SPECIAL EDUCATION TEACHER EXPERIENCES AND EFFICACY DURING A PANDEMIC (COVID-19)

by

Raina Williams

Copyright © Raina Williams 2020

A Thesis Submitted to the Faculty of the DEPARTMENT OF EDUCATIONAL PSYCHOLOGY

In Partial Fulfillment of the Requirements For the Degree of MASTER OF ARTS

In the Graduate College

THE UNIVERSITY OF ARIZONA

2020
As members of the Master’s Committee, we certify that we have read the thesis prepared by: Raina Williams
titled: SPECIAL EDUCATION TEACHER EXPERIENCES AND EFFICACY DURING A PANDEMIC (COVID-19)
and recommend that it be accepted as fulfilling the thesis requirement for the Master’s Degree.

Elizabeth J Pope
Date: Jan 7, 2021

Mary M Mccaslin
Date: Jan 8, 2021

Heidi Burross
Date: Jan 7, 2021

Paul A Schutz
Date: Jan 7, 2021

Final approval and acceptance of this thesis is contingent upon the candidate’s submission of the final copies of the thesis to the Graduate College.

I hereby certify that I have read this thesis prepared under my direction and recommend that it be accepted as fulfilling the Master’s requirement.

Elizabeth J Pope
Date: Jan 7, 2021

Educational Psychology
Table of Contents

List of Figures ........................................................................................................... 6
List of Tables ............................................................................................................... 7
Abstract ...................................................................................................................... 8
Chapter 1: Introduction ............................................................................................. 9
  Purpose .................................................................................................................. 11
  Research Questions .............................................................................................. 12
  Significance of the Study ..................................................................................... 12
  Limitations of the Study ....................................................................................... 13
  Summary ............................................................................................................... 14
Chapter 2: Review of the Literature ...................................................................... 15
  Requirements for Special Education Teachers in Arizona ................................... 15
  Teacher Preparation Programs ............................................................................. 16
  New Demands for Teachers .................................................................................. 18
  Technology .......................................................................................................... 21
  Teacher Self-Efficacy ............................................................................................ 22
  Influences on Teacher Self-Efficacy ..................................................................... 23
  Teacher Burnout ................................................................................................... 26
  Summary ............................................................................................................... 28
Chapter 3: Methodology ........................................................................................ 32
  Research Questions .............................................................................................. 32
  Method .................................................................................................................. 32
  Quantitative Phase ............................................................................................... 33
Supports and Resources ................................................................. 63
Voice and Control ......................................................................... 65
Preparedness ................................................................................ 67
Self-efficacy .................................................................................. 69
Moving Forward ............................................................................ 70
Summary ....................................................................................... 72
Chapter 5: Discussion .................................................................. 75
Summary of Study .......................................................................... 75
Review of Findings ........................................................................ 76
  Research Question 1 ................................................................. 76
  Research Question 2 .................................................................. 77
  Research Question 3 .................................................................. 78
  Research Question 4 .................................................................. 79
  Research Question 5 .................................................................. 80
Implications ..................................................................................... 80
Recommendations for Future Research ....................................... 81
Conclusions ..................................................................................... 82
Appendices ..................................................................................... 84
  Appendix A: Survey Questions .................................................. 84
  Appendix B: Informed Consent Form for Phase One: Survey ......... 99
  Appendix C: Informed Consent Form for Phase Two: Interview .... 103
  Appendix D: Interview Procedures and Questions ....................... 108
References ..................................................................................... 114
List of Figures

Figure 1. Participant perceptions of having the supports and resources do teach and do their job

Figure 2. Participant perceptions of being provided helpful supports resources from their schools and school districts for adapting to the new e-learning demands beginning in the Spring 2020 semester

Figure 3. Participant perceptions of being provided opportunities to share thoughts and opinions with their schools and school districts during the pandemic

Figure 4. Participant perceptions of the control they had over their daily and weekly classroom routines before and during the pandemic

Figure 5. Participants’ perceptions of their self-efficacy before the pandemic

Figure 6. Participants’ perceptions of their self-efficacy after the pandemic

Figure 7. Participants’ confidence in their school providing them with supports moving forward

Figure 8. Participants’ confidence in their school addressing their concerns moving forward
List of Tables

Table 1. *Number of responses to communication statements by response choice* ..........43

Table 2. *Participants’ perceptions of preparedness in terms of teacher preparation programs and professional development opportunities* .................................................................50

Table 3. *Methods of technology used by participants before the pandemic* ...............57

Table 4. *How confident participants felt they could communicate with their schools and school* .....................................................................................................................................................61

Table 5. *Courses participants recalled taking during their teacher preparation programs*. ........................................................................................................................................................67
Abstract

In this study, special education teachers in Arizona provided responses to survey and interview questions about their experiences during the COVID-19 pandemic. Survey questions included topics such as: technology, communication with administrators, other teachers, students, and students’ parents, supports and resources, control over decisions being made, preparedness, teacher self-efficacy, and their plans moving forward. In the survey, on average, participants reported less clear and regular communication from their schools and districts during the pandemic than before. Survey participants reported having the resources they needed to teach before the pandemic more from their schools than their districts and during the pandemic reported having more from their districts rather than their schools. On average, participants felt good and effective at their job before the pandemic, and on average felt less good and less effective during the pandemic. Of the five interview participants, 80% felt they had the resources they needed to incorporate technology into their class before the pandemic and less than half reported not having all of the technological resources they needed during the pandemic. Four interview participants said that they felt they had opportunities to share their opinion regarding the pandemic, but they felt it wasn’t seriously considered for the final decision. Of the five special education teachers that participated in interviews, four of them said that transparency is the number one thing that they need moving forward. Implications for school administrators, administrators of teacher preparation programs, and special education teachers are discussed as well as recommendations for future research.

Keywords: COVID-19, pandemic, special education, special education teachers, educational supports and resources, technology, teacher self-efficacy, teacher burnout
Chapter 1: Introduction

The coronavirus (COVID-19) outbreak first began in December of 2019, but it wasn’t until March of 2020 that the World Health Organization (WHO) declared COVID-19 a global pandemic (WHO, 2020). At this time in Arizona there were just a handful of positive COVID-19 cases (Block, 2020). However, by the end of March, Arizona State Governor Doug Ducey and State Superintendent Kathy Hoffman announced that all public schools would be physically closed and remain online for the remainder of the semester (Cruz, 2020a).

Teacher preparation programs were not designed to prepare teachers for teaching remotely because the need for this preparation was not as high before the pandemic (Koenig, 2020), leaving all teachers unprepared for the possibility of teaching their students remotely (Turner et al., 2020; Garcia, 2020), some still struggling with basic technology skills months into the pandemic (Garcia, 2020). Teacher preparation programs have strict standards to become accredited (Sawchuk, 2013) in support of research that holding teacher-candidates to higher standards leads to better teachers and better outcomes for students (Boyd et al., 2008), but only 4.1% of teacher education programs across the United States reported offered a student teaching experience that was in an online environment (Archambault et al., 2016).

Teacher preparation programs for special education teacher candidates often implement the seven standards for initial special education teachers established by the Council for Exceptional Children (CEC) into their program (Mastropieri et al., 2017; CEC, n.d.) According to the CEC, a high quality teacher preparation program is one that provides plenty of opportunities for candidates to demonstrate pedagogical tools and
plenty of experiences in the core academic subject areas (CEC, n.d.). However, despite these efforts, nothing could have prepared teachers for the new demands they faced during the transition to online learning during the COVID-19 pandemic.

At the beginning of the pandemic, most all teachers in Arizona began using Zoom, an online video-conferencing platform, to meet with and provide e-lessons to most, if not all, of their students (Cruz, 2020a; Turner et al., 2020), and some used paper packets for students who had difficulties accessing online lessons (Cruz, 2020a; Cruz, 2020b; Tremmel et al., 2020; Turner et al., 2020). The technological demands that teachers faced increased as teachers adjusted their lesson plans to fit an online format (Cruz, 2020a; Cruz, 2020b; Cruz, 2020c; Turner et al., 2020). Special education teachers especially, had unique challenges as they were still required to maintain their students’ individual education plans (IEPs) and progress monitor the goals on their students’ IEPs virtually, now with the help of individualized packets and feedback from students’ parents or caregivers (Cruz, 2020b; Expect More Arizona, 2020; Tremmel et al., 2020; Turner et al., 2020).

It has been shown that the more teachers are exposed to technology, the higher their attitudes are for using technology in their classroom (Kan & Yel, 2019). When teachers had negative views about technology, their teacher self-efficacy, their beliefs about their abilities to plan, organize, and carry out instructional activities (Skaalvik & Skaalvik, 2010), was found to be negatively impacted (Kan & Yel, 2019). Teachers with higher teacher self-efficacy work harder, persist longer when faced with challenges, are less stressed (Bandura, 1997; Lohman, 2006), have greater self-esteem, perform better, have better instructional quality, and have fewer feelings of teacher burnout, a syndrome
of emotional exhaustion, depersonalization, and decreased personal accomplishment (Maslach et al., 1996; Kan & Yel, 2019; Friedman, 2000; Skaalvik, & Skaalvik, 2007; Woolfolk et al., 1990; Holzberger et al., 2013).

