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Perceptions of Special Education Services Delivered Through Online Learning Environments During COVID-19

Elementary and secondary schools saw a major shift in how instruction was delivered during the COVID-19 pandemic. Schools across the United States shut down or participated in online learning. This shift to online learning led many to question how special education services should be delivered to students with disabilities. The purpose of this study was to gauge perceptions of special education services delivered in a remote learning environment during a public health crisis. Teachers and parents of students with disabilities ($n = 108$) from across the United States were surveyed. Results showed synchronous online learning to be the most prevalent form of providing special education services. However, participants largely viewed online instruction as ineffective at providing quality services for students with disabilities. Implications for improving online services for students with disabilities could include identifying specific reasons for participants' negative views which may lead to more actionable steps in improving online learning moving forward. In addition, examining actions taken by schools that have led to positive impressions of online learning among parents and educators could also be used to improve perceptions of online instruction for students with disabilities. Directions for future research are also discussed.

Keywords: COVID, disability, online learning, distance learning, special education, pandemic

INTRODUCTION

The COVID-19 pandemic caused governments worldwide to shift students' formal education to online or remote learning environments during the 2020 school year. This sudden change in student learning impacted all education parties (e.g., parents, teachers, students, and administrators). Online instruction is delivered in two main ways: (a) synchronous online instruction delivered in real-time through video teleconferencing platforms, or (b) asynchronous online instruction delivered through recorded material that can be watched at a later time (Coy et al., 2014). Parents and teachers have reported being in favor of online teaching but feeling ill-prepared to assist children with disabilities to succeed (Bicen et al., 2018; Marteney & Bernadowski, 2016; Smith et al., 2016).

The main interventions that Smith and Tyler (2010) used for students with disabilities are the pull-out model, the push-in model, and services at home. The pull-out model of instruction is where a student is removed from the general education classroom to receive specially designed instruction in another setting, like a support class or a resource area. The push-in model is where the student is kept in the classroom where they receive the same instructions as their peers and is the most effective of the models. But those two models are hard to replicate online, unlike

services at home, which are provided when a student cannot come to school for a variety of reasons and are taught through a personal visit or through online instruction (Smith & Tyler, 2010).

To accomplish the feat of providing a free and appropriate public education and to educate in the least restrictive environment; a law was created, titled the Individuals with Disabilities Education Act (IDEA), with the purpose to have guidelines for students with disabilities to receive appropriate special education services (IDEA, 2010). Even with IDEA accommodations, interpreting guidelines for students with disabilities in an online instructional context can be difficult (Burdette et al., 2013). Thus, the purpose of this study was to explore teachers and parents of students with disabilities' perceptions of delivering quality special education services in an online learning environment. This was done by gauging the quality of services for students with disabilities by those who provided special education services during the COVID-19 crisis in US public schools. This study will address the following research questions: 1) How are special education services provided in an online learning environment? 2) How does the quality of online instruction received by students with disabilities compare with face-to-face instruction?

There are many aspects of educational services that are listed in IDEA (2004), and we have consolidated them to 1) assessment of disability and need for services, 2) planning individualized goals and services, and 3) transition planning and services. IDEA (2004) requires schools to assess any students who may have an educational disability. Then an individualized educational plan (IEP) is developed for each student eligible for special education services by a team of education specialists. The IEP includes the student's academic progress, how the disability affects education, and academic and functional life goals through specially designed instruction. After planning the IEP, transition services are meant to improve the academic and functional capabilities of the student, including, community experiences, employment, and daily living skills. These are best taught through authentic learning experiences led by student interests and goals (Kohler & Field, 2003).

METHOD

Participants

Participants included special education teachers, paraprofessionals, and parents of students with disabilities. Individuals must have worked in a US public school or had a child with an active IEP enrolled in a school during the 2019–2020 school year in order to be eligible to participate. Participants were recruited electronically through Facebook and email groups using snowball sampling. A message explaining the purpose of and a link to the survey was posted in 15 relevant online groups. Other potential participants were sent an email one time without any follow-up.

A total of 108 participants completed at least half of the survey. The majority of participants were female ($n=106$) and of white ethnicity ($n=94$). Teachers (i.e., licensed special education teachers, paraprofessionals, and transition coordinators) made up the majority of participants ($n=81$). The level of a child's disability was mostly moderate ($n=12$), mild level of disability ($n=3$), and severe level of disability

reported ($n=4$). However, the exact disability and type were not asked in this study. We assume that the disabilities are all-inclusive and there are a variety that you would encounter in schools. Teachers answered questions about their training, school site, and work experience. The majority of teachers workers in elementary schools, grades K-5 ($n=44$). Fifty-four teachers (66.7%) reported they received their initial training in special education.

