IDEAlly Prepared

Working Toward Special Education Teacher Preparation *for* **Online Instruction**

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Center on Online Learning and Students with Disabilities

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EXECUTIVE SUMMARY

As increasing numbers of students with disabilities enter online learning, it becomes increasingly necessary to ensure that online teachers are prepared with the knowledge, skills, and dispositions to provide legally mandated services and generally work effectively. Although the Individuals with Disabilities in Education Act (IDEA) is still leveraged to ensure the inclusion and success of students, working online presents unique challenges for teachers who may not see or interact with the young people over whom they have stewardship on a regular basis. Even so, little is known about what teacher preparation programs are able to do to attend to both online teaching and working with students with disabilities. With these notions in mind, researchers from the Center on Online Learning and Students with Disabilities attempted to identify and then gather together a group of special education teacher educators to talk about teacher preparation for online learning and students with disabilities.

The discussion group met at the Council of Exceptional Children Annual Meeting in St. Louis, Missouri in April 2016. Various groups met over the course of two days and offered their perspectives on their programs. These teacher educators indicated that online teacher preparation is occurring within special education programs, but that preparation is a medium of instructional delivery for teacher candidates rather than a goal. In other words, teachers are being prepared to work with students with disabilities *with* online instruction, but not *for* online learning.

This report highlights issues of online teacher competencies, the methodological strategies behind the assembly of the discussion group and the major findings. In addition, it provides an assessment of emerging promising practices and critical next steps that need to be taken in order to ensure that more teachers who enter the virtual classroom are truly prepared to meet the demands of students protected and served under IDEA legislation.

INTRODUCTION

Fully online and other virtual education opportunities are rapidly increasing for K-12 students. The US Department of Education reported that, in recent years, virtual education has become an integral part of K-12 education and nearly every student is exposed to virtual learning in some context, whether as a single aspect of a traditional course or program, in an entirely virtual program, or in any combination of traditional and virtual learning (National Forum on Education Statistics [NFES], 2015).

References to online or digital instruction are quite numerous and reflect a diversity of applications and implementations. Online learning can include programs embracing all of the following terms: blended learning, digital learning, distributed learning, open learning, networked learning, web-based education, cyber education, net education, computer-based learning, distance learning, and blended learning. The central construct of these terms is that that students experience learning opportunities over the Internet and are at least partially separate from a face-to-face interaction with an instructor in the same physical setting (e.g., classroom) (Christensen, Horn & Staker, 2013). In addition, online learning relies on information and communication technologies to support students' learning and achievement. With a little reflection, one can even imagine how the blended online environment, which includes a combination of face-to-face instruction with a teacher and age- or grade-mate peers and instruction in the online environment, provides a substantially different instructional experience for both the student and the teacher.

Providers and participants agree that the online instructional experience is markedly different from face-to-face education in a brick-and-mortar school (Molnar, Huerta, Shafer, Barbour, Miron, & Gulosino, 2015; NFES, 2015).

However, scholars have also become increasingly skeptical of the claims advocates for online learning make, "Proponents argue that online curriculum can be tailored to individual students and that it has the potential to promote greater student achievement than can be realized in traditional brick-and-mortar schools" (Molnar et al., 2015, p. 1). Even so, these authors went on

to note the lack of research base for these claims.

Individualized learning experiences can provide the optimal mix of learning supports to increase the learners' efficiencies and achievement. Even with the small amount of research available, there is a sense that teachers are necessary for supporting the levels of personalization and individualization potential of online learning (Vignare, 2015).

The purpose of this paper is to report on research activities that studied teacher preparation within the context of higher education institutions.

More specifically, the report summarizes teacher preparation programs' efforts to provide preparation for special education teachers in the online environments.

OVERVIEW OF ONLINE TEACHING COMPETENCIES

Teacher roles in online learning settings vary depending on a number of dimensions (e.g., the setting in which they teach, the student management model, the class size, and the extent of the proportion of face-to-face and online instruction). In the variations of instructional environments (e.g., face-to-face, fully online, blended, and independent), instructors' necessary knowledge

and skills are markedly different. 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 (Ferdig, Cavanaugh, DiPietro, Black & Dawson, 2009; Molnar et al., 2015).
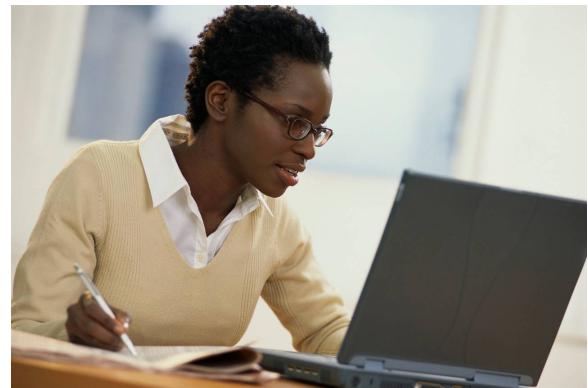
One proposal for classifying these roles according to responsibilities and competencies comes from Harms, Niederhauser, Davis, Roblyer, and Gilbert, S. B. (2006). These scholars articulated roles that included (a) Virtual School Designer; (b) Virtual School Teacher; and/or (c) Virtual School Site Facilitator.