Teacher burnout is especially a high concern with special education teachers (Lee et al., 2011) as special education teachers are found to be more likely to leave the profession compared to general education teachers (Thornton et al., 2007; Boe & Cook, 2006). Self-efficacy for special education teachers specifically was found to be negatively affected by a lack of support from the school district, a lack of resources, and heavy workloads (Lee et al., 2011).

Research in the field of education is constantly increasing, especially in relation to special education, teacher preparedness, teacher self-efficacy, and teacher burnout. It is even more crucial now, during a global pandemic, to continue to research how prepared teachers feel they are, what supports and resources they need to feel prepared, how their self-efficacy has been influenced, and how their feelings of teacher burnout have been impacted. This study will address this new gap in the literature by examining how special education teachers in Arizona were impacted by the demands of the COVID-19 pandemic.

Purpose

The purpose of this study is to identify how special education teachers in Arizona have been impacted by the transition to online learning during the COVID-19 pandemic. This study aims to discover how teachers’ lives were changed during the pandemic. This study will evaluate how prepared special education teachers feel they were for the demands of e-learning, how special education teachers have dealt with these demands,
what supports and resources special education teachers received that were helpful as well as what resources and supports they feel they still need to continue to teach online, and how their self-efficacy beliefs and feelings of teacher burnout have been impacted during this transition.

**Research Questions**

This study aims to examine the experiences of special education teachers in Arizona to evaluate how they were affected by the COVID-19 pandemic. The research questions are:

1. How were special education teachers in Arizona impacted by the transition to online learning during the pandemic?
2. Did special education teachers in Arizona feel prepared and supported during the transition to online learning during the pandemic?
3. What supports and resources do special education teachers in Arizona need to continue to teach online during the pandemic?
4. How has the transition to online learning during the pandemic affected the self-efficacy beliefs of special education teachers in Arizona?
5. How has the transition to online learning during the pandemic contributed to the future career plans of special education teachers in Arizona?

**Significance of the Study**

Research on teachers and what influences teacher self-efficacy is ever increasing. An even newer and faster increasing body of research surrounds the COVID-19 pandemic, the new challenges it has brought for teachers, and how they are coping. There is a gap in the literature regarding how special education teachers in Arizona have been
affected by the COVID-19 pandemic. This study will contribute to the growing body of literature related to how special education teachers in Arizona have been impacted by the transition to online learning during the pandemic by evaluating how special education teachers in Arizona feel about: their level of preparedness for teaching in general and using technology in the classroom, the professional development opportunities they had, the technological supports and resources they had, their teacher self-efficacy, and feelings of teacher burnout before and after the pandemic. The results of this study could possibly be used to guide the future of teacher preparation programs and professional development opportunities offered to teachers in regards to preparation for online learning, inform school districts and administrators of what supports and resources special education teachers needed and feel they still need to continue teaching remotely, as well as evaluate how the changes brought by the transition to online learning during the pandemic have affected special education teachers’ self-efficacy and teacher burnout beliefs.

Limitations of the Study

There are several limitations to this study. First, there was a time constraint on the study allowing for only a few months of data collection. Second, due to the time constraint on the study, the sample size of the study is small. Third, due to the small sample size there is very little ethnic/racial diversity in the sample. A total of three ethnicities (White/Caucasian, Mixed, and Hispanic/Latinx) were identified in this study, not accounting for any individuals from many other ethnicities. Additionally, because of the small sample size, there is a lack of generalizability to all special education teachers in Arizona. This study is limited in reliability because the interviews were conducted and transcribed by me, so were no opportunities for inter-rater reliability measures and
because the data was coded by only one coder also. There is limited research in this area as the COVID-19 pandemic is new and continually changing, presenting a lack of prior research as another limitation of the study. Additionally, most participants recruited were known personally by me so this study may have an unusually high response rate that cannot be replicated in future studies. Lastly, when collecting experiences and feelings from participants through surveys and interviews, there is always a plausibility that participants may provide responses that were not totally true in order to be viewed as more socially acceptable.

Summary

Special education teachers have been impacted tremendously by the transition to online learning during the COVID-19 pandemic. Special education teachers are at a higher risk for teacher burnout and leaving the profession compared to general education teachers (Thornton et al., 2007; Boe & Cook, 2006), possibly because special education teachers have different work demands that require them to do extra paperwork and additional record keeping (Lee et al., 2011). Due to the pandemic, these demands were multiplied as special education teachers were still required to maintain students’ IEPs and progress monitor their students’ IEP goals over the computer (Expect More Arizona, 2020; Tremmel et al., 2020). Research on special education teachers in Arizona during the pandemic is crucial to understanding what these teachers experienced, informing school administrators as to what supports and resources special education teachers feel they need to teach remotely, and gaining knowledge about how teacher self-efficacy and feelings of teacher burnout have been influenced by the transition to online learning during the COVID-19 pandemic.
Chapter 2: Review of the Literature

Special Education Teacher Requirements in Arizona

All teachers, including special education teachers in Arizona are required to have a bachelor’s degree. In addition, they are required to attend an educator preparation program. As the Arizona Department of Education [ADE], describes on their website, there are three pathways a future educator can take to completing their educator preparation program. The first pathway is a traditional bachelor’s degree educator preparation program through an accredited institution. This program would require a 12-week student teaching experience and result in a bachelor’s degree leading to a teaching certificate for the new teacher (ADE, n.d.).

The second pathway is a traditional or alternative post-baccalaureate educator preparation program through an accredited institution. This pathway is for future teachers who have already completed a bachelor’s degree. This program can either include a culminating capstone 12-week student teaching experience or be completed while simultaneously being employed as a full-time teacher in Arizona and also leads to a teaching certificate (ADE, n.d.)

The last pathway is for future teachers who have a bachelor’s degree and want to enroll in an educator preparation program that has been approved by the Arizona State Board. This pathway also allows for teachers to complete the program while being employed as a full-time teacher in Arizona with an alternative teaching certificate (ADE, n.d.). In addition to completing the teacher preparation program, prospective teachers must pass all Arizona Educator Proficiency Assessment (AEPA) exams required for the teaching certificate they are seeking.
Special education teachers are required to attend a teacher preparation program that is specific to the area of special education that they wish to pursue: mild/moderate disabilities, moderate/severe disabilities, hearing impairment, or visual impairment (ADE, 2018). Alternatively, years of verified teaching experience in that specific field and the completion of courses described under Arizona Administrative Code R7-2-602 can be used in place of completion of a teacher preparation program in that field (ADE, 2018).

**Teacher Preparation Programs**

Teacher preparation programs are designed to prepare teachers for everything they should encounter during their first years as a teacher. Requirements for teacher preparation programs to become accredited became stricter when the Council for Accreditation of Educator Preparation (CAEP) implemented new standards. These standards included categories such as: ensuring to prepare teachers with content knowledge and appropriate pedagogical tools, requirements to partner with districts to ensure quality feedback and practice during student-teacher partnerships and demonstrating that teacher graduates are successful in improving academic achievement in students, preschool-12th grade (Sawchuk, 2013).

These new standards included encouraging institutions to increase their minimum GPA requirement to at least a 3.0 for teacher candidates to enroll. Institutions with open-enrollment policies would no longer be accredited under these new standards (Sawchuk, 2013). Preparation programs would now be assessed on the evidence they bring forward to meet each standard. These changes were thought to be challenging to some members on the panel for the CAEP and leaders of educator preparation programs. However, for
some it was thought to be an opportunity to provide the best for all preschool through twelfth grade students. Holding teacher-candidates to higher standards would potentially lead to better teachers and better outcomes for students (Boyd et al., 2008).

A study by Brownwell et al., (2005) found that special education teacher preparation programs and general education teacher programs have shared features. They found that both exemplary general education teacher preparation programs and programs for special education teachers are labor intensive, focused on connecting theory to practice, collaborative, and stressed the importance of extensive and well-planned and well-supervised experiences in the field (Brownwell et al., 2005). The Council for Exceptional Children (CEC) has seven standards for beginning special education teachers that are frequently used or implemented in teacher preparation programs (Mastropieri et al., 2017; CEC, n.d.) These standards are: 1) learner development and individual learning differences, 2) learning environments, 3) curricular content knowledge, 4) assessment, 5) instructional planning and strategies, 6) professional learning and ethical practice and 7) collaboration (CEC, n.d.). According to the CEC, the standards for initial special education teachers define what a special education teaching candidate should be able to do to begin teaching and a high quality teacher preparation program would provide ample opportunities for candidates to demonstrate pedagogical tools and plenty of experiences in core academic subject areas (CEC, n.d.).

