in a variety of ways, but to hear students so eloquently verbalize their feelings and relate their experiences reminds me of why I do what I do and that there is always room to improve."

"I loved the resources, which were very useful for aiding understanding and giving me new sources of knowledge about topics of differentiation."

Peer Support

"The discussions were very engaging and it was very helpful to see and learn more about other professionals' struggles and learn from them too."

"I enjoyed reading responses from other teachers at the same grade level. So many courses and workshops only focus on elementary level and tell high school that we can adjust it to meet our needs – easier said than done!"

Self-Directed Learning

"I valued being able to participate at my own pace and have the time to absorb the content and explore more deeply areas that resonated."

"The discussion posts were helpful in a self-reflective way. Although I appreciated reading what others said, it was most helpful for me to take some time to think and then write about the material presented in the videos and units. When working as a teacher it can be difficult to find the time to just sit and think and reflect on what's working and what's not working and why and most importantly, how to move forward."

Design Effectiveness

Educators found the course resources – videos, readings, and practioner tools – to be extremely valuable for supporting their practice. MOOC-Eds are designed to support the direct application of content to practice, and educators reported that the resources provided through the Learning Differences course were extremely useful in this regard. When participants were asked to rate the various design components of the course in terms of effeciveness, across all iterations, course videos received the highest rating (6.5 out of 7, on a 7-point scale where 1 was "very ineffective" and 7 was "very effective"), followed by course readings (6.4), and practioner tools (6.3). Course videos also fulfilled the multiple voices aspect of design, and this was confimed by participants: 97% of educators agreed that the online professional development "was enhanced by the expertise of practitioners and/or leaders in the field." Correspondingly, in open-ended responses, participants reported valuing student videos (as they offered insight into the learning struggles students face in school), as well as videos of "experts" (because they provided relevant background information and research findings related to learning differences); educators also appreciated hearing from and seeing real classroom teachers discuss their experiences with and perspectives on learning differences. MOOC-Ed participants frequently characterized videos as eye-opening, helpful, and full of information and ideas. Participating educators also found immediate value in the access to new and innovative interactive resources, online tools, articles, simulations, apps, and websites provided by the MOOC-Ed (particularly Learner Profiles).
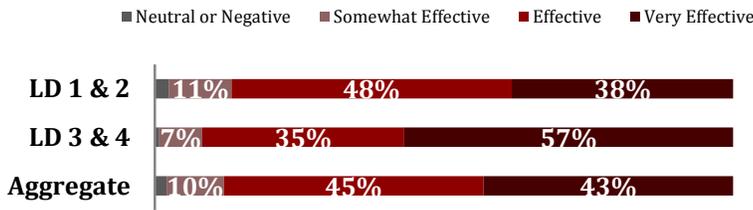
Opportunities for discussion and collaboration with peers also supported participants' learning. MOOC-Eds are designed to foster a collaborative community of learners. Discussion forums are the primary tool for supporting this goal and were used to encourage participants to share ideas, ask questions, and provide constructive feedback. The Learning Differences MOOC-Eds made extensive use of discussion forums for encouraging participants to share their knowledge and experiences and engage in dialogue and debate to further extend their understanding. In addition to the immediate satisfaction that participants found through interactions in the online forum, MOOC-Ed participants also indicated that the formation of social relationships and engagement in extended discussions contributed to their learning. Interactions with peers enabled participants to consider new perspectives, share ideas and experiences, give and receive support for challenging situations, and more generally, feel like part of a "safe" and "caring" community.

Educators reported MOOC-Eds are helping them self-direct their learning. MOOC-Eds are designed to allow educators to tailor the experience to their professional needs and interests, as well as help participants gauge progress towards their personal learning goals. At course end, 97% of survey participants agreed that the MOOC-Ed enabled them to personalize their learning through differentiated resouces and activities, 97% also agreed the course provided opportunities to investigate self-identified problems or areas of interest, and 94% felt the course provided activities and/or resources (e.g., self-assesments, peer assessment, feedback) that helped them gauge their learning. Similarly, qualitiative data revealed participants' appreciation of flexibility in terms of pace ("having the freedom to complete the unit in my own time") as well as personalization, and noted that the MOOC format allowed vital time for reflection.

