

Using, Sharing, Integration, and Instructional Usage of Student Response Data among all Parties Involved in Online Learning

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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. The responses obtained from these administrators 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 2500 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?

Issues with student response data in the online environment

This sixth document in a series of ten manuscripts presents issues with effective and efficient student data usage. Numerous data issues exist regarding access, sharing, integration and instructional usage among the parties involved in providing and monitoring online learning (e.g., local school staff, virtual school staff, state education agencies, and online providers). The Center's previous research findings in this area included concerns that student data frequently were not considered when determining appropriateness of an online environment for a student with a disability (Burdette, Greer, & Woods, 2014; Greer & Deshler, 2014). In addition the center has not been able to gather substantial evidence regarding outcomes about specific online learning programs (e.g. Deshler, Rice, and Greer, 2014), and much work remains unfinished in terms of standardized or strategic data collection, usage, and sharing within and across local education agencies.

How is this topic addressed in your organization?

Most forum participants shared that while many types of data are being collected (e.g., instructional, demographic, usage, response patterns, outcomes and temporal indicators), the

various computing platforms and databases often were not compatible with one another. Many participants could speak to goals for data integration at the school and district levels, but lamented that in most cases progress toward such goals was slower than desired. They indicated that the schools and districts in which they work are moving toward integrated data systems that allow administrators to cull information in order to connect students' data as listed above. In addition, representatives at the forum shared ways in which they are using available data across different platforms. The examples include utilizing data teams at individual schools to identify students and student groups who (1) may not be benefiting from online materials as much as others or (2) are spending time engaged with online coursework but not showing academic progress.

One representative from North Carolina expressed that the school districts in which she works hold quarterly meetings to discuss data they receive from vendors about student progress. Each school has a data team with a representative from each grade level, who attends these meetings, and then additional meetings are held with their own school level data teams to delve deeper into data on specific students and student groups. Because most schools don't have data systems that easily communicate with the vendor's platform, they are manually bringing the data together from the two separate platforms and discussing trends and concerns. Nearly all of the forum participants stated that they are working on having one learning management system with a singular sign-on to create easier and centralized access to student data for all of those persons involved in the students' learning.

How important is this topic from your perspective?

A consensus developed among participants that the topic of student response data access, sharing, integration and usage was important and is going to continue to be important for some time. Many participants expressed that the topic is high on their priority list, and that they have put a lot of resources into creating a system that makes collection, access, and usage of student response data much easier for all of the parties involved in a student's education. One participant expressed that the importance of this issue of accessing and using response data extends beyond the outcome and progress data. The value becomes even more evident in accessing and analyzing nuanced data as well in personalizing students' learning experiences, which is critical for students with disabilities. The discussants also all agreed that gathering and using student response data was a priority for their schools to attaining their goals of integration, sharing, and usage. Representatives of larger institutions had more difficulties than smaller ones, probably because smaller institutions have a more integrated system with fewer levels of hierarchy and more consistency among the platforms.

What's going well for you on this topic?

When asked about what is going well in their schools the participants' answers were abundant and varied. One consistent theme emerged, however. Despite the difficulties in integrating different technologies, teachers and administrators are manually integrating data across platforms to inform the development of IEP goals and personalized instruction as well as

to monitor academic progress. One representative shared that in his schools, customizable reports are produced for the teachers of students enrolled in online learning programs (AZ). Another participant shared that the schools with which he works have built a platform for housing their own data (assessment and other outcome data), and any information that is used in their data driven instruction model is on this platform. They have invested significantly into that system, and the approach seems to be meeting most of their needs in terms of integrating data and supporting their data driven instructional model (TN/CA). Another participant noted that using student response data in online learning has helped facilitate compliance with IEP standards. Access to the needed data has been made easier already, despite being located on different networks and platforms (MI, NC). Additionally, one representative commented on increased collaboration among teachers, reporting that they discuss data and personalized instruction regularly, working together to find solutions for struggling students using electronic communication journals to document their collaboration (NC).

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

One of the most common frustrations shared among participants was the inability of student information systems, which house instructional and demographic data, to communicate with special education data platforms. Several participants reported that no singular student profile is accessible within one system. Rather two or more platforms must be accessed, one to see student demographic and academic progress information, and another database that indicates the student has a disability and houses their IEP information. Single sign-on systems have the potential to increase accessibility and use of student response data among teachers and administrators. Such systems maximize one's efforts to obtain data about a particular student or group of students by making all demographic, usage, academic progress, and outcome data available in one place. Participants indicated that a plethora of data exist across multiple systems for those persons working with students with disabilities who are enrolled in online programs but conveniently accessing the data is not. This disconnect creates challenges for teachers to decide which data to gather and use for IEP development and instructional strategies.

Unfortunately special education data platforms aren't the only challenge to creating single sign-on systems for data storage and access. Vendor platforms, which house all of the student data from time spent on online learning tasks to assessment outcome data, do not talk to the district and special education platforms most of the time. In order to achieve interoperability between vendor and district platforms, vendors have to give access to their application programming interfaces (API). One representative stated that they have been working very hard to achieve a single sign-on platform that includes vendor data, but still had only received API access from 20% of their vendors due to concerns about proprietary systems and intellectual property.

