Preparing Special Educators for the K–12 Online Learning Environment: A Survey of Teacher Educators

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Abstract

Pioneering research studies in teacher preparation in online settings have taken place, yet little to no work has been done specifically focused on teacher preparation for special education and learners with disabilities. In the present study, researchers from the Center on Online Learning and Students with Disabilities conducted a web-based survey of special education teacher preparation faculty to determine the level to which they were attending to online education preparation. The survey was developed with a specific alignment to the International Association for K–12 Online Learning (iNACOL) online teacher standards. The results of this survey pinpoint several areas of need in the preparation of teachers who are will be working in online education and attending to students with disabilities in these settings.

Online learning, where instruction is provided (to varying degrees) over the Internet, is increasingly viewed as a viable means to providing education to K–12 students. The Christensen Institute for Disruptive Innovation predicts that at least half of all high school courses will be delivered online by 2019 (Horn & Staker, 2011), and several states are requiring online learning experiences (Evergreen Education Group, 2015). Under these circumstances, it is inevitable that students with many different kinds of disabilities are also entering online learning spaces (Basham, Stahl, Ortiz, Rice, & Smith, 2015; Evergreen Education Group, 2015).

Since the creation of the federally funded Center on Online Learning and Students with Disabilities, there has been an interest in what teacher work looks like in online settings and whether teachers come into these settings prepared for the realities of working with students, managing programs and devices, and interpreting the data generated from completed assignments. To answer these questions, several research studies within the Center have been conducted, which have further highlighted the need to support teachers in their work with students in online educational settings (e.g., Rice & Carter, 2015a, 2015b; see also Basham et al., 2015, for descriptions of studies). As the practice of online learning continues to expand, more targeted research that specifically addresses teachers of students with disabilities is needed. Minimally, it is important for the field of special education to be aware of the newly emerging issues associated with teacher preparation and online learning.

Teacher Competencies in Online Learning

While a great deal of research has focused on defining teacher quality in traditional settings, little is known about what constitutes teacher quality in virtual schools (Huerta & Shafer, 2015). In an example of early work, DiPietro, Ferdig, Black, and Preston (2008) sought to uncover online best practices in the Michigan Virtual School after Michigan became the first state to mandate virtual learning experiences as a graduation requirement in 2006. The researchers invited 16 fully certified Michigan Virtual School teachers with at least 3 years of experience to participate in their study of pedagogical practices. From the analysis of their interview data, 12 general characteristics, 2 classroom management strategies, and 23 pedagogical strategies emerged. These findings focused on the need for teachers to learn to develop curriculum and assessment using the online resources rather than traditional ones, strategies for dealing with student behavior when students interact asynchronously, and technological skills around troubleshooting and sharing technological skills with others.

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When Florida and other states began requiring online learning for all students, Cavanaugh, Gillan, Bosnick, and Hess (2008) investigated instruction in online algebra courses structured to allow both younger students, trying to accelerate their learning through an online course, and older students doing credit recovery to enroll. They found that teachers were generally unprepared to provide differentiated instruction to the range of learners enrolled in these courses. This finding drew attention to the notion that online teachers need to be prepared to meet the learning needs of both accelerated students along and those seeking to recover credit, especially since online teachers are often not involved in deciding how their classes are structured.

For students with disabilities, Greer, Rowland, and Smith (2014) asserted online instruction requires teachers with excellent communication skills, allowing teachers to interact with both students and adults in the home in varied formats (e.g., e-mail, written directions, phone calls, and periodic synchronous videoconferences or chats) because students with disabilities are often in need of more and clearer communication. Moreover, Rice and Carter (2015a) found that online teachers of students with disabilities value relationships with students as a primary means for decision-making and they build these relationships by constant monitoring and contact as well as by listening to learners' personal and family stories of hardship. What was different about this listening orientation is that it was done both synchronously and asynchronously and the stories often came in small pieces the teachers had to push together, rather than as a continuous narrative that might emerge in a regular classroom.

In addition, the role of the online teacher who is serving students with disabilities requires unique skills to ensure that necessary instructional, legal, and ethical demands of special education are upheld at professional levels within an online school setting (Basham et al., 2015; Rice & Carter, 2015b). As a very recent example, Carter and Rice (2016, this issue) found that in practice, administrators had only emerging understandings about how to help teachers use technology to support student learning, especially if doing so required the use of any system beyond what was already in place. Since specific teacher preparation for online instruction is crucial to the success of all students, it is necessary to understand how teachers are being prepared to work in online environments (Basham et al., 2015).

