Practices and Challenges in Online Instruction for Students with Disabilities:
State Education Agency Forum Proceedings Series (Report No. 6)

Optimal Instructional Practices in Online Environments

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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. This first forum was held with state department of education staff to provide an in-depth view from the state perspective.

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, Zielezinski, 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.

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

This topical paper is the sixth in a series of forum proceeding papers and includes participant responses to a set of six questions revolving around the integration of optimal evidence-based instructional practices and availability of skill/strategy instruction in online environments. Two significant issues in this area include the lack of precedent and lack of available research regarding evidence-based instructional practices in online learning environments. The lack of precedent can be associated with the recent and rapid expansion of online learning offerings. For many, or even most, educators, instruction using online resources and applications is a new experience and a change in their traditional roles. For the second issue, research and evaluation activities have not kept pace with the expanding implementation of online learning, especially regarding the impact on students with disabilities (Keeler, Richter, Anderson-Inman, Horney, & Ditson, 2007). In addition, online educators cite two substantial barriers to integrating optimal evidence-based practices: a lack of collaboration between brick and mortar schools (when they continue to operate at the local district level) and a lack of parent ability/effort to coach students in their online work (Greer, Rice, & Carter, 2015). Both of these barriers have hindered online educators' ability to adapt the evidence-based instructional practices of traditional learning environments, and compare and contrast the type and degree of skill and strategy instruction across the two environments (Deshler, Smith, Greer, & Rice, 2014).

How is this topic addressed in your organization?

This discussion was comprised of two distinct issues regarding the integration of evidence based practices. The first issue is the sense that evidence based practices from traditional

instructional settings are not assumed to be effective in the online environment. The basic view is that the online environment is such a different instructional and learning experience from the typical classroom that generalization of efficacy or effectiveness should not be assumed. The most salient question that arose around this issue is whether or not empirically tested evidence-based practices previously used in traditional classrooms are as sound when transferred to the online environment. The shared perception is that the research is insufficient to support any virtual instructional practices as evidence-based.

The second issue focused on students' learning abilities or learning how to acquire content knowledge in the online environment. More specifically, the sense is that online instruction may include procedures or strategies to improve learning, but the real emphasis in online instruction is on delivering content. The participants used multiple terms to describe instruction intended to improve students' learning abilities (e.g., learning how to learn, learning to access the curricular content, executive functioning) and particular approaches for developing these abilities such as learning strategy instruction. We will describe this focus as developing learners' executive functioning.

Participant responses brought to light some very uniform concerns regarding the availability of instruction on learning strategies and executive functioning. Because the focus of most student assessments is on their content knowledge, no identical or consistent procedures exist for monitoring and addressing instructional practices aimed at teaching students how to access, monitor and evaluate the curricular content. In fact, multiple participants agreed that most fully online providers don't spend any time teaching strategies or approaches for improving executive functioning or assessing students' proficiencies with specific learning strategies. In online environments, as well as in the classroom, confusion remains about what can and should be taught as a strategy for learning, and what constitutes a modification for students with disabilities. Developing the learners' executive functioning and strategies to access learning is still viewed as the special education teacher's or instructional coach's role.

Participants also cited fidelity of implementation of evidence-based practices as a concern in both physical and online environments. In the online environment the concern is that the instructors implementing lessons are not always the ones creating the lesson plans, and as a consequence leaving more room for erroneous interpretation and lower implementation fidelity. Several participants said this concern indicates a need for increased professional development, coaching, and supervision. In both Georgia and Massachusetts, online databases are being created so teachers have access to resources applicable to specific student needs. In Georgia, this system links students' specific skill needs to available lesson plans, but is missing information on how to deliver the lesson plan. However, Massachusetts' system is essentially a library of best practices, effective lesson plans, and appropriate assessments.

How important is this topic from your perspective?

