Practices and Challenges in Online Instruction for Students with Disabilities:
School Superintendent Forum Proceedings Series (Report No. 8)

Optimal Instructional Practices in Online Environments

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Online learning currently reaches millions of K-12 learners and its annual growth has been exponential. The industry has projected that this growth will likely continue and has the potential to lead to dramatic changes in the educational landscape. While online learning appears to hold great promise, civil rights legislation, related policies, and their application in online learning as they pertain to students with disabilities has received much less research attention than is necessary for policy planning and decision making. Researchers urgently need to develop shared understandings about how online learning affects students with disabilities as they participate in online learning environments, move through their coursework, and transition back to the brick-and-mortar classrooms (or out of school settings in general). Research that claims to focus on students with disabilities in online learning environments should be designed and carried out with particular attention to educational and social outcomes. The Center on Online Learning and Students with Disabilities (COLSD) conducts research in alignment with these goals.

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 students with disabilities in K-12 online learning in a range of forms and contexts, such as full or part time, fully online schools; blended or hybrid instruction consisting of both traditional and online instruction, and single online courses;
2. To identify and describe major potential positive outcomes and barriers to participation in online learning for students with disabilities;
3. To identify and develop promising approaches for increasing the accessibility and positive learning outcomes of online learning for students with disabilities; and
4. To test the feasibility, usability, and potential effectiveness of as many of these approaches as would be practical.

To meet the first two goals, COLSD has conducted a number of activities designed to develop understandings about the general status of students with disabilities in online learning. Exploratory research activities included case studies of two fully online schools; several national surveys of purposefully sampled parents, students, teachers, and district and state

administrators; interviews with members of individualized education program (IEP) teams working with students with disabilities who were completing online coursework; and a systematic review of one state's student participation, retention, and completion data. COLSD is making an additional effort to describe the landscape of online learning for students with disabilities through a series of forums with different stakeholder groups. The first forum was held with state directors of special education (or a designee) to obtain an in-depth view of the issues and concerns with students with disabilities in online learning from the state policy perspective. The second forum was conducted with virtual school district superintendents and other top-level district administrators. These administrators' responses are the topic of this paper.

Participants and forum topics

In the summer of 2014, COLSD staff began planning a series of forums to shed light on the state of online learning and students with disabilities from the perspective of various practitioners and stakeholders. This second forum was held with virtual school superintendents and other virtual school administrators in a face-to-face gathering March 31 and April 1, 2015. Due to their configuration as online schools, some of these institutions enroll students across the country. These administrators were selected for participation on the basis of three factors: (1) Status as a top-level official of a large blended learning program. (2) Status as a supervisor in states that have high levels of participation in online learning, even though school enrollments vary in size. (3) Responsibility for schools that represented demographic diversity. Although the experiences and information from the participants do not represent all administrators of virtual schools in this country, they do provide an informed sample.

The five forum participants represented two public school districts (Mooresville, NC and Detroit, MI), two national charter schools (Carpe Diem Schools and Rocketship Education Network) and one state level program (North Carolina Virtual Public School). The two charter school administrators represented programs in multiple states: Arizona, California, District of Columbia, Indiana, Ohio, Tennessee, Texas, and Wisconsin. Collectively their schools enrolled students from kindergarten through 12th grade and included eight to 40 percent of the enrollees as students with disabilities. A list of participants is also included in this report (Appendix A).

At the time of her participation, the first administrator was the special education director for a school district of 6,100 in North Carolina. Her district had been involved in online/blended instruction since 2008. In the fall of 2015, that district was expected to be a full 1-to-1 with laptops or tablets in every grade (K-12). Roughly 12 percent of the student body in her district had been identified as having at least one disability. Currently she is a special education director for a different school district in North Carolina with 20,000 students that is also 1-to-1 with laptops and tablets in grades 3-12.

The second administrator is the vice president of achievement for the National Education Board of National Charter Schools. Currently, he is in charge of achievement for

6,000 students attending grades K-5 in California, Wisconsin, and Tennessee. His schools have used various blended models since they opened in 2007. Approximately 11 percent of students in his network are identified as having at least one disability.