Impact on Educators

Educators reported courses were effective in supporting their learning goals and practice. On End-of-Course Surveys, 97% of educators agreed that course units helped them progress toward their personal and professional learning goals. Additionally, 98% of participants reported that the MOOC was effective in suporting positive changes to their practice.
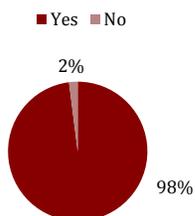
How effective was the MOOC in supporting positive changes to your practice?

■ Neutral or Negative ■ Somewhat Effective ■ Effective ■ Very Effective

LD 1 & 2	11%	48%	38%
LD 3 & 4	7%	35%	57%
Aggregate	10%	45%	43%

Educators reported gaining new understandings, knowledge, skills, and strategies. In interviews and on open-ended survey items, educators frequently reported that the content and activities helped them "grow," "develop," and "deepen" their understanding, particularly around common misconceptions about students' behavior and needs. Further, educators who completed the post-course reflection exhibited knowledge gained throughout the course. In responding to the various student cases, participants were able to identify students' specific learning differences and apply core concepts referenced throughout the MOOC-Ed (e.g., working memory, executive function, motivation, self-efficacy, student reflection). Additionally, respondents offered new strategies and ideas they gained throughout the MOOC-Ed for engaging students and building on strengths in relation to students' learning differences in the post-reflection (e.g., asking more open-ended questions, establishing genuine dialogue with students, utilizing visual or sound cues).

Educators reported applying course concepts to their professional practice, and demonstrated shifts in their mindsets and approaches to students. When asked on End-of-Course Surveys if they had attempted to make changes in their professional practice as a result of participation, 98% of educators answered "Yes." Post-course case study responses also demonstrated shifts in educators' mindsets and general approaches to students: looking for students' strengths and using those as opportunities for growth/focusing on the positives, more concern for students as individuals and actively pursuing their growth holistically, and viewing the student-teacher relationship more equitably. Educators also displayed how their growth mindsets facilitated more specific shifts in practice: involving students in the development of their action plans, giving students voice and ownership across the classroom environment, and looking for new ways to engage diverse groups of students overall.

Have you attempted to make changes in your practice?

■ Yes ■ No

2%

98%

% Educators Who Agreed That Course Units...

Deepened my understanding of the topics addressed	95%
Helped me progress towards my personal learning goals	94%
Supported the application of course content to my professional practice	94%

Illustrative Quotes

Learning Goals

"This course has renewed my energy and focus on teaching all students and not just the ones that are struggling. My mind and eyes have been 'reopened' to the entire classroom and not just the few students who 'stand out' seeking attention in not such positive ways! I want all students to achieve to the best of their ability and I need to do more with the average and above average students to keep them engaged in their desire to be successful."

Knowledge & Skills

"The knowledge and insight gained from this course was invaluable. The articles and videos often changed my perspective and reminded me of what's important. This was refreshing and exhilarating... Exactly what I needed!"

"I have changed some of my strategies in helping some of my students with attention issues – such as giving them signals, removing distractions, enabling their success, talking out the language of using executive functioning skills, etc."

Impact on Practice

"I was able to immediately apply strategies and I have started researching Working Memory. I have one student with what presents as working memory issues and it's been really, really helpful to me to first, put a name to it, and second, I have been able to educate myself on it so I do not just think she's 'lazy' or whatever, and then I can implement small changes to see if they make a difference for her."

"I ask myself often, 'Why is this student behaving this way?' and 'What can I do to reach them?' It is not that I didn't do this before this class, I just have found many of the examples, tools, and discussions have empowered me to step out and try some more of the strategies with a more clear direction."