A Virtual School Designer, according to Davis (2007) designs materials and collaborates with other faculty to create curriculum and classes. A Virtual School Teacher operates in a more traditional teacher role. That role includes providing (a) learning activities and lessons, (b) structure and scheduling, and/or (c) grading and managing assessments.

Finally, the Virtual School Site Facilitator acts as a mentor, records grades, and performs other administrative tasks. Whatever the role, the work is done synchronously or asynchronously online with a learning management system rather than face-to-face (Barbour, 2012).

Another perspective on competencies come from professional consensus from teachers themselves. Archambault and Larson's (2015) survey of 325 online teachers found that teachers should be self-motivated, place a high value on learning and education in online settings, and enjoy the challenge and process of using technology for teaching.

Although research linking teacher qualities with learner outcomes in the online environments is limited, multiple organizations have attempted to leverage professional consensus to specify competencies or standards for online instructors (e.g., International Association for K-12 Online Learning [iNACOL], 2010; International Society for Technology in Education [ISTE], 2008). In order to make sense of these standards, Archambault and Kennedy (2014) and Natale (2011) reviewed iNACOL and ISTE's current online teaching competencies and standards and compared similarities and differences.

These two sets of standards then represent a set of professional expectations for teacher preparation in terms of issues such as accountability, evaluation, and even certification, but do not attend directly to instruction for students with disabilities.

The lack of attention iNACOL and ISTE standards pay to special education is unfortunate, especially given the differences between online and traditional teaching environments. For example, while students in face-to-face special education programs may use computer-based assistive technology (e.g., word processors, speech synthesizers) in the classroom in order to better access the curriculum, this distinction does not mean that online environments are inherently constructed to meet the unique needs of students with disabilities (Jimenez & Graf, 2008). In fact, after reviewing hundreds of online lessons from six widely used vendors of K-12 online education products, Smith (2015) found that the majority of the products examined were not designed to make content equally accessible to all students, including students in special education.

In addition, Rice and Carter (2015) found that fully online teachers of special education students considered relationship-building

their most important strategy for working with students with disabilities, and they accomplished this through constant monitoring of student work and frequent attempts to communicate. Further, these teachers built relationships with students by listening to their stories of academic and personal hardship, and they did what they could to leverage school resources to assist the students and their families. Note that this strategy is focused on the teacher-student relationship and not specific instructional strategies for improving students' learning, content knowledge, or skills.

Finally, when Huerta and Shafer (2015) reviewed existing state policies for teacher preparation in the online learning environment, they found little attention to teacher preparation in the policies that they reviewed. Further, no mention was included of special education teacher preparation—at all. Their conclusion was, "It seems that the academic realm may need to take the lead—without legislative mandate—on conducting effective research to better understand" teacher recruitment and preparation [in online settings] (p. 21).

To this end, the research question for this study was: How have institutions of higher education changed preservice special education teacher preparation programs to prepare prospective teachers for instructing students with disabilities in online environments? To address this question, researchers surveyed and held discussion groups with faculty members from higher education programs that prepare special education teachers. The methods for this activity are described in the next chapter.

METHODS FOR LEARNING FROM
TEACHER EDUCATORS ABOUT
ONLINE SPECIAL EDUCATION
PREPARATION

Participants in this discussion group were higher education faculty attending a national conference for special educators and stakeholders interested in special education topics. The higher education faculty attended a scheduled discussion group.

Inviting Special Education Teacher Educators

Two strategies were followed in participant recruitment. For the first strategy, research staff identified higher education faculty who were engaged in the preservice preparation of K-12 special education teachers and who were attending the Council for Exceptional Children 2016 special education convention

and expo. This approach utilized the most recent US Department of Education Office of Special Education Program (OSEP) database of 325K and 325T grant awardees.

Project staff reviewed the grant award abstracts and used that information as a filter to determine whether the grant focused on some element of online instruction. Since these awards were OSEP funds, the staff's tacit assumption was that the focus of the expenditures would include students with disabilities.

Specific keywords used for filtering included instructional technology (e.g., use of devices or technologies that supported the instruction of students with disabilities), online learning, digital learning, blended learning, and virtual learning.

In addition, projects were excluded if they were focused on providing related services, minority recruitment, multicultural education, early childhood education, post-secondary education, or were awarded to a University of Kansas faculty member. This strategy yielded n=40 possible participants.

Project staff then emailed the project's principal investigator regarding the research activity, asking whether they or a colleague were planning to attend the CEC conference and if they had an interest in participating on a research panel on teacher preparation

The response rate for these emails was approximately 25%, with 11 participants agreeing to attend one of the scheduled research panel discussions at the CEC conference.