The third administrator was included because of her recent history of employment with the Education Achievement Authority in Detroit, Michigan, which is a statewide reform charter district. As of 2015, six high schools, and one K-8 school were in her district. She is currently working with Operation Breakthrough in Kansas City, Missouri, one of the largest early learning centers in the region. Percentages of students with disabilities in the schools she works with range from 8 to 40 percent.

The fourth participant is an administrator at the North Carolina Virtual Public School, the nation's second-largest fully online supplemental program. Her program has 35,000 students, approximately 10 percent of which are identified with at least one disability. In addition, her program operates a unique occupational course of study program aimed at transitioning students from school to work and post-high school training, especially directed toward meeting the needs of students with disabilities. This program has 7,400 students and 14 percent are students with disabilities.

The fifth administrator represented Carpe Diem Schools—a multistate charter school network for grades 6 through 12. Schools in his network employ various learning models, but most are some type of blended learning. Percentages of students with disabilities in his schools range from 12 to 25 percent of the approximately 2,500 total students in the network.

COLSD staff reviewed previous literature, revisited findings from previous research activities (e.g., case studies, surveys, and interviews), and considered responses from the first forum of state directors of special education to determine the topics for this second forum. As in the previous forum, the population under consideration consisted of students with disabilities. Therefore, the responses reported are always in the context of meeting the needs of students with disabilities in online learning environments. The 10 topics covered at this forum included:

1. Enrollment, persistence, progress, and achievement
2. Parents' preparation and involvement in their child's online experience and IDEA notifications
3. IDEA principles in the online environment (e.g., free appropriate public education, least restrictive environment, due process protections)
4. IDEA principles in the online environment (e.g., eligibility assessment, IEP development)
5. Access and coordination of related services for students with disabilities
6. Effective and efficient access, sharing, integration, and instructional usage of student response data among the parties involved in online instruction (e.g., instructor, administrator, provider, and vendor), along with privacy issues
7. Effectiveness of teacher preparation in the online learning environment, and promising (or negative) practices that facilitate (or negate) professional development

8. Instructional practices: Integration of optimal evidence-based practices; availability of skill/strategy instruction in online environments; use of the unique properties afforded in online environments
9. Differential access to online learning within and across your schools (e.g., computer or tablet access, connection speed, district restrictions on material access and assistive technologies)
10. Local supervision for online learning in general education and, in particular, for supervision in special education

Participants received a packet of materials prior to the meeting, including the agenda (see Appendix B), and a list of the topics and questions to be considered. The forum began with introductions and a comprehensive discussion of the importance of online learning for students with disabilities from each participant's perspective. Next, each administrator responded to a set of questions about the selected ten topics. The participants determined the order in which they wanted to use to describe their organization's current status, needs, values, and other perspectives pertaining to the topic. The format of the meeting was framed as a conversation in which participants were encouraged to elaborate, explain, and engage in uptake with one another's comments. A representative from COLSD moderated the talk to provide all participants with comparable opportunities to share insights about each topic. For each of the 10 topics, participants responded to five questions:

1. How is your organization currently addressing this topic?
2. Of the (10) topics in our discussion list, how important is this topic?
3. What is working well for you on this topic?
4. What are the top challenges you face and the direction you see your organization taking on this topic?
5. What research question could have a significant impact on your policy or practice?

Integration of Optimal Evidence-Based Instructional Practices, Availability of Skill/Strategy Instruction in Online Environments