Online Teacher Preparation

Teachers need certain kinds of new skills for online learning, but what has been done to prepare them to develop these competencies? In the chapter *Teacher Preparation for K–12 Online and Blended Learning*, Archambault and Kennedy (2014) reviewed the preparation of preservice K–12 online teachers, suggested areas for future research activities, and shared ideas for policy practice. Their review of research indicated that teacher preparation programs should provide preservice teachers with the skills needed to become successful online teachers,

whereas in-service teachers could benefit from professional development training on online education.

Archambault and Kennedy's (2014) chapter drew attention to a previous call for a closer alignment between teacher education programs and practicum experiences that provide real opportunities to grapple with the changing demands of blended and fully online K–12 learning. For example, Irvine, Mappin, and Code (2003) provided a very early call to the field for direction in teacher preparation, laying the foundation to subsequent program revisions. This early work was also critical in the eventual development of teacher education guidelines for preparing K–12 teachers for blended and fully online classrooms (International Association for K–12 Online Learning [iNACOL], 2011). (These guidelines, referred to as online teacher standards, are discussed in more detail later in this article.)

As teacher education programs continued to develop curriculum and practicum experiences for the online instructional experience, their efforts began to appear in the teacher education literature. For example, Iowa State University (ISU) made early efforts to provide and evaluate field experiences in online learning (Davis & Roblyer, 2005). ISU gathered data from these preservice/in-service partnerships for one study. Findings suggested that the preservice teachers were able to articulate new understandings of the basic attributes of teaching in an online environment. They also began to process the implications of planning and facilitating instruction for student learning.

In addition, Kennedy and Archambault (2012) conducted a national survey (all 50 states) of administrators, faculty, and staff in teacher education programs to examine alternative field experiences in virtual schools. The survey sought to understand how—or if—teacher preparation programs required or recommended that teachers have practical experiences working with an online teacher in the virtual classroom. Five hundred twenty-two responses, representing a 34% response rate, were collected. The majority of the respondents, 77% ($n = 404$), indicated that they did not offer such experiences, 21.3% ($n = 109$) answered that they did. Upon further examination of responses, including actual descriptions of the virtual school practicums, only 1.3%, ($n = 7$) reported partnering with a K–12 online learning program and, were able to share what was required of the preservice teachers during this placement.

Teaching Standards for Online Learning

As a research base started to develop around teacher work in online environments, this informed teacher preparation, and then attention turned to standards as a way to codify the skills necessary for online teaching to be successful. Ultimately, this research led to the development of iNACOL's *National Standards for Quality Online Teaching* (see Table 1). These 11 standards were designed to provide state, district, institutions of higher education teacher preparation programs, and online K–12 programs with a set of guidelines for consideration in the development of teachers for the K–12 online classroom. Each

Table 1. International Association for K–12 Online Learning Quality Standards for Online Teachers.

Readers are to encouraged visit the iNACOL website (http://www.inacol.org) and review the document *National Students for Quality Online Teaching Version 2*, (October 2011).

- **Standard A:** The online teacher knows the primary concepts and structures of effective online instruction and is able to create learning experiences to enable student success.
- **Standard B:** The online teacher understands and is able to use a range of technologies, both existing and emerging, that effectively support student learning and engagement in the online environment.
- **Standard C:** The online teacher plans, designs, and incorporates strategies to encourage active learning, application, interaction, participation, and collaboration in the online environment.
- **Standard D:** The online teacher promotes student success through clear expectations, prompt responses, and regular feedback.
- **Standard E:** The online teacher models, guides, and encourages legal, ethical, and safe behavior related to technology use.
- **Standard F:** The online teacher is cognizant of the diversity of student academic needs and incorporates accommodations into the online environment.
- **Standard G:** The online teacher demonstrates competencies in creating and implementing assessments in online learning environments in ways that ensure validity and reliability of the instruments and procedures.
- **Standard H:** The online teacher develops and delivers assessments, projects, and assignments that meet standards-based learning goals and assesses learning progress by measuring student achievement of the learning goals.
- **Standard I:** The online teacher demonstrates competency in using data from assessments and other data sources to modify content and to guide student learning.
- **Standard J:** The online teacher interacts in a professional, effective manner with colleagues, parents, and other members of the community to support students' success.
- **Standard K:** The online teacher arranges media and content to help students and teachers transfer knowledge most effectively in the online environment.

of the 11 standards was structured to identify effective knowledge and understanding as well as the ability to implement the skills in the K–12 online classroom. The standards were meant to guide teachers through design, planning, strategy integration, and similar competencies that promote active and engaged learning.