The second strategy was for project staff to review the CEC conference program for presentation titles that

referenced online instruction and the keywords noted above. Since the focus of the study was on higher education faculty activities, non-faculty presenters (e.g., teachers, graduate students, vendors, related services staff) were excluded from further consideration. This strategy yielded (n=25) possible participants. These persons were emailed an invitation to join the research panel discussion. This approach identified an additional (n=9) participants.

Twenty individuals indicated interest in participating in the discussion groups and 13 confirmed their attendance. The actual number of participants was nine.

Participant Description

The nine teacher educators in this study were adjunct lecturers (n=2), assistant professors (n=2), and associate professors (n=5). The adjunct lecturers were researchers for private firms who were also teaching university courses in special education teacher preparation. The class sizes across their institutions ranged from 15-38 students.

The least experienced teacher educator had taught for 5 years; the most experienced for 18 years. The specific courses taught by the participating faculty members included (1) assessing students with disabilities, (2) behavior

management, (3) computer/technology in education, (4) foundations of special education, (5) inclusive educational practices, (6) learner characteristics, and (7) graduate research methods courses.

These teacher educators prepared classroom teachers for working in both public and private school settings.

Instrument Development and Data Collection

The meeting with the teacher educators included two data collection activities: participation in the discussion group and a short survey. The discussion groups were audio taped and transcribed for analyses.

The participating teacher educators were structured into four groups—according to their availability—and asked seven topical questions. In each group, a moderator from the research team asked the questions and the teacher educators were invited to respond. When a teacher educator did not speak in turn, the moderator invited the teacher educator to speak.

Two additional members of the research team were also present, taking notes and asking follow-up questions as necessary for

clarification. The seven discussion group items focused on the participants' experiences with preparing special education teachers to work with students with disabilities in the online environment.

These questions were developed from the staff's experiences in previous research activities with state departments of education, local school administrators, teachers, vendors, and other researchers. The topics reflected both conceptual and practical issues of preparation for the online environment.

Discussion Group Questions

1. An impression is that faculty give little attention to preparing teachers to work with students with disabilities in the blended or fully online environment. Do you agree or disagree? On what basis?

2. What elements of online education are integrated into your teacher preparation program (e.g., blended environment, fully online environment, synchronous and asynchronous models, instructional practices, student motivation, parent collaboration, integration of related services, progress monitoring, curricular modification)?

3. What are major influences on your teacher preparation curriculum and experiences (e.g., iNACOL

online teaching standards, CEC's professional preparation standards, journal articles, research reports, your state's emphasis, grant award, faculties' professional interests)?

4. How are K-12 online learning or teaching experiences integrated into your practicum, student teaching, internship, and/or service learning experiences integrated for your pre-service teachers?

5. How does your program address IDEA implementation in the online environment (e.g., FAPE, determining the LRE, developing an IEP with goals and objectives)?

6. What are your top 3 pressing concerns or challenges in addressing K-12 online education in special education teacher preparation?

7. What do you see as critical next steps for preparing special education teachers to work in the online learning environment?

In addition, nine survey questions focused on the level to which the participants felt the teacher preparation programs supported teaching online and preparation for teaching online, and included additional items about the participant's (a) years of teaching experience—total and online, (b) course loads and students enrolled in courses, and (c) type of institution and program.

The paper-pencil survey was designed to learn about the participants' background and experience in teacher preparation and their knowledge of and attitudes about elements of special education teacher preparation (e.g., incorporating the iNACOL standards in the classwork, value they attach to online teacher preparation, sense of support among their peers and institution).

These attitudinal items were assessed with responses to a five point Likert-like scale for level of agreement (e.g., strongly agree to strongly disagree), and also two other options for non-applicable items and for items where they did not know the answer.

Data Analysis

The discussion group responses were analyzed in several cycles (Saldaña, 2015). In the first cycle, two members of the analysis team engaged in multiple re-readings of the transcripts and repeated listenings to the recorded data. Each member made notes and reported to the

group their ideas about what they perceived as the most salient findings.

Second, the data were subjected to an annotative coding process in which each data analysis team member highlighted ideas that repeated across discussion panel sessions for the individual questions asked during the discussion panel sessions. Findings from this round emerged as a list of open codes (Charmaz, 2008).

The team met again to share what they had learned in this second round and to develop the open codes into themes (Miles, Huberman, & Saldaña, 2013). Where no clear codes emerged across discussion panels, findings were developed as tensions embodied in individual perceptions.

 The need to highlight individual perspectives rather than consensus across discussion panels emerged when discussing the legal implications of online learning for students with disabilities. The panelists' survey item responses were analyzed using SPSS (version 23). Findings from these data sources are found in the next chapter.

FINDINGS AND IMPLICATIONS

As part of the overall organizational approach used for determining and reporting key findings, the research staff grouped the seven discussion group questions into three broad categories: local practice issues, legalities of teaching special education online, and challenges in moving forward.

Local Practice

In the survey, the 88.9% of the teacher educators strongly agreed that more emphasis was needed on online learning preparation for students with disabilities. Further, 100% either agreed or strongly agreed that they value online teaching.