Recommendations

Improve the usability of the discussion forums. When asked to provide recommendations for improving the unit or course, participants frequently expressed frustration with the design and layout of the discussion forums, as well as the mechanisms for navigation. Participants reported feeling "overwhelmed" by the sheer volume of postings, and "confused" in navigating the forums. Specifically, participants noted difficulties in getting back to particular conversations and locating replies to posts. They also frequently noted difficulties in locating other educators in similar professional roles. Participants recommended having a notification system that would "automatically alert you when someone replied to your post," indicating that "this way you could continue the conversation in a timely manner." Additionally, participants recommended breaking participants into smaller groups.

Promote deeper engagement between educators. In addition to the proposal that participants be placed in smaller groups, participants recommended that consideration be given to grouping people by discipline area and/or grade level as a way of increasing interaction and engagement. Specifically, participants noted that groupings by grade level would be more beneficial than groupings by birthdate. For example, one participant suggested that, "it would be better if all of the discussions were broken into school level; I like discussing topics with people that have students at a similar age and level." Several participants noted that requiring the use of social media, specifically Twitter, was a barrier to engagement with other educators. In some cases participants indicated that Twitter and other forms of social media were blocked in their school or district and they were not always able to participate in the evening; others indicated that they did not find communication via social media to be enjoyable or helpful. In some cases, participants noted a preference for face-to-face communication. Along those lines, several participants recommended future participants form local face-to-face groups to promote deeper engagement with course content and greater connection between educators.

Include differentiated resources for more specific contexts. Participants desired resources that were more specific to their grade level and subject area, or more geared towards their professional role. Several participants reported the need for additional resources that relate to higher education; others indicated wanting more resources for elementary students. While teachers valued the strategies provided through the Learning Differences MOOC-Ed, they recommended including additional strategies geared towards different levels. Several teachers also suggested additional differentiation of strateies by content area and a few respondents indicated wanting resources for "gifted" students. In addition to recommending that resources be differentiated by grade level and context, participants also recommended including more resources that gave insight into the parents' perspective.

Include more models and concrete examples of effective practice. Participants called for more practical examples of how principles or concepts presented in the MOOC-Ed might be applied in classrooms or educational settings. In particular, several teachers recommended including more videos of current classroom teachers demonstrating the strategies or concepts introduced. In addition to more videos from the classroom, participants also suggested providing additional "lists" of strategies. For example, one teacher noted that more "linked 'lists' of strateies" would enable her to meet the needs of the diverse learners in her classroom.

Illustrative Quotes

Forum Design

"I found the discussions with fellow colleagues to be insightful and helpful. However, I had a little difficulty navigating these areas (didn't find them to be as user-friendly) and I wish there were notifications if someone replied/commented on your section/post."

"I would prefer to see the participants broken into smaller groups and to see the posts not broken down into so many parts. I also found it hard to navigate between posts and back and forth between sub-posts within a unit and several units."

Deeper Engagement

"I didn't get the interaction with other participants that I would in a face-to-face setting. This is something that I missed, because I know that when I verbally talk about ideas with other teachers, I am more likely to implement them. So I would recommend doing this course with others in your school and actually setting up meeting times weekly to have discussions about the material."

Differentiated Resources

"I felt as though many of the articles and strategies were geared towards older learners. I work with 3-6 year old students and had a harder time relating some of the higher level thinking concepts to little minds. I especially appreciated the units that broke down the additional resources by age. I would have appreciated hearing a parent speak about their thoughts on how the topic impacted their child or an early childhood teacher and how she/he modified her classroom for all the learning differences at such a young age."

Models of Practice

"I think less time could be spent on defining learning differences (because in my experience this is like 101 in college). I would rather hear more success stories, struggles, and testimonies from real teachers about what works and what doesn't – best practices that can really be applied, concretely and specifically."