Data Collection & Analysis

A survey was used to collect the data, it included demographic information and Likert scale items were used where appropriate. The survey was piloted by six individuals (teachers, parents, etc.) before the final version was made available to participants. Pilot study participants were able to indicate problems with how the survey was delivered and questions that were unclear or confusing; and this feedback was applied by the researchers to improve the final survey. Pilot study data were not included in the official survey results.

The survey was distributed online through Qualtrics during school closures at the end of the 2019–2020 school year. A link to the survey was provided during the recruitment process. Once an individual was connected to the survey, they were presented with a consent form. Individuals were able to discontinue their participation in the survey at any time. Data were imported into SPSS (Version 26) to be cleaned. Participants who did not answer at least 50% of the survey questions were excluded. First, descriptive analyses were run to summarize participant demographic information. Then, responses from each individual group (i.e., parents and teachers) were analyzed to compute basic descriptive statistics and the frequency of response choices for each item.

Results

In the first question, participants were asked what services were delivered during online learning. For parents, results showed synchronous online to be the most common ($n=9$; 47.4%). With other types of learning as follows: asynchronous learning ($n=4$; 21.1%), educational games ($n=5$; 26.3%), whole class teacher-created modules ($n=4$; 21.1%), individualized teacher-created modules ($n=2$; 10.5%), consultation with a teacher ($n=4$; 21.1%), programs from third-party vendors ($n=1$; 5.3%) and some said that no services were provided ($n=5$; 26.3%). Teacher results also showed synchronous online learning to be the most common ($n=57$; 70.4%), and one participant (1.2%) stated that services were not provided. Other methods for included asynchronous online learning ($n=43$; 53.1%), whole class self-created modules ($n=31$; 38.3%), individualized self-created modules ($n=46$; 56.8%), educational games ($n=29$; 35.8%), consultation with a general education teacher ($n=27$; 33.3%), programs by third-party vendors ($n=25$; 30.9%), and other ($n=6$; 7.4%).

The second set of questions measured the quality of instruction received by students with disabilities via online learning compared to face-to-face instruction. The first of these questions examined student work and IEP goal progress, and parent responses had an overall mean of 2.3 ($SD=1.4$), with a range of 1–5 on the first

three questions and 1–4 on the fourth. Parents were also asked two questions about teacher support and reported an overall mean of 2.3 ($SD=1.5$) with a range of 1–5. Parents were asked about the quality of transition planning and services for their child with a mean of 2.2 ($SD=1.4$) and a range of 1–5. Finally, parents were asked about their child needing remediation of instruction with a mean of 3.7 ($SD=1.6$) with a range of 1–5. The questions for teachers examined IEP goal progress, accommodations, and individualized instruction with a mean of 2.0 ($SD=1.2$) and a range of 1–4 on the first question and 1–5 on the other two questions. Three questions examined student work progress with a mean of 1.7 ($SD=0.9$) and a range of 1–4. Teachers were also asked similar questions, shown in Table 1.

TABLE 1 RESULTS OF TEACHER RESPONSES ABOUT QUALITY INSTRUCTION

	Severely disabled		Mildly disabled		Non disabled	
	already used	would like to use	already used	would like to use	already used	would like to use
Communicate with the doctor by email** (n=1491)	8,1	35,1	20,7	32,3	25,6	41,9
Sharing pictures with the doctor through digital channels** (n=1492)	1,4	28,4	9,6	29,3	8,4	43,5
Having a teleconsultation with your doctor (Skype or video consultation)* (n=1490)	0	39,7	4,5	38,4	4,6	51,1
Share health documentation electronically with the doctor** (n=1493)	10,8	40,5	18,6	33,7	19,6	51,3
Monitoring changes in health status with a smartphone* (n=1491)	2,7	43,8	4,5	32,3	1,7	43,1
Using health sensors at home* (n=1492)	14,9	36,5	18,7	38,4	12,5	48,9
Browse websites for authentic medical information* (n=1492)	10,8	36,5	16,6	39,7	16,2	49,5
Making appointments with the doctor online** (n=1491)	19,2	34,2	25,3	33,3	31,1	48,6
Having the doctor recommend an application, sensor, etc.* (n=1491)	1,4	39,7	4	45,5	2,8	55,3