This set of discussion group items was designed to elicit information from participants about the local practices in their special education teacher preparation programs.

Institutional Attention to Online Preparation

In the survey, 44.4% of the teacher educators disagreed that their colleagues support them in trying to develop teacher preparation programs for teaching students with disabilities online, while 11.1% strongly disagreed. Only one teacher educator (11.1%) felt collegial support.

In addition, 33.3% were unsure as to whether they were supported, which suggests that the institutions of these practitioners are either not having conversations about online learning for students with disabilities, or these teacher educators have not been involved in the discussions.

The teacher educators were divided as to whether they felt their institutions as a whole supported them, with 22% indicating they were supported, 22.2% feeling unsupported, 22.2% feeling strongly unsupported, and 22.2% unsure. One person (11.1%) deemed the question inapplicable. Finally, 33.3% did not feel that they could say whether their students were prepared, but 55.5% indicated that their students were not prepared to teach students with disabilities online.

During the discussion, the consensus that emerged with regard to question 1 (about general preparation) was that increasing amounts of special education teacher preparation was being delivered online, but almost no attention was being given—in any of the institutions—to preparation for teaching assignments in online learning environments. That is, the teacher preparation programs incorporate opportunities for online instruction in the course of study, but do not specifically prepare teachers to teach in online environments.

Themes and trends describing teacher educators' perspectives as to why so little attention is given to this topic included the following, which are highlighted with quotations from the discussion panels:

Lack of research base for best practices around supporting special education students in online learning environments

> On the preparation side, we don't have any evidence that that online learning is effective for these kids [students with disabilities] so why should we pour in all this energy? (Discussion Session 1. April 14, 2016)

Questions about the effectiveness of online learning were pervasive in all four sessions. To the panelists, the evidence that online learning, particularly fully online learning, suggested that students with disabilities fare poorly in these environments in terms of both achievement and persistence. Therefore, the case was difficult to make as to why substantial resources should be allocated to preparing teachers to teach in these environments.

While the teacher educators did understand the potential connection between better instruction and student achievement and persistence, they reasoned that, until an evidence base existed indicating what would work for students with disabilities, any preparation efforts they made would be based on mere speculation. More research on how to teach students with disabilities in online settings was highly recommended.

Lack of models, funding, teacher educator experience, and other resources necessary to build strong programs

> There's antipathy toward online learning in general. Resentment and disapproval. Teacher educators at my institution don't like it; they want the face-to-face interactive experience. (Discussion Session 3. April 15, 2016)

Since there is such a slim research base, models and examples of high quality online learning for students with disabilities have not been developed and publicized. This lack of models and experience generated negative feelings toward preparation for online learning.

One teacher educator spoke strongly when he used the word "antipathy," but many teacher educators in the sessions mentioned the frustration of being asked to do "something" and not know what that "something" looked like.

Another teacher educator suggested the need for professional development for his colleagues.

> If we are going to prepare special education teachers to work in the online environment, we as teacher educators need explicit instruction as to how to do that. We have talked to our students and we think that is what they would need too. We are doing some things to model online learning hoping that they will pick it up, but that is not enough. (Discussion group session 3, April 15, 2016)

The link between models and instruction was made directly in each of the sessions. The teacher educators clearly indicated that they were presenting material in an online format and expecting that teacher candidates would pick up on those models without the teacher educators being explicit. Yet they found themselves unable to present the teacher educator pedagogy knowledge and make it explicit enough for their students because they themselves had never been explicitly taught how to enact high quality online instruction.

Lack of accountability to accreditation entities

> You know, we align our programs with state standards so we can get accreditation, right? It should be explicitly stated in those standards—teacher performance expectations online—because then the program would be forced to address it. (Discussion Session 4. April 15, 2016)

Teacher education programs are monitored with increasing scrutiny, according the teacher educators, and therefore they have many standards and accrediting hurdles to overcome to maintain accreditation. Currently, accrediting bodies and standards-making organizations (around disability in particular) are not calling for online learning as a major consideration in program evaluation. Until they do, the teacher educators indicated, online learning for students with disabilities was likely to remain the concern of only a few

teacher educators in particular teacher preparation programs.

Lack of standards for supporting K-12 students with disabilities online

> iNACOL standards are not always included in other teacher standards. For the EdTPA, (a teacher performance assessment) the standards for general education teachers look just like the standards for special education teachers. Our state is taking on that model. They want to prepare a teacher as a trunk of a tree and then have branches for low incidence disabilities and other specializations. (Discussion Session 4. April 15, 2016)

In the participant survey, 71% reported being unfamiliar with iNACOL or other technology standards. In addition, 80% of the teacher educators indicated that they do not use the standards in their planning and teaching, as well as in the assessment of teacher candidates.

While the teacher educators were generally aware of the existence of technology standards, they reiterated their concern about accreditation—that no real requirement existed to prepare teachers of students with disabilities for online learning—but added additional concerns about the shifting model of teacher preparation. In particular, they thought that teacher preparation was moving to a model in which programs prepared all teachers (generally) to work with students with disabilities and bring in specialists only when needed for the most difficult to serve populations.