Collectively, participants expressed three important themes in addressing the topic of evidence-based instructional practices and the availability of strategy instruction in the online environment: the teaching of content, the teaching of executive functioning, and the trust needed among educators and the state and local education agencies in order to make the shift toward more learning strategy instruction. Integration of evidence-based instruction in the online

environment was viewed by several participants as the most important of all of the forum's topics. They noted integrating such instructional practices was not an issue discreet to special education, nor was the issue solely applicable to online or technology enhanced education. The first theme, the teaching of course content, was discussed in terms of how the implementation of evidence-based instructional practices applies to instruction across students' grade and ability levels, content areas, and settings. In terms of educators' evidence-based instructional practices, an important discussion centered on the pressure teachers feel to teach the content requirements and approved curriculum, which doesn't always include a sufficient degree of the second theme: teaching specific learning strategies or executive functioning skills. The concern presented was the pressure teachers feel to focus on teaching curricular content since instructional time is so limited. Their students' content knowledge is what's being assessed by local, state, and national assessments, and the students' performance is viewed as an evaluation of their teaching.

Finally, participants noted changes in assessment and teacher evaluation procedures are necessary in order to hold instructors accountable for teaching both content and students' learning abilities and skills, i.e., helping them become more strategic learners. They observed an increased emphasis on ensuring students are learning *what* they need to learn, but less emphasis on assuring students have access to such information and an understanding of *how* to acquire the information. As a result, some SEAs are beginning to address how teachers are delivering content, in order to help them challenge the deficit of instruction on executive functioning. This emphasis on executive functioning requires a shift in the way educators and administrators think about teaching and accountability, and all parties have to trust everyone involved on the importance of executive functioning skills to make this shift successfully.

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

Participants were not aware of their state's next move for improving online instruction, but one participant noted that the lack of instruction on learning strategies has begun to force a shift in the perspective and effort of the state education agency (SEA) (AZ). Another representative suggested teachers may be unsure of whether or not they have the freedom to diverge from state-approved curriculum in order to teach explicit strategies that improve students' executive functioning to access what's being taught (FL). One commonality among multiple states was the need for increasing the trust among educators, administrators and the SEAs. Participants suggested that strengthening the working relationships among educators, LEAs and SEAs would increase the trust among them and focus their efforts on the same goal: successful students. The shared view was that teaching students *how* to learn is in everyone's best interest not only for immediate outcome improvement, but also the student's long-term continued learning capacity as well.

What are the various stakeholder concerns or challenges faced?

Most of the participants expressed similar stakeholder concerns. These concerns revolved around the lack of clarity about the responsibility and accountability for teaching executive functioning strategies and who should be responsible for monitoring whether students are being

taught the necessary learning strategies to access course content. Participants agreed accountability for teaching executive functioning and content should be linked (GA, MA, OH). Related to this concern are the challenges associated with the push for inclusion of students with disabilities in general education. The push for academic inclusion has led many special education programs to duplicating the state standards with their students rather than helping the students learn how to best access the information that improves their understanding of what they are already being taught.

The implementation of specially designed instruction in special education was also named as a concern. This concern was expressed in such questions as how and when are students receiving specially designed instruction, and what strategies do they need to master in order to support continued learning. Much like the answers to other questions about evidence-based instructional practices, participants agreed these concerns apply across the board: in traditional and online educational settings and for both general and special education student populations.

Another concern nonspecific to online learning settings is that of general education teachers' accepting students with IEPs as *their* students (MA). Often, students with disabilities' learning outcomes are considered by general educators to be the responsibility of a school's special education department rather than as members of the larger general education body. In addition, many educators have not had professional development focused on teaching executive functioning skills to facilitate their students' access to content (AZ). Addressing this deficit in preservice and inservice professional development for a traditional environment was suggested as a first step in shifting the focus (OH). Transferring this knowledge into the online learning environment would be an important follow-up step to ensure all students' learning needs are met regardless of the students' disabilities, the curricular content, or the learning environment.

What's going well?

Because of the dearth of research exploring the compatibility between evidence-based instruction in traditional learning environments and in the online environment, this question was difficult for many participants to answer. The sense is that the translational research has not been completed and thus, instructional staffs have very limited information on which to base such decisions. However, some responses from SEA representatives highlighted several positive facets present in their states' online instructional practices. First, participants noted that special education teachers have historically done a good job of breaking down the barriers to teaching executive functioning strategies and continue this approach in the online environment. Second, as one approach to integrating evidence-based practices, Massachusetts has online programs that teach problem-solving skills specifically, which is an integral part of teaching students *how* to access content. Additionally, more and more districts are using their funds for purchasing hardware, such as tablets and software with primary school age learners. District staffs are teaching students how to access the content they need in kindergarten through second grade classrooms. Other respondents reported employing a wait-and-see approach and relying on research and online learning outcome data to lead them to best practices for online instruction, especially for the teaching of executive functioning strategies.

