

Effectiveness of Teacher Preparation for the Online Learning Environment

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Introduction

Currently, online learning reaches millions of K-12 learners and its annual growth has been exponential over the past number of years. This growth has and will likely continue to lead to dramatic changes in the educational landscape. While online learning appears to hold great promise, a paucity of research addresses the pedagogical implications for students with disabilities (SWDs). Researchers urgently need to conduct investigations that describe what is happening in the field and demonstrate how online learning should be designed and delivered to impact these students' educational outcomes. The Center on Online Learning and Students with Disabilities (COLSD) has been conducting research in this area.

COLSD, a cooperative agreement among the University of Kansas, the Center for Applied Special Technologies (CAST), and the National Association of State Directors of Special Education (NASDSE), is focused on four main goals:

1. To identify and verify trends and issues related to the participation of SWDs in K-12 online learning in a range of forms and contexts such as fully online schools, blended or hybrid instruction consisting of traditional and online instruction, and online courses;
2. To identify and describe major potential positive outcomes and negative consequences of participation in online learning for SWDs;
3. To identify and develop promising approaches for increasing the accessibility and potential effectiveness of online learning for SWDs; and
4. To test the feasibility, usability, and potential effectiveness of one or more of these approaches.

To meet the first two goals, the Center has conducted a number of activities. Exploratory research activities include case studies of two fully online schools; national surveys of purposeful samples of parents, students, teachers, and district and state administrators; interviews with members of individualized education program (IEP) teams; and a review of one state's student participation, retention, and completion data. Additionally, to describe the landscape of online learning for students with disabilities, the Center is conducting a series of forums with different stakeholder groups. The first forum was held with state department of education staff to provide an in-depth view from the state perspective. Other forums under

consideration include forums with district superintendents, online learning vendors, and other stakeholders.

Participants and forum topics

In the summer of 2014, COLSD staff began planning for the series of forums to shed light on the state of online learning and SWDs from the practitioners' perspective. The first forum was held with state department of education staff in a face-to-face gathering November 17th and 18th, 2014. Participants were staff members from six state departments of education and one local district administrator. A list of participants is included as an appendix to this report. The states represented at this forum were Arizona, Florida, Georgia, Massachusetts, Ohio, and Virginia. These states were selected based on three factors: (1) Each state has a relatively detailed state policy on online learning. (2) Each state has state-level activity in special education and online learning. (3) Each state is geographically diverse. While staff from other states had asked to attend the forum, the forum process and resource constraints required that a limited number of individuals participate in order to gather in-depth information. Although the experiences and information from the participating states do not represent the nation as a whole, they do provide an informed sample. Other than Massachusetts and Florida, each state's director of special education attended. Massachusetts and Florida's representatives were educational specialists with knowledge in both special education and virtual education.

COLSD staff reviewed previous literature reviews and other research activities (e.g., case studies, surveys, and interviews) to determine the topics for this first forum. Staff gave suggestions for collapsing some topics and extrapolating concepts from others. The final eight topics covered at the forum included the following:

- Enrollment, persistence, progress, and achievement;
- Parents' preparation and involvement in their child's online experience, including promising practices to support parents' roles;
- IDEA principles in the online environment (e.g., FAPE, least restrictive environment, parental notification, due process protections);
- Access to student data, including privacy concerns, sharing, integration, and instructional usage among the parties involved in online instruction (e.g., instructional setting, instructor, administrator, provider, and vendor);
- Teacher preparation -- both preservice and inservice -- for the online learning environment;
- Integration of optimal evidence-based instructional practices; availability of skill/strategy instruction in online environments;
- Utilization of the online environment's unique properties and affordances (i.e., those features that would not be possible or practical in the offline environment) in the areas of collaboration, personalization of instruction, and multiple means of demonstrating skill mastery; and
- Differential access to online learning across the state (e.g., computer or tablet access, connection speed, district restrictions to material access and assistive technologies).