Within this model, the teacher educators reasoned, standards from technology and other organizations were less likely to penetrate teacher preparation expectations. Instead, only standards from highly general organizations were likely to receive attention.

Lack of real demand from the local K-12 schools for online special education teachers

> The schools don't have much to offer [in terms of placement]; all they have are technologies like SMART

Boards in classrooms. (Discussion Session 4, April 15, 2016).

In order to have good relationships with schools, the schools of education must pay attention to what resources are available in local schools. According to the teacher educators, in many cases the classrooms that teacher candidates enter as beginning teachers are not technologically sophisticated. Thus, little justification exists for preparing teachers to work in new and emerging environments, such as online learning. Another teacher educator said:

> You go out to some school sites and you see there is only one computer for students to use … It's like Cuba. (Discussion Session 4, April 15, 2016)

Instead, the teacher educators indicated a sense of a greater responsibilities to pay attention to the realities of technological scarcity in classrooms serving students with disabilities, rather than assuming a climate of plenty. This perceived scarcity may be one reason why public school educators are not contacting the schools of education and demanding that they produce teachers who can work in online learning environments.

Teacher candidates are unaware of the potential of teaching online and/or unwilling to learn about how to teach at all, let alone online

> When I do something simple like assign a video, I get all these messages: my computer won't play the video … They get out of their educational experience what they put into it. They don't want to buy books, then they don't get the benefit of the book's content. (Discussion Session 2. April 14, 2016)

Among the frustrations experienced by the teacher educators was the apparent unwillingness of the teacher candidates to engage with, explore, and think reflectively about technological learning experiences.

When teacher candidates are unwilling to perform basic tasks, such as troubleshooting an online video, the teacher educators felt less confident in committing to weightier work around more complex online

education and instructional design issues for students with disabilities.

Ideological concerns about whether online environments are sufficiently inclusive after decades of efforts to integrate students with disabilities into general education settings with their peers without disabilities

> Well, I'm seeing a kind of going backward. We've so far been pushing inclusion of students in general education and now it seems there is a push for separate, individualized online education. (Discussion Session 4. April 15, 2016)

The teacher educators in these discussion panel sessions all stated a commitment to inclusion principles coupled with new understandings about the history of the need for advocacy for inclusion.

The panelists were genuinely concerned that students being taught online might forego the long-fought-for opportunities for students with disabilities to be educated, to the greatest extent possible, in an environment with their peers.

These opportunities include periodic small group discussions, voluntary chat room and discussion board interactions, and authentic chances to build social skills by participating with and watching their classroom-age peers. As a group, they could not report any research descriptions of collective and individual community building activities that had been strategically created in an online learning environment.

Emerging Practices in Teacher Preparation for Online Learning
The consensus that emerged in the four discussion groups, with regard to question 2 about what they have been able to do, focused on the increasing amount of teacher preparation activities (including supervision) that was occurring online. Themes and trends that describe what the teacher educators have been able to include the following, which are also illustrated by quotations.

Increasing online/blended course offerings for initial preparation

> We have an autism certificate program online, an assistive technology certificate online, and applied behavior analysis endorsement that is offered both online and face-to-face. (Discussion Session 1. April 14, 2016)

For the reasons detailed above, little preparation for online learning is occurring in special education programs within the schools of education of the teacher educators who participated in these discussion panels.

However, the teacher educators did note that offering more coursework for both in-service and pre-service teachers was important for helping members of their own departments (and the academy) to become accustomed to the alternative procedures and practices of online education. Particularly popular in several institutions were certificate programs, rather than full degrees, potentially because fewer courses have to be managed online or because these courses are in high demand in areas that are within the state or region but further away from the physical institution.

Increasing online/blended format endorsement and master's [special education] programs

> We also have a master's program with at least three courses that are available in both online and face-to-face formats. So these teachers are getting the experience of taking online courses. (Discussion Session 1. April 14, 2016)

The teacher educators also indicated that the number of online options for pre-service coursework were increasing.

The dual delivery system in which enrollees could choose fully online, face-to-face, or some combination, was perceived by the teacher educators to be part of the initiatives intended to increase the number of teachers who would like to pursue a master's degree. This system was especially important in states that no longer offered salary increases for master's degrees; the only way to find candidates willing to take the time to increase education without a promise of increased pay was to offer an online option.

Therefore, this approach was more about program preservation than about helping teachers learn to work more effectively with students with disabilities online.

Advocating for accessible for their students with disabilities who are preparing to teach

> I know I have a lot of students in my teacher education classes with learning disabilities. I've had to think about the best way to support them. (Discussion Session 1. April 15, 2016)

The teacher educators noted that many of their pre-service students had disabilities. They also indicated that their major focus for online education was ensuring that these students had access to online courses and access to materials and programs within the courses.

Even so, the teacher educators acknowledged that the support available from their institutions was increasing. Even so, a concern every semester was to make sure that videos were captioned, screen readers were available, and plain text options were in place for students to use.