A few of the sub-components of the categories include ensuring beginning special education teachers are prepared to: a) understand and use both general and specialized curricular content knowledge for teaching across content areas to diverse students, b) use technologies to support instructional assessment, planning, and delivery for students with
disabilities, c) and use the theory and elements of effective collaboration in practice (CEC, n.d.). Some special education teacher preparation programs follow a cohort model. Mastropieri et al., (2008) reviewed studies examining special education teacher preparation programs using a cohort model and found that programs using a cohort model showed an increase in social-emotional support between teacher candidates, improved collaboration skills, academic growth, and a greater sense of community among candidates.

**New Demands for Teachers**

The coronavirus (COVID-19) outbreak began in December of 2019, but the World Health Organization (WHO) declared COVID-19 a global pandemic in March of 2020 (WHO, 2020). The first confirmed case of COVID-19 in Arizona was in January of 2020, but it was in March of 2020 that Arizona state governor Doug Ducey signed an executive order announcing a state of emergency in Arizona warning about the possible impact of the pandemic. At that time there were still under ten confirmed cases of COVID-19 (Block, 2020). On March 15th, grade school students and college students all throughout the state were told to stay home and finish out the academic year online, as school campuses closed due to the potential spread of the virus (Block, 2020; Cruz, 2020a). On March 30th, at the beginning of online learning in Arizona, Governor Doug Ducey and State Superintendent Kathy Hoffman announced that public schools would be closed for the remainder of the semester (Cruz, 2020a).

Despite the efforts to make educator preparation programs more comprehensive and effective for future teachers, it was impossible for anyone to predict the COVID-19 pandemic and what new challenges and demands it would bring for teachers and students
during the end of the Spring 2020 semester and beyond. All teachers, including special education teachers, were not prepared for the expectation of teaching their students remotely. While teacher preparation programs prepare special education teachers for uses of technology within the classroom, teachers were unprepared for the possibility of teaching their students and providing services for their students remotely (Turner et al., 2020; Garcia, 2020). One middle school teacher in Phoenix, Arizona said that many of his fellow teachers had never really prepared for remote teaching and are still struggling with basic technology (Garcia, 2020). For a high school teacher in Tucson, Arizona, the transition to online teaching was also abrupt despite her students already being familiar with and using laptops on a daily basis in class (Cruz, 2020c). Teacher preparation programs were not designed to prepare teachers for teaching students remotely because there was not as high of a need for this preparation before the pandemic (Koenig, 2020). A 2016 study that surveyed teacher education programs across the United States showed that only 4.1% of schools surveyed offered a student teaching experience that was in an online environment (Archambault et al., 2016). One of the recommendations in the U.S. Department of Education’s 2017 National Education Technology Plan was to work on developing a teaching force that is skilled in online and blended instruction (Koenig, 2020).

Similarly, school districts were unprepared for the possibility of delivering instruction remotely and were forced to act quickly (Lieberman, 2020b). In many districts, remote learning began with paper packets while leaders built a remote learning plan (Turner et al., 2020). Districts had to scramble to get technology experts in to train teachers to be prepared to move their lessons online (Lieberman, 2020a). Teachers met
with each other and their schools to discuss what their plans were for providing instruction for their students (Cruz, 2020a; Cruz, 2020b).

In late March of 2020, some teachers began teaching their students remotely, using Zoom, an audio- and video-conferencing platform and providing e-lessons online for students using district and school websites and platforms (Cruz, 2020a). Zoom was an ideal tool because it can be used on mobile devices, laptops, and desktops and includes features like a chat, screen sharing, a virtual whiteboard, breakout rooms, and polling, making it helpful in online learning (OECD, 2020). The basic plan on Zoom is free and allows for meetings up to 40 minutes long between two or more people. Due to the pandemic, Zoom removed the 40-minute time limitation on meetings for primary and secondary schools using the basic plan to avoid the districts from having to purchase a paid subscription for the service (OECD, 2020).

Some districts implemented a hybrid model of teaching where teachers taught half of their students online and the other half in the classroom, sometimes at the same time (Turner et al., 2020). This was done to limit the number of students in the classroom at once, in hopes of potentially lowering the spread of COVID-19 (Turner et al., 2020). For students who could not attend classes online, some due to internet or technological issues, packets were prepared by schools and districts and teachers and made available to students (Cruz et al., 2020a; Cruz et al. 2020b). Packets were sent to special education students by their teachers and additional service providers to continue providing special education services to students like speech and occupational therapy (Cruz, 2020b). Some special education teachers with students with more significant needs found that online teaching was challenging because some of their students cannot type or use technology
independently, while other special education teachers found that some of the differences of online learning are actually helping them provide services to their students in different ways (Turner et al., 2020). Teachers are reporting that teaching online is just as tiring as teaching in-person (Turner et al., 2020; Cruz, 2020a; Garcia, 2020). A high school teacher in Tucson, Arizona describes how before the pandemic, teachers were notorious for working past typical school hours, but during the pandemic it’s different because before there were transitions in the day from working at school to working at home but now it’s like you’re working at home all day (Cruz, 2020c).

Technology

The COVID-19 pandemic increased the technological demands that teachers faced on a day-to-day basis. Teachers began teaching their students through a computer and had to adjust their lesson plans accordingly (Cruz, 2020a; Cruz, 2020b; Cruz, 2020c; Turner et al., 2020). They had to learn how to use new technological tools for themselves and their students. It has been shown by Kan and Yel (2019) that the more a teacher is familiarized with technology, the more positive their attitudes are for using technology in instruction. In this study, teacher candidates who owned their own computers, compared to those who didn’t, were found to have more positive attitudes towards using technology in instruction and candidates who were on a computer for longer periods of time during the day were also found to report more positive feelings towards technology (Kan & Yel, 2019).

Special education teachers faced unique challenges with technology because some of their students with more significant needs cannot independently type or use a computer (Turner et al., 2020). It is estimated that 13% of public school students receive special
education services in the United States (NCES, 2020). All students receiving special
education services had to have remote work modified for their individual needs and goals
(Tremmel et al., 2020). Teachers provided individualized learning packets for their
students based on their needs and goals and found ways to distribute them to students
(Tremmel et al., 2020; Turner et al., 2020; Cruz, 2020b; Expect More Arizona, 2020).
Special education teachers were still required to maintain students’ individual education
plans (IEPs) and progress monitor their students’ IEP goals virtually (Expect More
Arizona, 2020; Tremmel et al., 2020). Teachers completed progress monitoring with
goal-specific packets sent home to students and with the help of the students’ parents or
caregivers (Tremmel et al., 2020). Meetings to discuss students’ IEPs were held via
Zoom or phone call for parents and other service providers and teachers to attend
(Tremmel et al., 2020; Turner et al., 2020; Cruz, 2020b).

Teacher self-efficacy was found to be affected by their views of technology (Kan
& Yel, 2019). The ability to keep up with changing conditions was found to be the most
held opinion among teachers as to what makes them adequate teachers. When teachers
had negative feelings towards technology in the classroom, they had low self-esteem and
low self-efficacy (Kan & Yel, 2019). With the increase in technological demands while
teaching remotely during the pandemic, teachers are facing more threats to their self-
efficacy beliefs.

**Teacher Self-Efficacy**

According to Bandura (1994), self-efficacy beliefs affect what a person thinks of
themselves, how they feel, and how they will be motivated in different situations.
Teacher self-efficacy is defined as the extent to which a teacher is confident in their
ability to promote students’ learning (Bandura, 1994). It is also conceptualized as a teacher’s belief that they can have a positive effect on their students’ learning (Woolfolk et al., 1990). According to Skaalvik and Skaalvik (2010), it is thought of as an individual teacher’s beliefs about their abilities to plan, organize, and carry out the instructional activities that are required to reach educational goals. These beliefs include how well a teacher feels they plan and provide instruction for their students, meet the needs of their students, compare to and collaborate with other teachers, communicate with students’ parents, manage students, maintain discipline and answer students’ questions, and overall, how good they feel they are at their job (Skaalvik & Skaalvik, 2010).

Additionally, teacher self-efficacy is thought to be characterized by teachers feeling they are confident they can teach even difficult students all relevant content knowledge, maintain positive relationships with students’ parents, maintain composure if interrupted while teaching, have positive influence on the personal and academic development of their students, develop creative ways to cope with constraints such as budget cuts, and motivate students to participate in innovative activities (Schwarzer & Hallum, 2008).

**Influences on Teacher Self-Efficacy**

Similar to self-efficacy, the most influential source of the development of teacher self-efficacy is mastery experiences (Bandura, 1977; Bandura, 1997). These experiences include a teacher’s past experiences with success and failure in the classroom with their students given a certain topic or activity and their students’ achievement (Ross, 1998). These experiences shape a teacher’s self-efficacy because they shape how capable that teacher feels they are at being a teacher. The more successful mastery experiences a teacher has about a task, the higher their self-efficacy regarding that task will be.
(Bandura, 1977; Bandura, 1997). Thus, it is important for teachers to have opportunities to engage with and be successful using, for example, technology in the classroom in order to develop high self-efficacy beliefs regarding technology (Kan & Yel, 2019).