Participants received a packet of materials prior to the meeting, including the agenda (see Appendix B), a list of the topics and questions to be considered, a draft of a Center

publication entitled, “The Landscape of Online Learning,” and the publication “Using Technology to Support At-Risk Students’ Learning” by Darling-Hammond, Zieleski, and Goldman. This latter publication can be found at <https://edpolicy.stanford.edu/sites/default/files/scope-pub-using-technology-report.pdf>. The forum began with introductions and a comprehensive discussion of the importance of online learning and students with disabilities from each state staff member’s perspective. Next, each state representative responded to a set of questions about the selected eight topics. In a round-robin fashion so each participant had an opportunity to describe his/her state’s need, status, importance, and other perspectives pertaining to the topic.

For each of the eight topics, participants responded to six questions:

- How is the topic addressed in your state?
- How important is this topic?
- What direction is your state moving on this topic?
- What are the top challenges around this topic in your state?
- What is going well regarding this topic?
- What research question could have significant impact on this area?

As a closing exercise, participants described their top leadership challenges in regard to online learning for students with disabilities.

Effectiveness of Teacher Preparation for the Online Environment

This installment, the fifth in the series of SEA forum proceeding papers, presents participants’ responses to the set of six questions on the topic of effectiveness of teacher preparation for the online environment. This topic was identified from COLSD’s research as well as other published and anecdotal information. The Center’s initial activities found that both general and special education teachers receiving little or no preparation or guidance in how to provide effective instruction through online environments (Carter & Rice, 2015; Rice & Mellard, 2015). This manuscript synthesizes issues that participants reported in their states and the directions they are moving to improve teacher preparation for the online learning environments.

How is this topic addressed in your organization?

When asked how the effectiveness of teacher preparation in the online learning environment is addressed in their states, the answers were similar among participants. Many participants voiced several difficulties in providing the necessary professional development through preservice and inservice opportunities for online teaching. A common approach is that educational technology proficiencies have been added to current teacher preparation and recertification requirements. The bigger issue, however, was the limited availability of training specific to fully online and blended instructional formats. Participants’ comments suggest that most SEAs recognize that preparing educators to teach in an online or blended environment is necessary, but their limited resources and lack of content and skill specificity have stifled their

ability to address the issue to the desired extent. The sense is that the SEAs have limited resources and broadening their work in teacher preparation would require further resources. At the same time, the participants indicated their sense that the specificity of content or skills was limited and thus they were unclear about what should be delivered to properly prepare instructional staff. We observe that significant debate continues about how to prepare teachers and what “highly qualified” means even for the traditional setting. In an online environment, teachers appear to need additional, different skills and those competencies have not been well delineated or tested across content areas, grades, and disability categories.

Despite this challenge, some educational technology proficiencies have been added to current teacher preparation programs and recertification requirements, in addition to published informational resources. For example, one participant indicated her state produced guidelines available to current teachers aimed at enhancing their online teaching skills. Another participant shared that at least one institution of higher education is developing lessons on universal design specific to online learning environments including blended environments. However, the participants indicated much ground is still to be gained to providing adequate professional development opportunities for teachers interested in teaching in blended and online learning environments.

How important is this topic from your perspective?

Teacher preparation was a high priority for nearly all participants, even though they agreed that addressing it without support from institutions of higher education will be very difficult. As an example, professional development programming can address educational technology, but no online education certification requirements or even elective courses are available. Early childhood teacher preparation education programs were pointed out as one particular area in which the demand for teachers is significant and even increasing, but certification requirements for online instruction are lacking. Nearly all participants shared the sentiment that they are only a part of the equation for getting ahead of the curve for preparing educators to use educational technology.

What direction do you see your state going on this topic?