Spanning a broad knowledge and skills base, the iNACOL Quality Online Teaching Standards (2011) do not distinguish between elementary, middle, or secondary grades, or between general and special education. Instead, each standard attempts to identify knowledge and understanding for a specific area (e.g., setting clear expectations) followed by what the skill would look like in practice (e.g., be able to effectively communicate with students). Practical in nature, the standards serve as a guide or series of indicators from which to envision effective online teaching. By identifying knowledge and skills, state

and district leaders are able to develop mechanisms with which to identify the appropriate professional for the growing online classroom. Likewise, teacher preparation programs and ongoing professional learning experiences can further foster the development of critical skills to successfully meet the needs of the online learner.

Finally, while these guidelines are referred to as "standards," iNACOL is not an accreditation body. The standards are written for districts and organizations (and potentially universities) to reflect on their individual efforts to support the implementation of the teaching standards. Specifically, each standard indicator is associated with teacher knowledge and understandings as well as teacher abilities. The standards are then associated with a self-reflective rating system:

1. 0 Absent—component is missing
2. 1 Unsatisfactory—needs significant improvement
3. 2 Somewhat satisfactory—needs targeted improvements
4. 3 Satisfactory—discretionary improvement needed
5. 4 Very satisfactory—no improvement needed

For students with disabilities, iNACOL standards should be considered within the context of a teacher preparation experience that is also aligned with the Council for Exceptional Children (CEC) standards, so that teachers develop the knowledge, skills, and dispositions to work effectively with students.

In order to help teacher educators and other stakeholders, such as school districts, make sense of the standards, Archambault and Kennedy (2012) examined three relevant teacher education guidelines and standards including those from iNACOL, the National Education Association, and the Southern Regional Education Board. The authors created a crosswalk of the necessary skills for teaching in the online classroom that fit into several categories: qualifications, professional development, and credentials; curriculum, instruction, and student achievement; online pedagogy; ethics of online teaching; communication/interaction; assessment and evaluation; feedback; accommodations and diversity; management; technological knowledge; and design. Ultimately, the crosswalk offered teacher educators and relevant accreditation entities a map of the necessary knowledge, skills, and dispositions teachers need in order to be successful in the K–12 online environment. Archambault and Kennedy used their crosswalk to further argue that online teacher preparation should align with standards for online teaching and recommended that preservice and in-service teachers should work with cooperating online teachers to model their best practices in the online classroom.

While this work was ongoing, other standards-making bodies, such as the CEC, were making revisions to their standards, but were not including online learning standards in their changes. Within special education, CEC professional standards are used by accreditation agencies, other professional organizations, and state education agencies to guide and further develop practice guidelines for the field. Thus, teacher preparation programs use CEC standards to determine what coursework and field experiences are critical for preservice teachers.

The preparation programs then identify experiences, requirements, and outcomes based on these standards. While other professional standards may be applicable (e.g., specific state teacher education standards), CEC standards have a direct influence on special education teacher pre- and in-service development across the country (Scott, Gentry, & Phillips, 2014). One can see the conundrum that has emerged. The online learning standards operate as guidance only and the accrediting standards do not address online learning.

As online teacher preparation becomes increasingly anchored to these standards, the issue of preparation to teach students with disabilities lingers. With changes taking place in the education system, it is becoming increasingly important to better understand the standards for supporting the preparation of special education teachers relative to online learning. Given this growing need, researchers from the Center developed an initial study to measure the alignment of special education preservice teacher education to the iNACOL standards. Specifically, this study sought to answer the following questions:

- How much exposure are special education preservice teachers receiving to K–12 online education principles?
- How well are special education teacher preparation programs aligning to the iNACOL standards?