The second most influential source of self-efficacy development is vicarious experiences. Vicarious experiences occur when an individual observes someone, a model, in their environment doing something. For teachers, these experiences include observing other teachers or educational professionals in other classrooms with students, in their classroom, during professional development, or other collaboration opportunities with colleagues (Ross, 1998). Teachers gain a lot of valuable information from watching other teachers; they observe them try a task, note how they tried it and determine whether they are successful or unsuccessful. These experiences inform that teacher of what they should be doing, how they should be doing it, and influence whether or not they feel they are capable of doing that (Bandura, 1977; Bandura, 1997; Ross, 1998). Therefore, it is also important for teachers to have opportunities to observe other teachers engaging with and being successful using, for example, technology in the classroom to develop high self-efficacy beliefs about technology (Kan & Yel, 2019).

According to social cognitive theory, an individual with higher self-efficacy believes that they are more capable of completing an activity compared to an individual with lower self-efficacy (Bandura, 1997). High teacher self-efficacy is important because it leads to greater self-esteem, is shown to improve teacher performance, and is shown to lead to lower levels of teacher burnout (Kan & Yel, 2019; Friedman, 2000). According to a study by Skaalvik and Skaalvik (2010), teacher self-efficacy is strongly related to teachers’ relationships with their students’ parents. They found that when a teacher
experiences feeling like they are not trusted or liked by their students’ parents, or that when cooperating with a student’s parents was difficult, it reduced the teacher’s self-efficacy beliefs (Skaalvik & Skaalvik, 2010).

Teachers with higher self-efficacy are shown to set higher learning goals for their students (Ross, 1998), show effective classroom management and encourage student autonomy (Woolfolk et al., 1990). A teacher with high self-efficacy will work harder, be more involved in the learning process, persist longer when faced with challenges and be less stressed (Bandura, 1997; Lohman, 2006). Teachers with higher self-efficacy have been shown to have higher instructional quality (Woolfolk et al., 1990; Holzberger et al., 2013). Teachers with higher self-efficacy have also been shown to have students with higher motivation and achievement (Mojavezi & Tamiz, 2012). An individual with low self-efficacy is more likely to dwell on their deficiencies, magnify the possibility of threats, and resort to avoidant coping mechanisms that lead them to experience more stress (Bandura, 1997).

A study by Adebomi et al., (2012) evaluated the self-efficacy beliefs of special education teachers and found that job satisfaction of special education teachers was significantly positively related to teacher self-efficacy and that these two factors were found to have a high effect on job commitment. These researchers concluded that a special education teacher with high self-efficacy will try all instructional approaches for their students to ensure that they learn adequately (Adebomi et al., 2012). Lack of support from the school or district, lack of resources, including curriculum, supplies, and technology, and heavy workloads were all found to negatively affect special education teachers’ self-efficacy beliefs (Lee et al., 2011).
**Teacher Burnout**

Teacher burnout is defined as a syndrome of emotional exhaustion, depersonalization, and decreased personal accomplishment (Maslach et al., 1996). Teacher burnout has often been thought of as the result of a teacher coping with stress ineffectively over a long time (Skaalvik & Skaalvik, 2010). Self-efficacy beliefs are based heavily on experiences, so it is reasonable that these experiences can contribute to emotional exhaustion, and therefore negatively affect teacher burnout. A study by Schwarzer and Hallum (2008) found that teacher self-efficacy predicted the level of stress that teacher had in their job which predicted their likelihood of teacher burnout. This study showed a stronger relationship from earlier self-efficacy to later teacher burnout than earlier teacher burnout to later self-efficacy, meaning that low self-efficacy beliefs more often precede feelings of teacher burnout (Schwarzer & Hallum, 2008). A teacher having a low amount of successful mastery experiences can be especially stressful, because they often are accompanied by expectations of disciplinary problems and lower student performance, and possible conflicts with the school and the student’s parents. These expectations on teachers can cause them to doubt themselves as teachers and can contribute to teachers elevated emotional exhaustion and depersonalization (Skaalvik & Skaalvik, 2007).

Exhaustion has been identified as the most salient result of the stress from job demands and feelings of decreased accomplishment at work (Friedman, 2000). Skaalvik & Skaalvik (2010) analyzed emotional exhaustion and depersonalization, as they considered them to be the two central elements of teacher burnout. They found that both elements were negatively related to teacher self-efficacy. Depersonalization, described as
teachers not caring about some students, was more strongly related to the teacher’s relationship with the students’ parents. Emotional exhaustion was strongly related to time pressure that teachers face, defined in this study as: the feeling of having a heavy workload, having to prepare for instruction in the evenings and weekends, and having a hectic school day with little to no time for rest and recovery (Skaalvik & Skaalvik, 2010). Teacher self-efficacy was shown to have a strong negative relationship with teacher burnout (Skaalvik & Skaalvik, 2007). The higher a teacher’s self-efficacy beliefs, the lower their feelings of teacher burnout.

Teacher burnout often results in teachers leaving the field and abandoning teaching (Friedman, 2000). According to the Arizona School Personnel Administrators Association, since just the beginning of the 2020-2021 school year, at least 751 teachers have resigned or quit (Dana, 2020). The survey reflected that more than half of the teachers had left due to the pandemic. The year before their survey showed just 427 teachers had left the classroom (Dana, 2020). As of the beginning of the 2020-2021 school year, approximately 3,000, or close to 30% of teaching positions were still vacant in Arizona (Lollman, 2020). The superintendent of Arizona schools, Kathy Hoffman, said that she had heard of more teachers leaving the profession and that she was deeply concerned for the teacher shortage that we have in Arizona and how it is being worsened by the COVID-19 pandemic (Altavena et al., 2020). Some say that the increasing class sizes are due to the teacher shortages that Arizona faced even before the pandemic. Some schools in Gilbert, Arizona were experiencing virtual elementary school classroom sizes of 50-70 students each (Altavena et al., 2020). This left teachers more overwhelmed than
ever, possibly contributing to higher feelings of emotional exhaustion, depersonalization, and increased teacher burnout.

Teacher burnout is a high concern in the field of special education because it is contributing to the shortage of special education teachers (Lee et al., 2011). Special education teachers are more likely to leave the profession than general education teachers (Thornton et al., 2007; Boe & Cook, 2006). This is potentially due to the fact that special education teachers have special work demands that require them to do extra paperwork, additional record keeping, specialized behavior management skills, and thorough knowledge of all content areas (Lee et al., 2011). A study by Billingsley (2004) found that younger and less experienced special education teachers were more likely to leave the field than older, more experienced, special education teachers. Additionally, special education teachers who were uncertified and those who had higher test scores were also more likely to leave the profession compared to their counterparts (Billingsley, 2004).

According to the National Coalition on Personnel Shortages in Special Education and Related Service (n.d.), across the United States, 49 of the 50 states reported some shortage of special education teachers or related service personnel in the 2013-2014 school year and 82% of special educators report that there are not enough professionals to meet the needs of students with disabilities.

Summary

The review of the literature found that special education teachers are required to have a bachelor’s degree and have completed an appropriate teacher preparation program through one of three pathways (ADE, n.d.). These teacher preparation programs are designed to prepare teachers for everything they should know for their first years
teaching. The CEC has seven standards for incoming special education teachers that are frequently used in teacher preparation programs (CEC, n.d.). Although the standards for teacher preparation programs to become accredited have gotten stricter over the years in hopes of improving the quality of incoming teachers (Sawchuk, 2013), no one could have predicted what teachers were going to need to be prepared for teaching during the transition to online learning at the start of the COVID-19 pandemic. Teachers were required to learn new technological tools and strategies to restructure their lesson plans and quickly.

Lack of support from the school or district, lack of resources, including curriculum, supplies, and technology, and heavy workloads were all found to negatively affect special education teachers’ self-efficacy beliefs (Lee et al., 2011). Teacher burnout is a high concern in the field of special education because it is contributing to the shortage of special education teachers (Lee et al., 2011). Special education teachers are more likely to leave the profession than general education teachers (Thornton et al., 2007; Boe & Cook, 2006). This is potentially due to the fact that special education teachers have special work demands that require them to do extra paperwork, additional record keeping, specialized behavior management skills, and thorough knowledge of all content areas (Lee et al., 2011).