This topical paper is the eighth in a series of forum proceeding papers and includes participant responses to a set of five questions revolving around two components of instruction: the integration of optimal evidence-based instructional practices and availability of skill/strategy instruction in online environments. The integration of evidence-based instructional practices is linked to the research findings that specific instructional practices can have a differential positive effect on students' learning and achievement (e.g., Hattie, 2008; Marzano, Pickering, & Pollock, 2001) and some practices are particularly helpful for students with disabilities (Swanson, 1999; Swanson & Sachse-Lee, 2000). The second component is linked to the research that students with disabilities benefit from specific instruction in cognitive and learning strategies to support their ability to become more independent, self-regulated learners. However, additional work from the Center has found online educators routinely cite two barriers to integrating promising practices: (1) difficulties initiating and maintaining collaborative relationships with traditional brick and mortar schools and other

entities, and (2) difficulty fostering the parent involvement strategies necessary to foster appropriate coaching of students in their online work (Rice, & Carter, 2015; Carter & Rice, In press). Both challenges potentially preclude adoption of evidence-based instructional practices from traditional learning environments, and limit what might be helpful comparisons and contrasts across face-to-face classrooms and the online environments (Deshler, Smith, Greer, & Rice, 2014). That is, students experience instructional tasks so differently between the two environments that the tasks' efficacy should not be assumed.

How is this topic addressed in your organization?

The school and district participants presented several ways in which they are addressing the inclusion of evidence based practices. The three highlighted avenues were the use of programming based on universal design for learning (UDL), the creation of criteria with which to select online programming and applications, and curriculum for professional development. The first line of discussion led to agreement among participants that the use of UDL in curriculum, programming, and tools for learning is currently the best measuring stick for which technologies and practices are most promising. Multiple participants stated that if UDL isn't the premise of the curriculum or technology they are considering, they won't look any further into a product of potential interest.

One superintendent shared the criteria his charter school has begun using after some trial-and-error experiences with new technology. These criteria are used to evaluate online programming and applications:

(a) What is the online program doing better than a teacher would do, and how well does it do those things?
(b) How does the program adapt and scaffold based on how a child is doing?
(c) How well does it explain/conceptualize concepts for students in the actual lessons?
(d) Does it allow teachers the ability to assign specific tasks or lessons?
(e) What data are available, how quickly are they available, and how difficult is it to cull and present that data?
(f) Will the platform communicate with the platform(s) the school or district is already using?

In addition, another participant shared their school's approach to evaluating both general and special education teachers' and co-teachers' instructional practices. The four teaching practices are:

(1) Targeted feedback (e.g., "this work product is good because …"),
(2) Regular communication with students synchronously live once per week or more (required),
(3) Daily instruction from the teacher via the learning management system, and
(4) Differentiation among learners and leveraging technology, meaning using programming and curriculum that allows students to review and repeat a lesson/skill in a variety of ways.

In addition to using some of the best-practice research available on student learning, this virtual school looked at their own data to identify how students learned most effectively and then how those traits could be applied to the online environment, including the importance of the student-teacher relationship, the significance of individualized feedback, personalization of instruction, and the presence of ongoing instructional and supportive communication.

How important is this topic from your perspective?

Collectively, participants expressed two important themes in addressing the topic of evidence-based instructional practices in the online environment: the availability of research evidence on best practices in the online environment and the online programming and tools available to assist in those practices. As opposed to a similar discussion with state education agency representatives, which centered on the need for learning skills and strategy instruction in the online environment, this forum's participants were much more focused on the tools and technologies available to assist educators in incorporating evidence-based instruction in their virtual classrooms. In addition, all of the participants agreed on the critical importance for researchers in education to continue working toward establishing best practices in online learning.

What's working well for you on this topic?

Participants provided a plethora of positive responses, highlighting their successes with incorporating evidence based practices and tools in their online instructional practices. First, participants noted that many of them have access to a multitude of programs, tools, and assessments. Some programs are finding great success with flex models of online learning, where students can choose to access content through digital assets, through a teacher, or they can research the topic on their own. In such models, students often do applied projects and real world assessments, according to most of the participants. In addition, one administrator stated that her district is currently working on differentiation strategies that allow students to review and repeat learning specific concepts in a variety of ways.

Second, as one approach to integrating evidence-based practices, many participants shared ways in which they are using growth and outcome data to inform IEP and instructional plans for specific students. Teachers are looking at the evidence of what is working with specific students to tailor students' learning and increase their interest and success. Additionally, both special education and general education teachers are taking an active role in incorporating new tools and techniques they view as promising. Other participants reported that in some cases they are employing a wait-and-see approach and plan to rely on future research and online learning outcome data to lead them to best practices for online instruction.