Arranging for field experiences in schools that would transfer to online/blended instruction

> In our program, there is a 24-hour field experience that all of the teacher candidates have to do. They work in the field experience office and so they have to take what they have learned related to using assistive technology for struggling students and then when they are placed in regular classroom they have to do an instructional technology assessment, observe the technology in the classroom, and conduct an interview with a computer/technology person in the school. (Focus Session 2. April 14, 2016)

This quotation represents the consensus that more practical experiences were needed in which teacher candidates worked in online settings with students with disabilities.

According to the teacher educators, when schools of education offered online experiences, these experiences were often short in duration and the focus was more on helping the teacher candidates notice the technologies available in the setting.

For graduate students, unless they were coming into the program as a teacher in an online context, no opportunities were available to experience working in an online educational setting with children with disabilities.

Re-evaluating curriculum to locate opportunities to prepare teachers for online/blended environments

> By participating in this discussion panel, I am wanting to go back and audit our curriculum to see what is implicit versus explicit and where we are actually addressing the different pieces. (Focus group session 2, April 14, 2016)

Discussion panelists were responsive (during the sessions) to the need for online preparation for working with students with disabilities, even though they felt that many implementation challenges needed to be addressed.

The fact that several teacher educators were willing to revisit their curriculum and start conversations with colleagues suggests that targeted professional development holds some promise for improving teacher preparation for online learning with students with disabilities.

Providing practical online teaching experiences

The consensus that emerged in the discussion groups with regard to question 3 about hands-on experiences teaching online was that such experiences were largely unavailable and difficult to arrange because their schools of education require certification of sites to ensure that they will be proper stewards of new teachers.

Online schools have been less willing to go through these certification processes. Themes and trends that describe what the teacher educators have been able to do include the following, along with quotations.

Building long-term online/blended placement relationships

> We do have some classes and some schools where we have online placements, but the children are online and our students are merely monitoring them...there is a big question mark about the quality of those placements for our students ... how can we evaluate that as an experience? (Discussion Session 4. April 15, 2016)

Finding and maintaining school placements for teacher candidates is a difficult aspect of teacher educator work. The placement sites need to be willing to host students, provide on-site mentors, be (generally) safe, and have a plan for supporting student achievement, according to the teacher educators.

Even with these minimal criteria, the teacher educators said that few online/blended schools are willing to work with them to place teachers. Further, the teacher educators have strong objections to placing their

teacher candidates in learning environments, such as the one described above, in which little actual teaching occurs.

Developing a vision that will guide the introduction of additional placements

> Before we start incorporating ideas about creating programs that prepare teachers to work online, we have to be very clear about what the goal of an online preparation program specifically for students with disabilities should be. It has to be really clear before the teacher education programs will respond. (Discussion Session 4. April 15, 2016)

The issue of vision and goal setting for increasing the quantity and quality of online teacher preparation for students with disabilities emerged in all of the groups.

The sense from these conversations was that such a vision should be

developed and promoted externally through policies grounded in research before schools of education could respond internally with new program designs. This sentiment tied closely to earlier session ideas about standards, accreditation, and models of good practice as major areas of support.

Critical Next Steps for Attending to Issues of Local Practice
The perspectives and understandings provided during the discussion panel have several implications for the preparation of online and blended learning special education teachers.

These implications highlight the need for (a) larger, more substantial research base around best practices for online learning, (b) rewrites of standards and accreditation documents that included specific steps for building a teacher force that can serve students with disabilities online, (c) formalized relationships between schools of education and K-12 online/blended settings, ,and (d) attention to the ideologies, visions, and goals of online education for students with disabilities and the messages that are sent regarding this type of education to teacher educators.

Reframing this information in terms of its potential for inclusion and supporting that argument with research-based strategies for doing so should be part of the message that teacher educators receive as they grapple with local implementation of online teaching programs for students with disabilities.

IDEA Implementation
Implementing the legalities of IDEA in online environments is not a straightforward process. The dynamics of service delivery change and the goals that are set shift according the curriculum in the online environment.

In addition, accommodations such as "fat pencil" no longer apply. The teacher educators are mindful of these issues, but they have not yet found ways to help teacher candidates make these transitions smoothly.

Themes and trends describing teacher educators' perspectives—as to the level to which they are able to address IDEA in online settings—included the following, which are highlighted with quotations from the discussion.

The consensus that emerged in the discussion group in regards to question 5 about preparing teachers

to implement IDEA compliance in online learning environments was that either this preparation was not occurring or the participants had limited knowledge as to whether these concepts were being covered as part of pre-service preparation.

The teacher educators did indicate the importance of integrating information about legalities into teacher preparation and that this integration was soon to be addressed.

Further, participants expressed a concern that collegiate online programs were not addressing the needs of pre-service teachers who themselves have various types of disabilities.