The review of the literature showed that the more teachers are exposed to technology, the higher their attitudes are for using technology in the classroom (Kan & Yel, 2019). Teacher self-efficacy, a teacher’s beliefs about their abilities to plan, organize, and carry out instructional activities (Skaalvik & Skaalvik, 2010), was found to be negatively impacted by negative feelings towards technology (Kan & Yel, 2019).
Personal experiences with success and failure are the most influential for a teacher’s self-efficacy beliefs, meaning teachers must have opportunities to be successful using technology in the classroom in order to develop high self-efficacy beliefs regarding technology. Teachers were unprepared and were required to take on a lot of new demands during the transition to online learning during the COVID-19 pandemic (Turner et al., 2020; Garcia et al., 2020; Cruz, 2020a; Cruz, 2020b; Cruz, 2020c). The demands for special education teachers were more intense as special education teachers sometimes have students who cannot independently access technology (Turner et al., 2020) and special education teachers are also required to maintain students’ IEPs and progress monitor their students, even during the pandemic via Zoom (Expect More Arizona, 2020).

Teacher self-efficacy is important because higher teacher self-efficacy leads to greater self-esteem, is shown to improve teacher performance, lead to higher instructional quality, and is shown to lead to lower levels of teacher burnout (Kan & Yel, 2019; Friedman, 2000; Woolfolk et al., 1990; Holzberger et al., 2013). A teacher with high self-efficacy will work harder, be more involved in the learning process, persist longer when faced with challenges and be less stressed (Bandura, 1997; Lohman, 2006). The review found that teacher burnout, a syndrome of emotional exhaustion, depersonalization, and decreased personal accomplishment (Maslach et al., 1996), is linked to low teacher self-efficacy (Skaalvik, & Skaalvik, 2007).

Research on determining what helps prepare teachers for experiences in the classroom is constantly increasing. It is crucial to understand what would best prepare both future and current special education teachers for teaching remotely during a
pandemic. This study will address a gap in literature by examining how special education teachers were impacted by the demands of the COVID-19 pandemic, specifically how their self-efficacy has been influenced. This study will show what technological supports and resources teachers feel they need to effectively teach remotely and could have influence on the future of teacher preparation programs and professional development opportunities.
Chapter 3: Methodology

Research Questions

In this study, there were five main research questions to investigate how special education teachers in Arizona were impacted by the transition to online learning during the pandemic. The questions are:

Research Question 1: How were special education teachers in Arizona impacted by the transition to online learning during the pandemic?

Research Question 2: Did special education teachers in Arizona feel prepared and supported during the transition to online learning during the pandemic?

Research Question 3: What supports and resources do special education teachers in Arizona need to continue to teach online during the pandemic?

Research Question 4: How has the transition to online learning during the pandemic affected the self-efficacy beliefs of special education teachers in Arizona?

Research Question 5: How has the transition to online learning during the pandemic contributed to the future career plans of special education teachers in Arizona?

Method

This study utilized a mixed-methods, convergent parallel design where quantitative data and qualitative data was used in a parallel fashion to gather data regarding participants’ experiences during the COVID-19 pandemic. This design was used so that the two forms of data could be collected and analyzed separately and then together to triangulate the findings. Quantitative data was collected first and then
qualitative data was collected from a portion of the participants in the quantitative portion. The quantitative data and qualitative data were analyzed together for interpretation.

**Quantitative Phase**

**Participants.** Participants in this study were required to be active special education teachers in public schools in the state of Arizona during the Spring 2020 and Fall 2020 semesters and over the age of eighteen. Over twenty special education teachers in Arizona were invited to participate in this study. I recruited participants via email. Initially, teachers that I knew personally were invited and then I reached out to individuals that I knew were special educators in Arizona even if I didn’t know them personally, introduced myself, and invited them to participate. Of the teachers asked to participate, fifteen agreed and completed the online survey.

**Instrument.** The instrument used to collect the quantitative phase of data was an online survey developed by myself and administered through Qualtrics. I developed the survey questions based on the elements I wanted to look into. Some of the items were inspired by other instruments regarding self-efficacy and preparedness however no questions were taken directly from another instrument. The survey was available in English and it consisted of 78 questions. The first two questions provided the informed consent form that participants were required to read prior to the survey and asked for consent to participate in the study. One question gathered the participants contact information for the second phase of the study. There were six questions related to the demographic information of the participants and four questions pertaining to information about the participants’ classrooms and students. The remaining 65 questions asked
participants to reflect on their experiences and feelings during the pandemic in seven categories: technology (6 questions), communication (16 questions), supports and resources (8 questions), voice and control (11 questions), preparedness (12 questions), efficacy (9 questions), and moving forward (3 questions). Most of these questions were multiple choice, except for some that had optional, clarifying, free response fields. It should be noted that two of the questions in the voice and control section were set to display only if a certain preceding answer choice was selected, meaning some participants may have answered as few as nine questions in this section. A copy of the survey questions can be found in Appendix A.

**Procedure.** Special education teachers of all grades throughout Arizona were recruited by email to participate in the online survey. The emails to potential participants were first sent individually to special education teachers that I knew personally. In this email, participants were asked to forward the email with information about the survey to other special education teachers in Arizona. Then, in the second round of recruitment emails, I emailed other educators I knew from different schools and districts throughout Arizona the information about the study and asked them to forward it along to any special education teachers they knew that might be interested in participating. The email included the informed consent form for the survey (See Appendix B) and the link to the online survey.

After participants completed the survey, I coded the survey results for participant identity by replacing participants email addresses in the survey results with unique ID numbers (100-114). The participants email addresses, names, and corresponding ID number were kept in a separate file accessed and maintained only by me. I reviewed the
survey results and selected several participants to invite to participate in the second phase of the study, the Zoom interviews.

**Data Analysis.** For the quantitative data, the survey results were analyzed by evaluating the number and distribution of responses to each response choice for each question and calculating and interpreting the mean (M) and standard deviation (SD) for the responses to each question.

**Qualitative Phase**

**Participants.** For the interview phase of the study, nine of the fifteen participants were invited to participate in follow-up interviews based on their survey results, and five responded and completed interviews. Participants were recruited via email to participate in this phase of the research as well.

**Data Collection.** The nine participants that were invited to participate in the interviews were selected because together they represented various levels of education obtained, levels of experience teaching, grade levels taught, types of classrooms, and they faced more challenges during their experiences with the pandemic. I emailed these nine participants inviting each of them individually to participate in an online interview that would last no longer than 60 minutes, including a link to a Doodle Poll (Doodle.com) used to schedule interviews and the informed consent form for the interview (See Appendix C). I scheduled available time slots for interviews through the Doodle poll and configured the poll so that participants could not see other participants’ responses. Once participants submitted availability through the Doodle poll, I emailed the participant individually to confirm one day and time for the interview and sent the participant the link and password to a private Zoom meeting for that day and time for the interview.
There were a total of five participants that completed the Doodle poll and participated in interviews.

I began the corresponding Zoom meeting for each scheduled interview five minutes prior to the start time of the interview, greeted the participant when they joined the meeting, and introduced themselves, as the Interview Procedures guided (See Appendix D). As outlined in these procedures, I guided the participant step by step on how to change their name in Zoom and asked the participant the questions on the informed consent form for the interview. Once the participant gave consent for the recording, I began recording the Zoom meeting to the Zoom Cloud and asking the participant the interview questions within the procedures (See Appendix D). The interview questions were semi-structured; I began with the first question and asked the given follow up questions as needed and as time allowed.

**Data Analysis.** Interview transcripts were downloaded from Zoom as well as the audio and video recordings from the interviews and the names of these files were changed to reflect the participants’ corresponding ID number from the survey. These files were then permanently erased from my Zoom account. I reviewed the transcript and compared it to the video recording for each interview to verify the accuracy of the transcripts. This process was completed twice to ensure transcripts were as accurate as possible. After transcripts were finished being checked, the audio and video recordings for the interviews were permanently erased from my computer, leaving only the de-identified transcript.

In the analysis of the interview transcripts, first I first examined each category of responses within each interview independently for each participant and then compared
each of the categories across participants to highlight similarities and differences. There were five participants that completed the interviews, so results were compared across these five participants’ responses. Categories and sub-categories of responses already existed within the structure of the interview, so these categories were used to compare results across participants. Some analytic coding was used for some of the results that were not as simple to compare across participants, such as responses where each participant listed several items. Analytic coding was chosen for this study because it is commonly used to explore and develop new categories or concepts, and allows for comparisons (Richards & Morse, 2013). In order to establish as much reliability in the coding data as possible for one rater, I went back into the interview transcripts several times revising the categories to make sure all data was accounted for and that the patterns were accurate.

Summary

A sample of 15 participants responded to questions about teaching during the pandemic in the online survey during phase one of the study and five of the fifteen respondents participated in phase two: the online interviews. The participants were all special education teachers in Arizona during the Spring 2020 and Fall 2020 semesters that were recruited via email to participate in this study. During phase one, the participants completed the 78 question online survey, and these results were evaluated by the distribution of responses and response means and standard deviations. During phase two, five participants completed online interviews via Zoom and answered questions that followed up on responses they gave to the online survey. These results were analyzed
according to categories used in the interview structure and developed through analytic coding to look for patterns in responses.
Chapter 4: Results

The results of this study are evaluated separately according to phase one and phase two. Phase one, the quantitative phase, describes the results from the online survey and phase two, the qualitative phase describes the responses from the virtual interviews.