What's the top challenge you face and the direction you see your organization taking on this topic?

This discussion was comprised of two distinct lines of thought regarding the integration of evidence-based practices. The first issue revolved around the difficulty in keeping up with the latest educational technology and being able to best match those tools with student needs. The basic view is that time and effort is insufficient for teachers and/or administrators to become proficient in the latest technology tools available, which deters their ability to use them with students in the most effective manner. Some of the forum participants said that they have found great success in encouraging teachers to learn and try newly available technology in their school(s), but others said that without a clear vision disseminated to teachers, the chosen programs and/or applications may miss crucial pieces needed to align with the school's goals.

The second issue focused on the practicality of determining evidence-based or "best" practices in the world of virtual instruction at this time because their use is still fairly novel. More specifically, one participant shared, "Because online learning is so new, it's hard to believe there's enough evidence to be able to call anything a 'best practice,' " suggesting instead that the term "promising practices" is more accurate. The consensus among participants was that the use of Universal Design for Learning (UDL) is currently the best instructional framework and attending to UDL principles offers guidance as to which technologies, tools, and practices are most promising. The most salient question that arose around this issue was the degree to which the technology available for online learning from online curriculum programs to applications used as tools is based on research evidence with specific or general student populations.

Administrators at the forum also shared several other challenges their school or district had experienced in terms of evaluating the evidence for and usefulness of certain tools and online programming including not having the time or staff to learn everything they could about available programing and teaching tools. One participant shared that the rapid release of new technologies and online programming lead "teachers to figure them out, often times, on their own," and "most teachers don't have the time and energy to try innovative things." Along the same vein, another administrator stated that, "We know the role we want tools to play but we don't always know everything we want to know about the tools themselves and whether they will contribute to school goals."

Participants also spoke about several changes either in the works or on the horizon for improving the inclusion of evidence-based practices in online instruction. One participant suggested the importance to be willing to test more specific hypotheses instead of only big ideas. Instead of taking larger risks that would put a school or district on the leading edge in using the latest techniques or technologies, testing single variables over a longer period of time may yield information that is more helpful for decision-making about school operations or student learning. Another strategy shared was assessing online programming and instructional methods based on the outcomes that have been promised and shown, adding that their organization asks questions like, What outcome are we looking for to meet student needs? and Does the program really produce that outcome? They also ask questions about the student

experience of such tools and programming, and whether or not real-time positive and corrective feedback is available for the student.

What research questions could have a significant impact?

Several questions were raised during the discussion of this issue. Forum participants asked how to best support teachers' use of evidence-based instructional practices in online environments. In addition, how do successful teachers in these settings identify, define, and strategize for problem solving? Participants were also curious about what type of environments and practices among educators and administrators encourages individuals to be innovative and advocate for the use of the successful practices they have implemented, noting that this approach is how best practices begin. Much like SEA forum participants, the superintendent forum participants were also interested in which technologies and tools are evidence based or promising in terms of building skills for the learning of content knowledge. In addition, participants shared questions about what practices, technologies, and tools in the online environment qualified as "promising," rather than evidence-based, as existing research is insufficient to restrict educators' choices or even ask that they use evidence-based practices in the online environment.

Implications

Participants viewed the integration of evidence-based instruction and learning tools as an important topic, although they noted the lack of evidence for best practices in the online environment. Because of the novelty of virtual learning, participants suggested using the term "promising practices" until more research evidence is available. This discussion revealed common challenges across organizations regarding the difficulty of assessing the evidence base and appropriateness of new online learning programming, applications, and other technologies, citing that at times new products are misaligned with the schools goals or do not address all of the schools' needs. These are interesting findings since the administrators placed most of their efforts into technology helping them implement best practices, rather than enlisting other individuals (such as parents) and entities (such as traditional schools) in optimizing instruction. However, online teachers emerged as prominent figures in developing and implementing instruction as a collaborator with technology. Further, the work of evaluating new products takes time and energy that these administrators thought needed careful planning to carry out.