The need to address IDEA implementation online as a field

> I don't think we've done it. It's on the horizon. When I saw the latest draft of the teacher performance expectations it will be something that will need to be addressed. (Discussion Session 4. April, 15, 2016)

The perspectives provided by teacher educators indicate an awareness around the issues of IDEA implementation, but they think more attention will come as a result of increase teachers' performance expectations and competency exams.

Whether these new performance expectations for teachers actually do spur an interest in IDEA in online settings is yet to be seen.

The need to discuss legal issues with teacher candidates

> [O]ur problem is we never even talk about if it is appropriate to use online courses for the kids with disabilities in the college class at all. Not even thinking about the standards or implementation, our teacher candidates are not even ready to even think about using an online program for the K-12 students. (Discussion group session 4, April, 15, 2016)

This quotation exemplifies the expressed need for institutions of higher education to ensure that the online courses they are providing are meeting the needs of pre-service

teachers. Further, it is important to note that participants viewed lack of accessibility and lack of discussion around the appropriateness of online classes for students with disabilities as problematic.

Major Concerns Moving Forward

The consensus that emerged from the discussion groups in regards to question 6 about major concerns moving forward included assessment, quality of content, technology, and access. The teacher educators indicated that these challenges were due to rotating learning management systems, absence of quality indicators of online curriculum, lack of knowledge of student technology needs, and lack of understanding of best practices in online assessment.

The teacher educators reported varying levels of ability to find current information on how best to prepare teacher candidates to serve students with disabilities in the online learning environment. When presented with the survey item, "I can find the information I need to stay informed about preparing special education teachers for working with students with disabilities in online learning settings," 44% selected "disagree" or "strongly disagree" as a response.

Themes and trends describing teacher educators' perspectives on the major concerns included the following, which are highlighted with quotations from the discussion panels.

Increasing the quantity of content to prepare teacher candidates to teach students with disabilities in the online learning environment

> There really isn't any content of any class that I know of. And if it's not in any of our online classes then I doubt it's in any more traditionally face-to-face classes that prepare our graduates to teach in a K-12 online education setting. (Discussion Session 3. April 15, 2016)

Teacher educators described the absence of content geared toward preparing teacher candidates to educate students with disabilities in the online learning environment. For the teacher educators, the bottom line is that they are not sure what skills to teach, when, and for what contexts.

Increasing the quality of content of online learning instruction

> Who is going to look at each online class and make sure the online program does have appropriate quality? Do we have it, or does the administrator? Who has proper training to look into online programs? (Discussion Session 4. April, 15, 2016)

For the little content that had been developed, or was available, the teacher educators voiced substantial concerns with determining its quality. The lack of experts regarding this type of preparation as the root of their concern. In other aspects of their professional responsibilities, teacher educators can name experts in the field, but, in online learning for students with disabilities, they are not sure whose work to reference.

Clarifying demands for preparing pre-service teachers to serve students with disabilities in online learning environments

> One thing we have struggled with in our e-supervision system is getting folks to realize that just using the iPad and the camera, and the microphone in not in and of itself a strategy. And I think that's an important understand too, that just because you put a PowerPoint online, just because you do x, y, or z that doesn't mean you are doing online instruction. So what is good instruction and then what does that look like in an online context? (Discussion Session 2. April 14, 2016)

Concern was expressed regarding preparing teacher candidates to use technology. This concern is described in two parts—a lack of understanding of technology use, and how technology can be used to enhance instruction.

Further, when technology cannot be accessed or used, it is difficult to help teacher candidates see how to select resources for their own students.

Selecting appropriate online resources

> My concern would be how do we get them (teachers) to critically think about the programs that they may have say in choosing for their curriculum for online learning? And how do you think about pedagogy when a machine is doing a lot of the work for you? (Discussion Session 4, April 15, 2016)

As content is developed or becomes available, teacher educators said that they desired autonomy in terms of what tools to emphasize and how to use them to prepare teachers to serve students in online learning environments. This autonomy goal emerged from interests in having teachers in online learning settings prepared to think critically about digital tools that meet the needs of their students. Currently, the tools that the teacher educators use are provided to them by their institutions, chosen by their college of education or department chairs.

Ongoing assessment and self-evaluation within teacher education programs

> So there is concern about how we assess where we are with our curriculum within our teacher preparation program related to this particular issue? If we turn out to be a deficit, in that particular area, but it's not a particular research of our faculty, or not a particular area where anyone is focused. What would be the first line of defense in infusing that content into our courses that would also represent the best recommended practices? (Discussion Session 2, April 15, 2016)

The challenge of how to continually evaluate institutions on the quality of preparation for teacher candidates was discussed. The teacher educators did not feel sufficient support from their administration, coupled with the fact that there is no commonly held body of knowledge, in determining how to best prepare teacher candidates to provide instruction for students with disabilities in a variety of online learning environments.

The questions of who would be qualified to perform these evaluations, and who could provide guidance in program development,

was also discussed. Since the research base,

accreditation agencies, and professional organizations have such limited guidance, the void is quite noticeable and precarious to navigate.