Quantitative Phase

**Demographics.** In the quantitative phase of the study, there were a total of fifteen special education teachers in Arizona that participated. Two of the fifteen participants (13.33%) were male and the other thirteen (86.67%) were female. The majority of the fifteen participants were White (n=13), representing 80% of the sample, two identified as Hispanic/Latinx (13.33%), and one participant chose to self-identify as Mixed (6.67%). Just over half of the participants, 60%, were between 18-25 years old (n=9), 20% were between 42-49 years old (n=3), 13.33% were between 34-41 years old (n=2), and one participant was over 50 years old, representing 6.67% of the sample. Of the fifteen special education teachers, 33.33% of the sample have a master’s degree (n=5). One participant with a master’s degree also reported having an advanced certificate from the National Boards for Professional Teaching Standards (NBPTS), representing 6.67% of the sample. Most of the teachers in the sample were in their second year of teaching (n=6, 40%). The second largest group of teachers had been teaching for over 20 years (n=4, 26.67%), and the third largest group of teachers were in their first year of teaching (n=3, 20%). The last two participants had been teaching between 11-20 years (13.33%).

Of the fifteen participants, nine identified their classroom as a self-contained classroom (60%), five identified their classroom as a resource classroom (33.33%), and one classified their classroom as a resource room that is co-taught (6.67%). Most
participants reported teaching high school grades: eight participants reporting as teaching grades 9-12 (53.33%) and one reported teaching grades 10-12 specifically (6.67%). Two participants reported teaching grades K-5 (13.33%), one reported teaching grades 3-4 (6.67%), one reported teaching grades 4-6 (6.67%), and two reported teaching middle school grades 7-8 (13.33%).

In the Spring 2020 semester, most of the participants (n=6) reported having between 11 and 15 students on their caseload (40%), while four participants reported having between 6 and 10 students (26.67%), two participants reported having between 16 and 20 students (13.33%), one reported having between 21 and 25 students (6.67%), and the last two participants both reported having 42 students on their caseload (13.33%). The mean for this response was 3.7, closer to 16-20 students than 11-15 students. In the Fall 2020 semester, these numbers increased slightly. The majority of participants, now seven, still reported having between 11 and 15 students on their caseload (46.67%), followed by four participants reporting between 21 and 25 students (26.67%), two reporting between 6 and 10 students (13.33%), one reporting between 16 and 20 students (6.67%), and the last participant reporting 47 students on their caseload (6.67%). The mean for this semester slightly increased to 3.8, even closer to 16-20 students than 11-15 students per classroom on average.

**Technology.** The next section of the survey asked participants about their uses of and opinions on technology before and after the pandemic. Most of the participants agreed to some degree that they used technology on a weekly basis in their classroom before the pandemic: four somewhat agreed (26.67%), six agreed (40%), and one strongly agreed (6.67%), representing a total of 73.34% of the sample. Three participants
somewhat disagreed (20%) and one participant neither agreed nor disagreed (6.67%) to using technology on a weekly basis in their classroom before the pandemic. The average or mean (M) response for this statement was 5.1, slightly above somewhat agree, and the standard deviation (SD) was 1.2, meaning that on average, participants responded 1.2 data points away from the mean. After the pandemic, participants reported much higher levels of agreement with this question: 93.33% of the sample strongly agreed (n=14), and 6.67% agreed (1) that they used technology on a weekly basis after the pandemic began (M=6.9, SD=0.3). On average, participants responded very close to strongly agree. The low standard deviation indicates that participant responses are very close together.

Overall, most teachers agreed with using technology on a daily basis in their classroom before the pandemic: 33.33% somewhat agreed (n=5), and 20% agreed (n=3). Three participants somewhat disagreed (20%), one participant strongly disagreed (6.67%), and one participant neither agreed nor disagreed to using technology on a daily basis in their classroom before the pandemic. The mean response for this statement was 4.2, slightly above neither agree nor disagree and the average distance of the other data points away from the mean was 1.7, indicating that data points were somewhat spread out. Similarly, teachers’ responses to using technology on a daily basis were more agreeable after the pandemic as well: 86.67% of participants strongly agreed that they used technology on a daily basis in their class after the pandemic (n=13) and 13.33% agreed to that statement (n=2). On average, participants responded to this question with strongly agree (M=6.9), with a standard deviation of 0.3.

Every participant except for one, 93.33% of the sample, reported that they strongly agreed technology was essential in their classroom during the pandemic (M=6.9,
SD=1.4), compared to just 6.67% of the sample that strongly agreed technology was essential in their classroom before the pandemic (M=4.2, SD=0.3). The one participant that did not strongly agree to this statement reported that they agreed technology was essential to their classroom after the pandemic, compared to just two participants that agreed technology was essential to their classroom before the pandemic.

**Communication.** The next section of the survey asked participants about their communication habits before and after the pandemic with their district and school administrators, other teachers at their school, their students, and their students’ parents. Specifically, participants were asked if they received clear and regular communication from their school administrators and district administrators and if they regularly communicated with their students and their students’ parents before and during the pandemic. Participants were by far the most split on their response choices on the statement pertaining to communication with their school districts during the pandemic. Overall, participants showed a decrease in the amount of clear and regular communication between their schools and school districts after the pandemic began, roughly the same amount of communication with other teachers at their school and their students, and an increased amount of communication with their students’ parents. The specific responses for these survey statements along with the means (M) and standard deviations (SD) for each statement are shown in Table 1.
Table 1

Number of responses to communication statements by response choice

<table>
<thead>
<tr>
<th>Statement</th>
<th>STD</th>
<th>D</th>
<th>SMD</th>
<th>N</th>
<th>SMA</th>
<th>A</th>
<th>STA</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>School District Administrators</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Before the pandemic, I received clear and regular communication from</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>4</td>
<td>6</td>
<td>1</td>
<td>5.0</td>
<td>1.4</td>
</tr>
<tr>
<td>my school district</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>During the pandemic, I received clear and regular communication from</td>
<td>2</td>
<td>5</td>
<td>2</td>
<td>0</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>3.6</td>
<td>2.0</td>
</tr>
<tr>
<td>my school district</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>School Administrators</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Before the pandemic, I received clear and regular communication from</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>7</td>
<td>5</td>
<td>6.1</td>
<td>0.7</td>
</tr>
<tr>
<td>the administrators at my school</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>During the pandemic, I received clear and regular communication from</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td>0</td>
<td>2</td>
<td>4</td>
<td>3</td>
<td>4.5</td>
<td>2.1</td>
</tr>
<tr>
<td>the administrators at my school</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Other Teachers</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Before the pandemic, I regularly communicated with other teachers at my</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>6</td>
<td>5</td>
<td>3</td>
<td>5.7</td>
<td>0.9</td>
</tr>
<tr>
<td>school</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>During the pandemic, I regularly communicated with other teachers at my</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>6</td>
<td>5</td>
<td>2</td>
<td>5.2</td>
<td>1.5</td>
</tr>
<tr>
<td>school</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Students</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Before the pandemic, I regularly communicated with my students</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>4</td>
<td>9</td>
<td>6.2</td>
<td>1.5</td>
</tr>
<tr>
<td>During the pandemic, I regularly communicated with my students</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>3</td>
<td>4</td>
<td>6</td>
<td>5.7</td>
<td>1.7</td>
</tr>
<tr>
<td><strong>Students’ Parents</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Before the pandemic, I regularly communicated with my students’ parents</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>3</td>
<td>6</td>
<td>4</td>
<td>5.8</td>
<td>1.0</td>
</tr>
<tr>
<td>During the pandemic, I regularly communicated with my students’ parents</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>8</td>
<td>5.9</td>
<td>1.6</td>
</tr>
</tbody>
</table>

*Note:* STD=Strongly disagree, D=Disagree, SMD=Somewhat Disagree, N=Neutral, SMA=Somewhat Agree, A=Agree, STA=Strongly Agree, M=Mean, SD=Standard Deviation

**Supports and Resources.** The next section of survey questions referred to the supports and resources participants had from their schools and their school districts before and during the pandemic. When asked if they felt their school districts provided them with supports and resources to ensure they had a safe environment to conduct remote lessons, participants were somewhat divided: two strongly disagreed (13.33%), two disagreed (13.33%), one somewhat disagreed (6.67%), two somewhat agreed...
(13.33%), five agreed (33.33%), and three (20%) strongly agreed (M=4.7, SD=2.2). The standard deviation for this question is 2.2, meaning that on average, each participants response was 2.2 points away from the mean, which was 4.7, closer to somewhat agree than neither agree nor disagree.

Most participants either somewhat agreed (33.33%) or agreed (33.33%) that their schools provided their students with the resources necessary to attend remote classes from a safe environment. For the rest of the participants, one disagreed (6.67%) and one somewhat disagreed (6.67%) with this statement while one neither agreed nor disagreed (6.67%) and one reported they did not know (6.67%). The mean for this statement was 5.1, slightly above somewhat agree, and the standard deviation was 1.7, indicating the average distance other responses were from the mean was 1.7 points.