Although all parties participating in online learning are held accountable to the Family Education Rights and Privacy Act (FERPA) laws, privacy and protection can still be an issue. Multiple forum participants indicated that they receive data from their vendors in a

spreadsheet format, which introduces privacy and protection issues since data is being moved from a secure online database to a less protected format. One forum participant introduced the idea that when talking about students with IEPs in an inclusion-model classroom, an “ownership” issue becomes evident regarding data access and usage. When multiple teachers are working with a student, which educator is responsible for making sure appropriate data is being collected and all necessary parties have access to that data? The classroom teacher might have the most knowledge and experience accessing such data, but the special educator might be the one who knows the student best. In addition, this situation requires teachers and/or administrators to spend extra time searching for and aggregating data. According to at least one participant, teachers do not have extra time to be digging through data and should be able to spend that time on instruction. As one can see, many challenges and benefits exist to ensuring student response data access, sharing, integration and instructional usage among the parties involved in providing and monitoring online learning

What research questions could have a significant impact?

Unlike many other topics, participants only brought a few questions to the table when asked what research inquiries could have an impact on effective and efficient student response data access, sharing, integration and usage. Some representatives want to know if any other schools or districts have achieved a singular, fully integrated data system for all of their student data including students enrolled in online learning programs. If they have, what did they do to achieve this system, especially in their work with vendors and their platforms? Another question was how to uniformly collect discrete data about specific disabilities, when so many factors and variables exist and schools have their own curriculum and instructional approaches for students with various disabilities (AZ). The goal is to collect and aggregate data in such a way as to be able to use it to improve the efficacy of special education structure and instruction for the specific disabilities of the students served.

Implications

Historically, school staffs have relied on achievement scores or product completion to judge students’ responsiveness to instruction. With the available technologies, real time data are now available to indicate students’ processes to complete their work. The large quantity of data available to the educators and administrators represented at this forum suggests that great potential exists for using these data to inform placement and instructional practices for students with disabilities.

Many challenges and roadblocks still exist to achieving efficacious systems for accessing, using, and sharing student data. Schools and districts have to work with various types of proprietary technologies that do not communicate with one another and were designed to protect their unique features. The lack of integration among special education, student demographic, and vendor platforms has created both unique and uniform challenges according to forum participants. While smaller schools may have more success with integration, all staffs

face ongoing challenges of attempting to integrate the information and develop a meaningful profile in order to use the data to make instructional and placement decisions.

The discussions lead to several questions for further investigation:

1. On the topic of data “ownership,” when many individuals are involved in a student’s education, which educator is responsible for making sure appropriate data is collected, protected and shared with all necessary parties? How is this decided?
2. What existing policies need modification to support integrated data systems of student information and instructional programs?
3. How are school district, local schools, and online provider staffs best prepared to take advantage of the extensive data that can be available for student focused decision making?
4. Of the available student response data, which are most important to guiding instructional decisions?

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Appendix A
Forum Participants

OSEP AND COLSD FORUM

Practices and Challenges in Online Instruction for Students with Disabilities

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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 <ul style="list-style-type: none">• Welcome: <i>OSEP staff and Bill East</i>• Participant introductions: <i>Your district experiences with online instruction</i>• Overview: <i>Explanation of how we hope this discussion proceeds</i> |
| 12:45 - 1:45 | Discussion <i>Topic #1: Enrollment, persistence, progress and achievement for students with disabilities</i> |
| 1:45 - 2:00 | Break |
| 2:00 - 2:45 | Discussion <i>Topic #2: Parent preparation and involvement in their child's online experience and IDEA notifications</i> |
| 2:45 - 3:30 | Discussion <i>Topic #3: IDEA principles in the online environment (e.g., FAPE, least restrictive environment, due process protections)</i> |
| 3:30 - 4:15 | Discussion <i>Topic #4: IDEA principles in the online environment (e.g., eligibility assessment, IEP development)</i> |
| 4:15 - 4:30 | Break |
| 4:30 - 5:15 | Discussion <i>Topic #5: Access and coordination of related services for students with disabilities</i> |
| 5:15 - 5:30 | <i>Wrap-up, suggestions for improving our process and preview for day two. Dinner plans?</i> |

Wednesday, April 1, 2015

8:15 - 8:30	Review	<i>Review of yesterday and today's preview</i>
8:30 - 9:15	Discussion	<i>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</i>
9:15-10:30	Discussion	<i>Topic #7: Effectiveness of teacher preparation in the online learning environment; and promising (or negative) practices that facilitate (or negate) professional development</i>
11:15-11:30	Break	
10:30-11:15	Discussion	<i>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</i>
11:30 - 12:15	Discussion	<i>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)</i>
12:15 - 1:00	Working Lunch - Discussion	<i>Topic 10: Local supervision for online learning in general education and in particular for supervision in special education</i>
1:00 - 1:15	Discussion	<i>of your views on the Center's future activities</i>
1:30 - 1:45	Wrap up:	<i>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</i>