One commonality among multiple states is a desire to require professional development opportunities and proficiencies specific to teaching online. Multiple participants iterated that they believed professional development for blended and online instruction was one of the next issues they thought their state would address for students with disabilities. Many states will also soon begin adapting their professional development offerings to include educational technology, including those proficiencies pertinent to online and blended instructional formats. Those states already offering some professional development in online education, foresee their states offering even more professional development opportunities.

Despite these commonalities, forum participants voiced a variety of responses again dependent on their state’s degree of online-learning integration. Participants from states that have implemented a great deal of both fully online and blended environments reported that they expect to see a great deal of change in teacher preparation for online learning. One example from Florida is the development of an online teacher preparation course conducted in sign language for students with hearing impairments. A second example from Arizona is the

hiring of instructional coaches to observe teachers and provide feedback for their online teaching. Virginia hopes to move from only offering a certification for strictly online teaching to offering courses toward certification for blended and other technology-incorporated educational environments. Meanwhile Georgia is working with the University of Florida's Collaboration for Effective Educator Development, Accountability and Reform (CEEDAR) center to develop a blueprint for teacher preparation for the online environment.

What are the various stakeholder concerns?

Most participants shared similar stakeholder concerns. These shared concerns revolved around the lack of certification or licensure required for online teaching and the lack of online teaching preparation and coursework required at the university level. Aside from coursework, a means does not exist for students in preservice programs to experience teaching online. Regrettably, student teaching positions have not been available to provide them with such online experience. The explosion of online education has left schools and teacher preparation programs clamoring to catch up on the latest educational technology and strategies for educating their teachers about how to be effective in an online classroom.

Virginia has made a move to create courses specific to online teacher preparation. Currently, four courses are available that prepare educators for a license in online teaching but as is true to the introduction of most new programming, the creation of the courses has left Virginia with a plethora of stakeholder concerns specific to its provision of this professional development. One major concern is whether these four courses should be offered for standalone licensure as an online educator or only be available in addition to one's original teaching license or certification. Other concerns included who would be approved to teach these courses at the university level? Does a special education online certification need to be available, and what would that certification look like? Is four courses too quick or too short to ensure quality and understanding? How can educators be taught to work with students regarded as hardest to serve? As new programming is implemented, stakeholders will be asking questions like these.

What's going well?

No two answers were alike when participants were asked about their state's successes in teacher preparation for an online environment. They noted that the available educational technologies continue to evolve and have an increasing role in classroom instruction, which in turn places a greater demand on teachers for incorporating more online instruction. Some participants felt positive about the conversations occurring within different agency levels and across organizations (e.g., SEAs and postsecondary teacher preparation programs). Another expressed her belief that teacher preservice offerings are improving, mentioning blended classes on online teaching. Another success was that the first two cohorts of students from two Virginia universities had graduated with training in online teaching. Another participant cited that a majority of their virtual teachers have been able to work together onsite. Working together was proving to be a positive force for the LEA they serve as professional development and collaboration happens organically.

What research questions could have a significant impact?

Very few research questions were identified regarding teacher preparation for online learning environments. One possible explanation for this shortage is because the challenges in this area are due to a lack of resources and not necessarily a lack of data or understanding. Forum participants had fairly congruent ideas of what was needed by existing and future teachers in terms of online teaching professional development. They were, however, less sure of how to go about getting those changes to occur at the higher education level, and which educators at that level would be appropriate to teach the necessary courses. One participant posed the question of whether or not the current teaching practices and methodologies that are tried and true for special education are the same in an online environment. Appropriate research could test this efficacy question. Two other questions that were posed included: (a) what skills do teachers who are effective at teaching online have, and (b) could the National Council for Accreditation of Teacher Education (NCATE) conduct a study on teacher preparation for technologically enhanced teaching and the efficacy of such preparation?