Method

Participating Teacher Educators

Sixty-four special education faculty from the Higher Education Consortium for Special Education (HECSE) member institutions were recruited to complete an online survey concerning current efforts to prepare teachers for the K–12 online learning environment. Of the 64 recruited, 48 completed the survey for a 75% return rate. Faculty members were recruited through the HECSE Board where Center staff sought a representative from each of the 64 HECSE institutions to complete the survey. Each faculty member was asked to complete the survey from their perspective taking into consideration efforts underway across the special education teacher education program at their specific institution.

Table 2 offers a breakdown of the demographics of the 48 faculty participants with over 77% of the responding faculty teaching in the high-incidence disability area, nearly 17% in the low incidence area, and the remaining faculty associating with early childhood special education. With students with high-incidence disabilities making up 80% of all students with disabilities (U.S. Department of Education, 2016), we felt that the program area was somewhat representative of the typical breakdown between the high- and low-incidence areas realizing early childhood may be underrepresented based on national data (U.S. Department of Education, 2016).

Realizing that HECSE members might be preparing professionals for the special and general education classroom, dependent upon their department structure or state licensure/endorsement requirements, our criteria for survey completion provided specific directions. That is, teacher educators were

Table 2. Respondent Demographics.

Participating teacher educator demographic information	%
Area	
Early childhood: Special education	4.2
High incidence: Special education	70.8
Low incidence: Special education	14.6
Elementary: General education	6.3
Secondary: General education	4.2
Experience with online course	
Have taken online courses	56.5
Have taught fully online (100%) higher education course	61.7
Have taught blended (partially online) higher education course	68.1
Years of teaching	
1–5	25.5
6–10	19.1
11–15	8.5
16–20	10.6
20+	36.2
Age (years)	
31–36	6.3
37–42	22.9
43–48	14.6
49–54	12.5
55+	43.8
Gender	
Male	25
Female	75

asked to complete the items based on coursework and teacher preparation requirements affiliated with licensure/endorsement obligations for special education.

Our demographic data also sought to understand years of teaching in higher education, age, gender, and previous experience in either attending or teaching a fully online or blended course in higher education. Table 2 shows that 36.1%, the largest block of teachers, had over 20 years of teacher experience in higher education while 25.5% were on the other end of the continuum with 1–5 years. In addition, 75% of the teacher educators were female; nearly 44% were over 55 years of age. Over half of all respondents (56.5%) had taken an online course and a significant percentage had taught either a fully online (61.7%) or blended (68.1%) teacher preparation course.

Measure Development

A one page, web-based survey developed specifically for the study was the primary source of data in this research. Items were developed based on a review of the iNACOL Quality Online Teaching Standards. Formed in 2003, iNACOL has become the primary voice in leading K–12 fully online and blended planning through the production of policy papers, offering forums for sharing knowledge (e.g., an annual conference), and developing national quality standards across a variety of issues targeting blended and fully online K–12 learning. In 2011, iNACOL convened a group of experts to refresh and produce the second version of the *National Standards for*

Table 3. Teacher Education Survey on K–12 Online Preparation and Corresponding Responses.

*How Often Were the Following Elements of Teaching in a K–12 Online Setting Addressed During **Your** Teacher Education Courses?*

Questions	M	SD	1 (Not at All, %)	2 (Once, %)	3 (2–3 Times, %)	4 (More Than 3 Times, %)
Using existing, established technologies to support K–12 student engagement	3.42	0.85	4.2	10.4	25.0	60.4
Anticipating ways to use emerging technologies to support K–12 student engagement	3.13	1.02	10.4	14.6	27.1	47.9
Encouraging student interaction in K–12 online settings	1.98	1.11	48.9	17.0	21.3	12.8
Giving explicit instruction to K–12 students with online tools	2.13	1.12	40.4	21.3	23.4	14.9
Providing feedback to K–12 students through online tools	1.87	1.06	51.1	21.3	17.0	10.6
Discussing legal issues that arise when instructing K–12 students online	1.44	0.82	72.9	14.6	8.3	4.2
Holding conversations with K–12 students about Internet safety	1.71	0.90	52.1	31.3	10.4	6.3
Giving instructional support to K–12 students with disabilities in online settings	1.81	0.99	51.1	25.5	14.6	8.5
Creating assessments that are statistically valid for K–12 online formats	1.62	1.03	68.1	12.8	8.5	10.6
Creating assessments that are reliable in K–12 online formats	1.54	1.05	75.0	8.3	4.2	12.5
Aligning online coursework with K–12 content standards	1.79	0.16	63.8	8.5	12.8	14.9
Implementing online assessments of K–12 content mastery	1.74	1.18	67.4	8.7	6.5	17.4
Modifying online assessments based on K–12 student learning data	1.64	1.07	68.1	12.8	6.4	12.8
Interacting professionally with colleagues using online tools to support K–12 student success	2.34	1.16	31.8	25.0	20.5	22.7
Interacting professionally with parents using online tools to support K–12 student success	1.85	1.05	52.1	20.8	16.7	10.4
Arranging instructional materials to promote transfer of learning in an K–12 online environment	1.69	1.01	60.4	20.8	8.3	10.4