Figure 1 displays the results of four questions pertaining to supports and resources combined. Participants were asked in these questions if they feel they were provided the supports and resources they needed to do their job by their schools and their school districts both before and after the pandemic. On average, participants strongly agreed that before the pandemic, their school districts provided them with the supports and resources necessary for them to do their jobs (M=4.7, SD=1.4), whereas after the pandemic began on average participants neither agreed nor disagreed with this statement (M=4.2, SD=1.6).
Participants were asked if they thought their school districts and/or their schools provided them with resources that were helpful for adapting to the new e-learning demands beginning in the Spring 2020 semester. Participants were split on how well they feel their schools and their districts provided them with supports and resources for the transition to online learning. The distribution of responses and the mean (M) and standard deviation (SD) to these two questions are displayed in Figure 2.
Figure 2

Participant perceptions of being provided helpful supports resources from their schools and school districts for adapting to the new e-learning demands beginning in the Spring 2020 semester

Voice and Control. This section of the survey asked participants how much control they feel they had over decisions that affected them in their jobs and how often they felt they were able to share their opinions about decisions being made in their schools and districts. In general, before the pandemic, most participants somewhat agreed that they had opportunities to share their opinions about decisions being made in their schools (46.67%), whereas 13.33% of others strongly agreed, 13.33% strongly disagreed, 6.67% disagreed, 6.67% agreed, and 6.67 neither agreed nor disagreed. The average participant neither agreed nor disagreed to this statement (M=4.4, SD=1.8). Figure 3 reflects the distribution of responses participants made when reflecting on the opportunities they had to share their thoughts and opinions both with their schools and
their school districts during the pandemic and the mean (M) and standard deviation (SD) for each statement. The most common response to both questions was somewhat agree, followed by either disagree, strongly disagree, or strongly agree.

**Figure 3**

*Participant perceptions of being provided opportunities to share thoughts and opinions with their schools and school districts during the pandemic*

---

Overall, more participants agreed to some extent that they had more control over decisions being made at their school compared to in their district during the pandemic. When asked if they felt they had control over decisions being made at the district level, on average participants somewhat disagreed (M=3.0, SD=1.8): five participants strongly disagreed (33.33%), two disagreed (6.67%), two somewhat disagreed (6.67%), two somewhat agreed (6.67%), two agreed (6.67%), and two neither agreed nor disagreed (6.67%). Within their school, four participants strongly disagreed (26.67%), three disagreed (20%), one somewhat disagreed (6.67%), three somewhat agreed (20%), two
agreed (13.33%) and two neither agreed nor disagreed (13.33%). On average, participants still somewhat disagreed to this statement, but slightly less than they did for their school districts (M=3.2, SD=1.8).

All participants either somewhat agreed, agreed, or strongly agreed that they had control over their daily and weekly routines in their classroom before the pandemic began (n=2, n=7, and n=6, respectively). The average response for this statement was 6.3, just above agree, with a standard deviation of 0.7 indicating a low spread of the data points. After the pandemic began, some participants disagreed to some extent that they had control over their daily and weekly routines during the pandemic, representing 46.67% of the sample, leaving just over half of the sample (53.33%) that agreed to some extent that they had control over their routines during the pandemic. On average, participants neither agreed nor disagreed with this statement (M=4.1, SD=2.0). See Figure 4 for a representation of these results.
Figure 4

*Participant perceptions of the control they had over their daily and weekly classroom routines before and during the pandemic*

The majority of participants (n=11) reported that they returned to the classroom to teach their students during the Fall 2020 semester (73.33%) while the rest did not return to their classroom to teach. On average, participants somewhat agreed to having a choice in returning to the classroom this semester (M=2.2, SD= 0.6). Of these 11 participants, one reported it was their choice to return to the classroom (6.67%), three reported it was not their choice (20%) and seven reported it was somewhat their choice to return to their classroom (63.64%). Only two participants that returned to their classrooms to teach their students remotely did not return to the classroom with students in-person during the Fall 2020 semester (13.33%) and two who did not teach remotely in their classroom did return...
with some students later in the semester (13.33%). Nine of the participants that taught remotely in their classroom did have some students return to the classroom with them during this semester (60%), leaving just two participants who reported not returning to their classroom with students at all during this semester.

**Preparedness.** In the section about preparation, participants were asked about their experiences and feelings towards their teacher preparation programs and professional development opportunities. It is important to note that only 14 of the 15 participants reported attending a teacher preparation program so there were a total of 14 responses recorded and evaluated for the section regarding teacher preparation programs. Every other section in the survey reflects the responses of all 15 participants. These results are displayed in Table 2.

**Table 2**

*Participants’ perceptions of preparedness in terms of teacher preparation programs and professional development opportunities*

<table>
<thead>
<tr>
<th>Statement</th>
<th>STD</th>
<th>D</th>
<th>SMD</th>
<th>N</th>
<th>SMA</th>
<th>A</th>
<th>STA</th>
<th>IDK</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Teacher Preparation Programs</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I feel my teacher preparation program gave me the knowledge and skills I needed to teach in the classroom.</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>4</td>
<td>7</td>
<td>1</td>
<td>0</td>
<td>5.4</td>
<td>1.1</td>
</tr>
<tr>
<td>I feel my teacher preparation program could have better prepared me for teaching.</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>5</td>
<td>6</td>
<td>1</td>
<td>0</td>
<td>5.4</td>
<td>0.8</td>
</tr>
<tr>
<td>I feel my teacher preparation program gave me the knowledge and skills I needed to use technology in the classroom, before the pandemic.</td>
<td>0</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>4.2</td>
<td>1.4</td>
<td></td>
</tr>
<tr>
<td>I feel my teacher preparation program prepared me for the possibility of teaching students remotely.</td>
<td>4</td>
<td>4</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>2.7</td>
<td>1.6</td>
</tr>
<tr>
<td>I feel my teacher preparation program prepared me for the possibility of conducting IEP meetings online.</td>
<td>2</td>
<td>6</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>NA</td>
<td>2.9</td>
<td>1.5</td>
</tr>
<tr>
<td>I feel my teacher preparation program prepared me for the demands of e-learning I experienced during the pandemic.</td>
<td>2</td>
<td>8</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>2.6</td>
<td>1.4</td>
</tr>
</tbody>
</table>
Self-efficacy. The next section measured teachers’ self-efficacy beliefs before and after the pandemic. Specifically, participants were asked to reflect on how they felt they were at their jobs and how effective they felt they were at teaching their students and meeting their students’ needs. Figure 5 represents the responses participants made about their self-efficacy before the pandemic began as well as the mean (M) and standard deviation (SD) for each statement. Figure 6 represents the responses participants made about their self-efficacy during the pandemic. Participants were asked if they felt they continue to get better at teaching every day. Most participants somewhat agreed (n=7, 46.67%), four participants agreed (26.67%), two strongly agreed (13.33%), one somewhat disagreed (6.67%), and one neither agreed nor disagreed with the statement (6.67%). The mean response to this statement was 5.3, meaning on average participants somewhat agreed to this statement (M=5.3, SD=1.0).
Figure 5

Participants’ perceptions of their self-efficacy before the pandemic

Note. M=Mean, SD=Standard Deviation
Moving Forward. The last section of the survey asked participants three questions about how they feel moving forward through the pandemic. These questions specifically addressed how confident participants feel they are that their schools will provide them with the supports and resources necessary for them to continue providing remote lessons for their students, how confident participants are that their schools will address any concerns they have in a timely manner moving forward and how confident
they feel they are that they will be able to continue providing remote lessons for their students moving forward. Figure 7 reflects the participants’ responses to how confident they feel their school will provide them with needed resources and supports moving forward with the mean (M) and standard deviation (SD) for each question and Figure 8 reflects their responses to how confident they are that their school will address any concerns in a timely manner moving forward with the mean (M) and standard deviation (SD) for each question.

**Figure 7**

*Participants’ confidence in their school providing them with supports moving forward*

![Piev Chart](image)

*Note. M=Mean, SD=Standard Deviation*
Figure 8

Participants’ confidence in their school addressing their concerns moving forward

Note. M=Mean, SD=Standard Deviation

Qualitative Phase

Demographics. Of the fifteen special education teachers who participated in the survey, nine were emailed and asked to participate in follow-up interviews based on their survey results, and five participants agreed to participate in an interview. The five participants that volunteered for an interview consisted of three females (60%), and two males (40%). Four out of five of the interview participants were White and the fifth participant was Hispanic/Latinx. Two of the five interview participants were between 18-25 years old (40%), two were between 34-41 years old (40%) and one was between 42-49 years old (20%). The majority of these participants were in their second year of teaching.
(n=2), while the others had been teaching for 11-15 years (n=1), for 16-20 years (n=1), and for over 20 years (n=1). Sixty percent of the interview participants reported the highest level of education completed was a bachelor’s degree (n=3), while forty percent of participants reported attaining a master’s degree (n=2). The one participant in the study that reported holding an advanced certificate from the National Boards for Professional Teaching Standards (NBPTS) was one of the participants who volunteered in the interviews.