Stability and consistency of learning management systems for teacher educators

> The first thing that comes to my mind is having an online tool that can maintain itself over time so that you're not constantly learning a new online delivery tool. I've been through three in eight years and actually we are going to a fourth in the fall. (Discussion Session 2. April 14, 2016)

The teacher educators expressed concerns on the revolving nature of learning management systems (LMS) used by universities in online learning programs. Teachers described the difficulties in learning the nuances of an LMS, only to have that LMS replaced with a new one. Students also have trouble continually adjusting to new systems, but the gravest concerns were that many of these LMS were chosen for their low price, even when they did not offer the accessibility options that were necessary to model for teacher

candidates and to serve those teacher candidates who themselves had various types of disabilities.

Critical Next Steps for Preparing Special Education Teachers for Online Environments

The consensus that emerged from the discussion group in regards to question 7 was that online education for students with disabilities and how to serve students in these environments lacked definition.

The vague nature of online learning and preparing teachers to educate in online learning environments is present in what constitutes appropriate online learning, providing explicit instruction of online learning environments, and defining the overall goal of online learning.

Themes and trends describing teacher educators' perspectives on critical next steps included the following, which are highlighted with quotations from the discussion panels.

Defining appropriate online learning

> I definitely think exposure is the first thing. I mean to really understand what is available, what is there, what is good, right? Because often times I find first-year teachers grasping and doing what they can to make it work. (Discussion Session 1. April 14, 2016)

First year teacher educators may struggle to establish and maintain a successful online learning environment. To assist teacher candidates with providing appropriate online instruction to students with disabilities, it is important that emerging teachers have access to resources.

Determining goals for students with disabilities that are served in the online learning environment

> Before we start incorporating some ideas of creating online programs, we have to be very clear what would be the goal of an online program for kids with disabilities. It has to be really clear and then teacher education programs will respond. (Discussion Session 4. April 15, 2016)

As more students with disabilities enter the online learning environment, an overarching concern is that the field has not established clear outcomes for the students as they are being served in these settings. The issue brought forth in the discussion panel is a lack of clarity of goals of online learning for students with disabilities and if those learning outcomes should be any different from the outcome expectations for peers.

In an era of personalization, they wonder how both student-to-student and group achievement comparisons can be made. The teacher educators suggested that clear goals would be beneficial in guiding the development of innovative and responsive teacher candidate preparation programs.

Increasing explicit instruction to prepare pre-service teachers to serve students with disabilities in the online learning environment

> I think if we are going to prepare special education teachers to work in online environments for their students we need to have explicit instruction in that. Like, how would you do that? We talked about our students and that is what they would need too. (Discussion Session 2. April 14, 2016)

This excerpt from the discussion shows just how crucial the participants viewed providing comprehensive instruction to teacher candidates on how to best serve students with disabilities in the online learning environment. The challenge of serving students with disabilities in an online environment calls for teacher candidates to have sources of current, reliable information.

This challenge, applies to teacher educators as well. The professionals charged with preparing teacher candidates need access to current research to use in designing courses that best prepare teacher candidates for their roles in providing services to students with disabilities in the online learning environment.

CONCLUSION

Online education opportunities are rapidly expanding under the promise that they will provide alternatives to traditional brick-and-mortar educational settings. For many students, the hope is that an online educational experience will provide a more personalized approach that allows students and parents greater controls over instructional activities, pace, schedule, and materials.

While the potential exists for online education to address challenges students have historically have encountered, there are still many barriers to quality education for all students online. Students with disabilities are regarded as particularly vulnerable and therefore, they need advocates. The group of people perhaps best positions to be these advocates are teachers because many of the legal safeguards for students with disabilities are built around getting students access to qualified teachers who can provide sound instruction.

The purpose of this report was to report findings from a series of discussion panels and a short survey with nine teacher educators who had responsibilities for preparing special education teachers. These teacher educators reported on the efforts they were making to include the online learning context as a viable setting for educating children with disabilities.

The teacher educators agreed that teacher education as a field and special education teacher preparation within that field would benefit from engaging in greater efforts to prepare special education teachers to perform in online settings, but they also indicated that multiple roadblocks existed.

Challenges include a lack of structures and processes for instituting this kind of preparation in their institutions, a lack of a solid research base around best practices that limited their ability to advocate for increased attention to this preparation, and also a lack of prioritization for teacher preparation.

In addition, they identified a lack of consensus as to how disability laws (e.g., IDEA, Section 540) apply to online settings. This latter point touches on state departments of education's limited policy and guidance regarding how protections and due process procedures apply.

Moving forward, the teacher educators agreed that online instruction is an increasingly important venue for student education and that the landscape of practice is shifting much faster than

institutional responses in state departments and colleges.

Policy shifts around the importance of policy clarity regarding ways to promote the inclusion of students with disabilities, and models of good practice are needed. Further, a more substantial research base about how online learning for students with disabilities and online teaching for special education teachers operate will be essential for program planning.

Finally, a clearer policy picture regarding the application of disability to online settings should be a goal for helping teacher educators prepare teachers who can provide an optimal educational experience to all of their students, including those with disabilities.

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