Noticeable in this topic was the few references to strategy instruction. In other topics the participants did discuss the importance of learners learning how to learn and how to use the available technologies. Further queries with a similar audience about this component of instruction seem warranted. Perhaps the strategy instruction is so integrated into the available instructional courses and tools that the connection is seamless. On the other hand, perhaps the focus is so much on content instruction (e.g., declarative and skill knowledge) that learning strategies and cognitive strategies are not emphasized.

Suggestions made by participants included the use of UDL as the current metric to best measure the appropriateness of new online programming and tools, in addition to using student data to assess what practices are promising with individual students.

From the discussion several questions emerged:

1. To what degree is the available technology for online learning based on research evidence for their efficacy with specific or general populations?
2. What types of environments and practices among educators and administrators encourage individuals to be innovative and advocate for the use of the successful practices they have implemented?
3. How do successful teachers in fully online and blended settings identify, define, and strategize for problem solving?
4. How is strategy instruction integrated into the students' curricular experiences and their proficiency in these strategies evaluated?

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Appendix A

Forum Participants

OSEP AND COLSD FORUM

Practices and Challenges in Online Instruction for Students with Disabilities

Sandy Albert
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Rowan Salisbury Schools

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Appendix B

Forum Agenda

OSEP and COLSD Forum
Practices and Challenges in Online Instruction for Students with Disabilities

MARCH 31 – APRIL 1, 2015

AGENDA

NASDSE Conference Room
225 Reinekers Lane, Suite 420
Alexandria, VA 22314
703-519-3576

Tuesday, March 31, 2015

12:00 - 12:45	Working Lunch • Welcome: *OSEP staff and Bill East* • Participant introductions: *Your district experiences with online instruction* • Overview: *Explanation of how we hope this discussion proceeds*
12:45 - 1:45	Discussion *Topic #1:* Enrollment, persistence, progress and achievement for students with disabilities
1:45 - 2:00	Break
2:00 – 2:45	Discussion *Topic #2:* Parent preparation and involvement in their child's online experience and IDEA notifications
2:45 - 3:30	Discussion *Topic #3:* IDEA principles in the online environment (e.g., free appropriate public education, least restrictive environment, due process protections)
3:30 - 4:15	Discussion *Topic #4:* IDEA principles in the online environment (e.g., eligibility assessment, IEP development)
4:15 - 4:30	Break
4:30 - 5:15	Discussion *Topic #5:* Access and coordination of related services for students with disabilities
5:15 - 5:30	*Wrap-up, suggestions for improving our process and preview for day two. Dinner plans?*

Wednesday, April 1, 2015

8:15 - 8:30	Review *Review of yesterday and today's preview*
8:30 - 9:15	Discussion *Topic #6:* Effective and efficient access, sharing, integration, and instructional usage of student response data among the parties involved in online instruction (e.g., instructors, administrator, provider, and vendor) and addressing privacy concerns
9:15-10:30	Discussion *Topic #7:* Effectiveness of teacher preparation in the online learning environment; and promising (or negative) practices that facilitate (or negate) professional development
11:15-11:30	Break
10:30-11:15	Discussion *Topic #8:* Instructional practices: Integration of optimal evidence-based practices; availability of skill/strategy instruction in online environments; use of the unique properties afforded in online environments
11:30 – 12:15	Discussion *Topic #9:* Differential access to online learning within and across your schools (e.g., computer or tablet access, connection speed, district restrictions to material access & assistive technologies)
12:15 – 1:00	Working Lunch – Discussion *Topic 10:* Local supervision for online learning in general education and in particular for supervision in special education
1:00 – 1:15	Discussion of your views on the Center's future activities
1:30 - 1:45	Wrap up: *Our next steps with this information: draft a summary; share the summary with you for accuracy and completeness; draft a report on the topics and share with you for edits regarding accuracy and completeness; and complete revisions and disseminate.* *Your closing comments* *Reimbursement issues and our closing comments* *Thank you and safe travels*