Implications

All forum participants iterated the importance of teacher preparation for online learning. Although, various degrees of progress are noted across states in regards to implementing professional development for current and future educators in fully online and blended learning environments, all representatives indicated their states want to implement more professional development for teachers. Participants also noted that regardless of the implementation level of online teaching in their state, they all had various stakeholder concerns. These concerns range from a lack of certification and licensure requirements to teach online courses to who would be appropriate to teach future educators about fully online and blended learning environments and how to assess the efficacy of such professional development. Despite such questions, out of the current and growing necessity to support online instruction, SEAS are moving ahead. They are designing and offering courses to prepare educators to teach in blended and online environments and are working to expand their preservice and inservice opportunities.

From this review of our participants' discussions, some of the questions about this topic included:

1. What knowledge, skills, and attributes (KSAs) should an instructor have to be considered qualified to teach preservice teachers about teaching in an online environment?
2. In particular, what KSAs should this person have to educate preservice teachers on teaching students with disabilities in an online environment?
3. Are the efficacious instructional practices for students with disabilities as effective in the online environment?
4. How does one prepare and support new teachers in an online environment?

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Appendix A
Forum Participants

OSEP AND COLSD FORUM

Practices and Challenges in On-line Instruction for Students with Disabilities

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Appendix B
Forum Agenda

OSEP and COLSD Forum
**Practices and Challenges in On-line Instruction for
Students with Disabilities**

NOVEMBER 18-19, 2014

AGENDA

Tuesday, November 18, 2014

8:30 – 8:45	Welcome	<i>OSEP staff and Bill East</i>
8:45 – 9:10	Introductions:	Your SEA experiences with online instruction (Questions suggested in the second cover letter)
9:10 – 9:15	Overview	<i>Explanation of how we hope this discussion proceeds</i>
9:15 – 10:30	Discussion	<i>Topic #1:</i> Enrollment, persistence, progress and achievement; Disaggregated by disability category
10:30 – 10:45	Break	Check in with the office; Refresh your brain
10:45 – 11:45	Discussion	<i>Topic #2:</i> Parent preparation and involvement in their child’s online experience; Promising practices to support parents’ roles
12:00 – 1:00	Lunch	Task: Evaluation and planning (Handout)
1:00 – 2:15	Discussion	<i>Topic #3:</i> IDEA principles in the online environment (e.g., FAPE, least restrictive environment, parental notification, due process protections)
2:15 – 2:30	Break	
2:30 – 3:30	Discussion	<i>Topic #4:</i> Effective and efficient student response data access, sharing, integration, and instructional usage among the parties involved in online instruction (e.g., instructional setting,

		instructor, administrator, provider, and vendor) and addressing privacy concerns
3:30 – 4:30	Discussion	<i>Topic #5: Effectiveness of teacher preparation in the online learning environment; Promising or negative practices that facilitate (negate) professional development</i>
4:30 – 4:45		<i>Wrap-up, suggestions for improving our process and preview for day 2</i>

Wednesday, November 19, 2014

8:15 to 8:30	Review	<i>Review of yesterday and preview of the today's activities</i>
8:30 – 9:15	Discussion	<i>Topic #6: Integration of optimal evidence-based instructional practices; availability of skill/strategy instruction in online environments</i>
9:15 – 9:30	Break	
9:30 – 10:30	Discussion	<i>Topic #7: Utilization of the online environment's unique properties and affordances especially those features that would not be possible or practical in the offline environment: collaboration, personalizing instruction, multiple means of demonstrating skill mastery</i>
10:30 – 11:45	Discussion	<i>Topic #8: Differential access to online learning within and across your districts (e.g., computer or tablet access, connection speed, district restrictions to material access & assistive technologies)</i>
11:45 – 1:00	Lunch	Leadership challenges: What are 2-3 questions that you need answered about online learning and students with disabilities to help you provide state leadership?

1:00 – 2:00	Discussion	Your views on: (1) The Center’s future activities, (2) Value of this forum and (3) Stakeholders for future forums
2:00 – 2:15	Wrap Up	<i>Reimbursement issues and closing comments; Thank you and safe travels</i>