What research questions could have a significant impact?

Several questions were raised during the discussion of this issue. Forum participants asked how the special education field could move from spending large amounts of time academic tutoring to helping students acquire the skills and strategies that, in turn, would help them access the information from their classes. They noted, however, this question is not unique to online learning. In addition, another question was posed about what supervision is needed for special education teachers while they attempt to learn and implement different instructional practices? The participants agreed that simply telling instructors what should be different, but not providing further supervision, guidance, and resources would be ineffective. In a broader context, the question was also asked about what are the professional development priorities for special education teachers and how to evaluate their performance fairly and effectively? What institutions of higher learning are currently teaching early education and special education college students about specially designed instruction, including executive functioning strategies, workforce readiness, and social skills? What strategies need to be modified to be suitable for online learning as well?

Implications

Participants viewed the integration of evidence-based instruction and executive functioning instruction as an important topic linked to improving learners' outcomes. They noted discussions among different departments within their SEAs were occurring and these discussions were viewed as positive attention.

This discussion revealed common challenges across states regarding the need to shift from an overwhelming focus on teaching content to helping students more easily access the content and become better learners. In the recent past, accountability has been content driven, and students are missing what they need in terms of learning *how* to access the *what* of the content assessed on local, state and national assessments. The participants also indicated they were unclear about who had the responsibility of teaching executive functioning and learning strategies. They did agree additional professional development is necessary for both new and experienced educators. A crucial piece of this paradigm shift will require trust among all elements of the system from local educators to state-level education officials since historically the instructional and accountability emphasis has been on students' content knowledge and skills. An increased instructional focus on teaching executive functioning will indeed increase students' achievement and assessment scores even though it is not directly teaching content.

The other significant challenge or concern is whether one can assume instructional practices that have demonstrated effectiveness in the traditional classroom environment are as effective in the online environment. One of the group's suggestions is that even though effectiveness of instructional practices is unknown, implementation will likely proceed until disproven. The need exists for "re-culturing" the education system that values outcome evidence directly linked to implemented instructional practices. While the discussants didn't address research or evaluation methodologies for testing instructional practices, examples of such studies in the research literature would seem applicable even if they were not specific to online instruction.

From the discussions, several questions emerged:

1. Do evidence based practices in the traditional environment have comparable evidential support when instruction is in an online environment?
2. How does instruction in executive functioning or becoming a self-regulated learner occur in the online environment?
3. Unique qualities of online learning provide the potential for monitoring and supporting students learning content and the executive functioning strategies necessary to access such content. The question though is how are these advantages best integrated in the online learning environment and sequenced across age/grade levels?

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Appendix A

Forum Participants

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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	*OSEP staff and Bill East*
8:45 – 9:10	Introductions:	Your SEA experiences with online instruction (Questions suggested in the second cover letter)
9:10 – 9:15	Overview	*Explanation of how we hope this discussion proceeds*
9:15 – 10:30	Discussion	*Topic #1:* 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	*Topic #2:* 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	*Topic #3:* 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	*Topic #4:* 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	*Topic #5:* Effectiveness of teacher preparation in the online learning environment; Promising or negative practices that facilitate (negate) professional development
4:30 – 4:45		*Wrap-up, suggestions for improving our process and preview for day 2*

Wednesday, November 19, 2014

8:15 to 8:30	Review	*Review of yesterday and preview of the today's activities*
8:30 – 9:15	Discussion	*Topic #6:* Integration of optimal evidence-based instructional practices; availability of skill/strategy instruction in online environments
9:15 – 9:30	Break	
9:30 – 10:30	Discussion	*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
10:30 – 11:45	Discussion	*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)
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 | *Reimbursement issues and closing comments; Thank you and safe travels* |