Quality Online Teaching (see http://www.inacol.org/resource/inacol-national-standards-for-quality-online-teaching-v2/). The standards were designed to provide states, districts, online programs, and institutions of higher education with a set of quality guidelines for what is needed to be effective in online instruction for the K–12 student. Each of the 11 standards is structured on two primary indicators that include *teacher knowledge* and *understanding* and *teacher abilities*. Each indicator includes a rating scale for teacher educators, district personnel, and others to use in order to identify whether this indicator is absent, unsatisfactory, somewhat satisfactory, satisfactory, or very satisfactory.

Center researchers reviewed the 11 standards and identified four overarching constructs which we believed to represent the essential foci of the standards and their specific relationship to the need of students with disabilities and the unique qualities of the blended and fully online classroom. These constructs were constructed through a four-step process. First, Center researchers reviewed the iNACOL standards and compared them with the current CEC standards. iNACOL standards and indicators that aligned with CEC standards were separated for further review. The final step was to determine how to structure the remaining iNACOL standards and indicators. From these remaining elements, researchers identified constructs that represented primary themes of the standards and recommended components of a teacher preparation experiences that foster skill development on the part of preservice teachers, specific to the blended and fully online K–12 classroom. The constructs were then organized into four areas that included (a)

establishing competence in using technology tools for the online classroom, (b) developing and integrating coursework experiences, (c) developing and implementing assessments that could be administered online, and (d) offering learning experiences that further promote K–12 online learning.

After defining and identifying the four constructs, Center researchers worked to develop corresponding items for each of the constructs. Item development included review by Center researchers and colleagues in special education teacher education. A total of 21 survey items were developed with each construct containing 4–6 items that more specifically reflected the content category (for the list of items, see Table 3). Questions pertaining to participant demographics were added for a total of 25 individual items for the web-based survey. Using Qualtrics Version 12.018 (Qualtrics Labs, 2012), the survey was transferred to an online format to ensure easy access for respondents.

After researchers developed this initial exploratory survey for identifying teacher educators' perceptions on how well they were integrating core knowledge, skills, and practices of K–12 online learning into their coursework as well as related practicum or field-based experiences, field testing was conducted in the form of a pilot study. The survey was sent to a convenience sample of 33 special education teacher educators across the country, targeting colleagues who taught at large teacher education institutions. Of the 33 contacted, 20 completed the survey with comments offered as part of the field-testing work. Feedback prompted the authors to revise item wording and restructure the Likert-type scale. As a result, the items affiliated

with the iNACOL standards include a 4-point Likert-type scale in order to assess the extent to which teacher education faculty addressed the K–12 blended and fully online classroom (1 = *not at all*, 4 = *3 times or more*) in assessment, instruction, and experience. Field testing also resulted in the addition of language specific to coursework or internship/practicum experiences. Researchers focused on frequency of experiences to determine the degree to which the practice was part of the teacher education program and, if so, the extent of the experience. The final items appear in Table 3.

Survey Administration Procedure

Participants were recruited from the 64-member HECSE organization in two distinct steps. First, a member of HECSE was asked to present an overview of the study at an HECSE Winter Summit held in Washington, DC. There, members were offered a brief introduction to the study and informed that a member of the Center on Online Learning and Students with Disabilities would be contacting them shortly after the meeting to determine interest in participating in the study and also identifying which faculty at their institution would be best prepared to completed the online survey.