Participants were also asked to rate how difficult it was for students to learn various skills and subject matter, from common academic areas (e.g., reading, writing, math) to specialized skills (e.g., motor skills, speech, behavior/emotional learning). A Likert-type scale was used ranging from 1 (*extremely difficult*) to 5 (*extremely easier*). Parents rated social skills ($n=9$; 50.0%), writing ($n=10$; 58.8%), reading ($n=9$; 50.0%), and behavior/emotional learning ($n=13$; 72.2%) as extremely difficult. Teachers rated social skills ($n=49$; 63.6%), writing ($n=45$; 58.4%), and behavior/emotional learning ($n=51$; 67.1%) as extremely difficult. Only six responses across four items (i.e., assistive technology, social studies, social skills, and behavior/emotional learning) received a single rating as either slightly or extremely easier. The third set of questions was measuring the validity of online instruction for special education services among parents and teachers using the same 5-point Likert scale. The first question said,

“my child seemed to enjoy school more through online instruction,” had a mean of 2.6 (SD=1.6), with a range of 1–5. The second question, which read “my child frequently complained to me about doing school (i.e., learning and/or completing assignments) online,” had a mean of 3.6 (SD=1.6) and a range of 1–5. The third question, which stated “I prefer online instruction over face-to-face instruction,” had a mean of 2.3 (SD =1.5) and a range of 1–5.

Likewise, teachers answered three related questions. The first was about student engagement had a mean of 1.8 (SD=0.9), with a range of 1–5. The second question was “approximately 50% or more of my students complained to me about learning and/or completing assignments online,” had a mean of 3.4 (SD =1.3) and a range of 1–5. The third question stated, “I prefer online instruction over face-to-face instruction,” and had a mean of 1.7 (SD=1.0) and a range of 1–5. Teachers were asked how online instruction has impacted job satisfaction and it ranged from significantly worse (1) to significantly better (5). The next question stated, “how would you rate overall job satisfaction during online instruction compared to face-to-face instruction?” with a mean of 1.9 (SD=1.0), and a range of 1–5. Participants were then asked, “if schools moved to online instruction (either 100% or blended) in the future, would you keep teaching?” This was a “yes” or “no” question. Teachers responded with a mean of 1.3 (SD=0.5), with 54 responding “yes” and 26 “no.”

DISCUSSION

Our first finding was that teachers prefer delivering instruction in real time over presenting pre-recorded material to their students. This may reflect their perceptions of educational design efficacy or their level of preparedness for using online technology to teach special education (Bicen et al., 2018; Smith et al., 2016). Perhaps the most surprising result from the first research question was that five parents (22.7%) reported that services were not provided at all during school closures. Answers to the second research question spanned from strongly disagree to strongly agree. Most parents strongly disagreed with all questions except they strongly agreed that their child would need remediation following online instruction. The final part of the second research question sheds light on the impact that the job role plays in views of quality instruction through online learning by asking participants to rate the level of difficulty to teach or for students to learn various skills. The majority of participants said difficult for most subjects.

LIMITATIONS

The first limitation of this study was that the overall sample size was 108 participants that come from multiple states across the US but did not have much diversity which makes it hard to generalize to other groups. Second, barriers to delivering services were not addressed; therefore, the study does not build upon previous research that may guide professionals to specific courses of action. Third, this study only used results from descriptive analyses, therefore, relationships between demographic data and survey responses were not analyzed. Finally, this survey did not go through

a validation process. There may have been questions that participants felt were confusion after reading. This could have led participants to answer questions in a way that was different than intended. One example of this is that disabilities were not defined and were left to the participants interpretation because the focus was more on remote services and not on the specific disabilities, but this is an area that can be researched further.

IMPLICATIONS FOR FUTURE RESEARCH

A few areas warrant further research. First, it would be valuable for researchers to target a larger representative sample in order to learn about more groups and compare data. Another area of research could be identifying specific reasons for parents and teachers not agreeing with online instruction views would add to the body of literature and could lead to more actionable steps. Future studies should consolidate and unify questions across all participant groups to make responses easier to interpret. This would make it possible to run inferential statistical analyses to examine relationships among participant groups. A shorter and more concise survey may also lead to more participant responses, as this survey saw nearly 100 potential participants start the survey but ultimately not finish.

CONCLUSION

The COVID-19 pandemic made schools utilize different methods for providing quality instruction to students with disabilities. The shift to online learning left many to question the quality of special education services through such an instructional medium. This study evaluated how special education services were delivered online during a public health crisis and the extent to which online instruction has impacted the quality of instruction. Results showed synchronous online learning was the popular form of providing special education services. The majority of all participant groups viewed online instruction to be ineffective at providing quality instruction for students with disabilities. More research needs to be done to explore barriers that make online instruction ineffective at providing quality instruction and to explore whether the perceptions in this survey persist across diverse populations.

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