Next, researchers with the Center called or e-mailed the HECSE representative to determine the institution's interest in participating and which of their special education faculty would be best to complete the survey. Once an individual was identified, Center researchers sent an e-mail that provided an introduction to the study, a link to the survey, and basic directions on next steps including suggested time frame for survey completion. A unique web address was developed for each online survey allowing for Center researchers to determine the institution affiliated with the survey completion. Follow-up e-mail reminders were provided 2 and 4 weeks after the initial invitation to participate. In four instances, researchers called a participant in order to answer a question on who should complete the survey or a technical issue in access and completing within the suggested time frame.

The web address for the Qualtrics-based survey was sent directly to each HECSE representative within 1 week of their confirmation to participate. Besides the 2- and 4-week reminders, participants received an automatic thank-you message after completing the online survey as well as 1 week after via an e-mail from one of the Center's researchers. Forty-eight surveys were completed for a return rate of 75% across 64 HECSE member institutions initially contacted and engaged as part of this study.

Data Analysis

Data were analyzed using the percentages reported in by the responding teacher educators and a ranking of the means for the various question items. Question items were then grouped loosely into seven categories: (1) technology use for student engagement, (2) instruction and feedback, (3) instructional design, (4) assessment design, (5) legalities and safety, (6) standards-based teaching, and (7) professionalism. In looking at these categories, several patterns emerged which are reported in the "Findings" section.

Results

Table 3 provides a summary of the faculty ratings related to competence in using and integrating technology on the part of the faculty and usage on the part of the preservice teacher education student being addressed in their current coursework. Using the 4-point scale with 1 = *not at all*, 2 = *once*, 3 = *2–3 times*, and 4 = *more than 3 times*, faculty reported means ratings as high as 3.42 and as low as 1.44.

Teacher educators self-reported several strengths. One strength was around using established technologies to support student engagement, with 60.4% of teacher educators saying that they addressed this issue more than 3 times in a course. A second strength was reported around anticipation of new and emerging technologies, with almost half (47.9%) reporting addressing this 3 or more times in their courses.

However, a rather large majority of teacher educators also indicated a number of areas where they did not address issues concerning K–12 online instruction at all. These items were discussing legal issues for the K–12 online learning experience (72.9%), creating assessments for the online format (75%), creating assessments that are statistically valid for the online environment (68.1%), aligning online curriculum to K–12 content standards (63.8%), implementing online assessment (67.4%), modifying assessments based on student learning data (68.1%), and arranging materials to promote the transfer of learning in a K–12 online learning environment (60.4%). In summary, the teacher educators reported an emphasis on technology use for student engagement, but they have been unable to implement instructional design and assessment elements toward blended or fully online into their courses as of yet.

The items that teacher educators reported including at least partially in their coursework 1–3 times included giving explicit instruction to students with disabilities in online settings (51.7%), giving instructional support to students with disabilities in online settings (48.6%), providing feedback to students using online tools (48.9%), holding conversations with students about Internet safety (48%), interacting professionally with colleagues (68.1%), and interacting with parents (47.1%). These percentages suggest some interest in addressing instruction in online settings more fully.

Discussion

The purpose of this study was to assess how much exposure to K–12 online education special education preservice teachers receive in their special education teacher preparation programs, and how well special education teacher preparation programs are aligning to the iNACOL Quality Online Teaching

Standards. The survey asked respondents, drawn from special education teacher education programs, to identify the number of times special education preservice teachers were exposed to the knowledge and skills associated with the iNACOL Quality Online Teaching Standards. Overall, the results of this survey indicated that teacher educators are willing to include the use of existent and emerging technologies in their practice and that they cover many of the topics outlined in the iNACOL standards at least once, especially those that involve the direct interaction with students, parents, and colleagues. However, a majority of the teacher educators who participated in this survey also reported that they never addressed a number of critical topics related to instructional and curriculum design, and assessment, especially when the assessments involved using student data.

The findings of this survey in relationship to the growth of online learning are important because they suggest a critical need for online education to be better integrated into special education teacher programs on these critical issues of instruction and assessment, as these are elements that contribute to student learning. However, it is unsurprising that the teacher educators would not know how to do these things because instructional and assessment design online likely requires different skills than doing so off-line and models for well-designed courses and assessments are likely to be scarce in the newness of "K–12" online learning. What the teacher educators were able to prioritize was getting teachers to interact with children and other stakeholders to provide support and hold conversations about their safety on the Internet and the general use of the Internet for instructional application.

Opening Eyes to Online Education

Recent years have seen the continued exponential growth of online learning, including fully online, blended, and personalized learning (Evergreen Education Group, 2015). In fact, the most recent Evergreen report (considered the most important annual metric of the field) notes that there is some form of online learning taking place in nearly every district across the United States. This means that, at any given moment, millions of K–12 students are working through online courses: included in those millions are students with disabilities.

This study indicated that teacher educators are able to consider elements of the iNACOL standards (nonaccrediting), but it is likely that the CEC standards (silent on online learning), which are the accrediting standards, are still taking precedent in program design. Even though teacher educators may be aware of things like legal issues in developing and implementing Individualized Education Plan documents in the brick-and-mortar setting, they have not been able to determine how to address this in the online setting. This finding is what Carter and Rice (2016) found among the online teachers who were working with special education students. But the relationship building and the need to seek out a child and provide particular help is still at the forefront of teacher education work in preparing teachers to work with students.

Therefore, there are at least three critical suggestions grounded in the findings of this study. First, teacher education departments and other advocates of online learning within institutions of higher education should offer to collaborate with special education teacher educators and lend their support, especially for skills like instructional design and assessment. Through these collaborative efforts, both parties would learn from the other.

Second, there is a need for accrediting bodies, including (although certainly not limited to) the CEC, to fully appreciate online learning and to use iNACOL standards to facilitate the incorporate online learning issues in teacher preparation and teacher quality evaluation, especially where students with disabilities are concerned. This is particularly critical from a legal standpoint, where online learning, being offered as one of the instructional options for a local school district, is then considered a type of placement. Students with disabilities have to be included, and they have to receive those legally protected services that are directly related to instruction as well as those which allow them to more fully derive educational benefit from instruction. In the evaluation of programs, students with disabilities need to be identified and their achievement needs to be monitored as a large group and by disability category in order to determine if what teachers are doing is working. When it is found that these students are not achieving, evaluating bodies should delve deeper as to why, and schools should address the issues and continue to monitor students.

Researchers were not surprised to learn that online learning, particularly through technologies that support student engagement, were included in special education teacher preparation, given the ongoing focus on technology integration in teacher preparation as well as the emerging status of online teacher preparation and the lack of attention to online learning in special education standards. What is surprising is that so many special education teacher educators were willing to complete the survey when it should have been clear from the survey title that they would not be able to give favorable responses to all the questions. As researchers, we viewed this as a testament to the interest that respondents have in learning about and preparing teachers for new roles and responsibilities. This is especially important because of the large number of senior faculty who responded, suggesting that they are sensitive to online learning as a trend and would like to know what they can do and how they can help. Hopefully the findings of this survey will bring attention to this issue and also support teacher educators—in learning how to give students with disabilities the choice and the chance to be successful at learning online.

Considerations for Future Research

Given the implications of these findings, additional research is needed. Special education teacher educators should be asked more about their work; especially important is working with those who were able to report that they were making some progress in including online learning preparation in their courses. How do they do this? What are their struggles? How

do they learn about trends in online learning, the field in general, as well as stay abreast of research in special education? Finally, there should be additional research among standards making bodies—both the accreditation and nonaccreditation groups—to learn about their interest in and efforts to include online learning and in thinking about student diversity in general as they move forward. With these goals in mind, the Center moves forward in its investigations.

Limitations

It should be noted that the findings of this research represent an initial research study and analysis of the findings. The considerations and complexities in teacher preparation should not be overlooked and caution should be exercised when interpreting the findings of a single study and its potential impact on the field. Moreover, while this survey was distributed to institutions of higher education that belong to HECSE, these institutions are only a representative sample of special education teacher preparation.

Conclusion

With online education taking place in nearly every district across the country (Evergreen Education Group, 2015), it is necessary for the field of special education to consider how special education preservice teachers are being prepared to work in these new learning environments. Readers are encouraged to read and reflect on the teacher preparation implications highlighted in this article and the other articles in this topical issue. Clearly, the field of practice is changing; those on the frontlines of teacher education should be cognizant of these changes in the preparation of teachers and the potential impact on students with disabilities and their families.

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