Most of the special education teachers that participated in interviews teach self-contained classrooms (n=3), while the rest teach resource classrooms (n=2). These teachers all reported teaching different grade levels: kindergarten through fifth grade (n=1), fourth through sixth grade (n=1), seventh through eighth grade (n=1), ninth through twelfth grade (n=1), and tenth through twelfth grade (n=1). During the Spring 2020 semester, the majority of the special education teachers reported having between 11 and 15 students on their caseload (n=3), one reported having between 16-20 students on their caseload, and the fifth reported having 42 students on their caseload. In the Fall 2020 semester, the number of students in these teachers’ caseloads increased. Two participants still had between 11 and 15 students on their caseload (40%), two had now increased to between 21 and 25 students (40%), and the last participant had also increased to 47 students on their caseload (20%) during this semester.

**Technology.** In the first main section, participants were asked to describe how they used technology in their classroom before the pandemic, if they had the resources needed to incorporate technology into their classroom before the pandemic, how their use of technology changed after the pandemic began, and if they feel they have the resources
they need now to use technology in their class. When participants were asked to describe
the ways that they used technology in their classroom before the pandemic, many gave
specific examples of pieces of technology which were used to create codes. These were
measured across all interviews and the codes and frequency count for each method of
using technology are displayed in Table 3.

Table 3

Methods of technology used by participants before the pandemic

<table>
<thead>
<tr>
<th>Code</th>
<th>Frequency</th>
<th>Code</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computers</td>
<td>1</td>
<td>Google Classroom</td>
<td>1</td>
</tr>
<tr>
<td>iPads</td>
<td>2</td>
<td>Google Docs</td>
<td>2</td>
</tr>
<tr>
<td>Smart Board</td>
<td>3</td>
<td>Instructional websites</td>
<td>1</td>
</tr>
<tr>
<td>Projector</td>
<td>2</td>
<td>Individualized Assistive Technology</td>
<td>3</td>
</tr>
</tbody>
</table>

Four out of the five interview participants reporting having the resources they
needed to incorporate technology into their classroom before the pandemic began (80%).
The other teacher described not having the resources they needed to use technology in
their classroom before the pandemic. They explained a situation they had with a few
different students where they wrote in the students’ IEPs that they needed an iPad
provided by the district and the district did not provide one. They said that the district
was “not willing or able or they were just completely non-responsive in getting those
[iPads]”. This was after the teacher had partnered with the students’ occupational
therapist, used a loaner device from a local library and gathered evidence that it was
effective, and the district was unable to provide the students with iPads. This teacher
explained that in order to purchase a few iPads for her classroom, she saved up a few
years of the yearly budget she received from the district to run their entire life skills
program and used that along with a lot of tax credit. This teacher also expressed that they were frustrated because if a teacher, or anyone, thought a student might benefit from a certain piece of assistive technology, there was no established procedure to have someone meet with the student, document the need, and talk about different options. This teacher is left on their own to do the research and try to find the availability of resources for their students.

All participants described their use of technology as different during the pandemic. They described using technology way more than they did before, one participant said that it “increased dramatically”. Almost every participant said that “everything is online” nowadays. All participants described students using Google classroom and different products in the Google Suite such as Google Docs, Google Slides, and Google Sheets. One teacher specifically mentioned that they find it difficult to find ways to ensure all of the lessons provided through Google Classroom are accessible to their students, some that are unable to type or drag things across a computer screen. Another teacher highlighted how when using technology in the classroom with their students during the pandemic, they must now account for the time it takes to sanitize the technology after every use. Another issue this teacher faced was her students not being able to access lessons she had created on their district computers because those websites hadn’t been approved by the district. They described finding themselves having to come up with a totally different lesson last minute because none of their students could access the one that was planned.

Two participants felt like they had the supports and resources they needed to conduct their classroom using technology during the pandemic. They both explained that
they felt that the resources that could have been provided were provided and they both acknowledged their local technology departments for providing them with resources quickly when they needed. One participant did not feel like they had the technological resources they needed during the pandemic. They described always needing at least one more computer, and not having the resources they needed to find and use district-supported instructional technological tools for their students.

The other two participants both felt like they had enough resources but could’ve used more. One teacher described feeling frustrated and struggling with finding resources online for using new tools. Both of them also described wishing that their school or district would have provided resources to support the instructional aides that work with them. These two participants both explained that their instructional staff were not provided resources for how to use tools like Google Classroom or how to navigate Google Suite or any of the other school websites in order to facilitate students with learning how to use these tools. These teachers described it being very challenging having to learn these tools themselves, then teach their aides how to use them, and then teach their students how to use them. One of the participants explained that they expected their district special education department to be at the forefront of advocating for their related service providers and instructional aides to have access to supports and resources, but they weren’t. However, this participant did acknowledge their district for purchasing computers for all students early into the pandemic and getting them distributed to students quickly. They said they “didn’t expect the district to have all of that, but it was good to see that they had that available for students, this time around”.

Communication. In this section, participants were asked about their communication habits with administrators from their school districts, administrators from their schools, other teachers from their schools, their students, and their students’ parents before and after the pandemic. All of the participants reported communicating with the administrators from their school on a weekly, and some a daily basis through email, seeing them around the school, or in scheduled staff meetings before the pandemic. Three of the five participants reported communicating with administrators from their school districts roughly once a month and mostly through email before the pandemic. One participant reported communicating with district administrators somewhat frequently as they visited the school before the pandemic. The other two participants reported not hearing from their district special education administrators very often at all before the pandemic. One of these participants described an experience where they reached out to a member of the administrative office about the frustration that they had with the lack of communication they received from that office. In this situation, the participant received an apology from the office and an invitation to a meeting to discuss the difficulties in communication only to have that meeting cancelled at the last minute. This participant described the lack of communication from the district special education department as being their biggest frustration.

After the pandemic, most of the teachers reported that they communicated with their administrators even less than before (n=4). One of these participants reported that the communication with their district was worse at the beginning of the pandemic in the Spring 2020 semester but improved some in the Fall 2020 semester. One participant reported that the communication with their administrators did not change very much after
the pandemic began. They did not see each other very much for a while but when they were back to teaching in person, administrators still made their rounds and they still called, texted, and emailed back and forth.

Participants were asked if they were confident that they could communicate with their school district and their schools, separately, if they needed to, during the pandemic. Participants were split on how confident they could communicate with their school and school district if they needed to. The results to these interview questions are displayed in Table 4.

Table 4

<table>
<thead>
<tr>
<th>Participant</th>
<th>School</th>
<th>District</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>2</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>3</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>4</td>
<td>Yes</td>
<td>Depends on the topic*</td>
</tr>
<tr>
<td>5</td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>

Note. Participant numbers 1-5 are only used to distinguish participants from each other in this table.

*This participant elaborated by explaining if it is a minor issue, they are more willing to discuss, but if it is a major issue, they will tell you they will get back to you

One participant reported a particularly challenging experience with their administrators during the pandemic. They described feeling like no one was caring about or checking in on what they were doing with their students and they explained they had no accountability for what they did in the classroom. They gave another example where they felt frustrated with their administrators when their school administrators had
organized a social lunch event after advising teachers not to meet with each other for lunch as they were used to before the pandemic.

Before the pandemic, participants described communicating with other teachers over email, text messages, phone calls, and in-person through one-to-one meetings, professional development, staff meetings, or just passing by. Some reported communicating with other teachers on a daily basis and others more on a weekly basis. After the pandemic began, one participant reported their communication with other teachers decreased, while three reported that it mostly stayed the same, the only difference being there was less communication in-person. One of these participants reported that their communication may have increased with other teachers during the pandemic. One participant did not report how frequently they communicated with other teachers before or after the pandemic.

Four of the five participants reported most frequently communicating with their students’ parents over emails and phone calls before the pandemic. The other participant reported that emails were rare and phone calls and sending papers home were the primary methods of communication between themselves and parents before the pandemic. Two of the participants specified that they talked to at least a few parents every day. All five participants reported that they still communicated with parents mainly over phone calls, text messages, and emails. The participant that reported not using email frequently prior to the pandemic stated that they used emails much more frequently now than before. Two participants described setting up a Google phone number to provide parents with because they were not in their classroom to answer their classroom phones that parents had been using to communicate with them. One participant explained they just gave their cell
phone number to their students and their students’ parents to make communication a lot easier during the pandemic.

Every participant responded that they most frequently communicated with their students in-person before the pandemic. One participant described sending letters home with students as another way of communicating with them before the pandemic. Every participant reported less in-person communication with their students during the pandemic. One participant reported that some of their students began to communicate with them over email after the pandemic began and most reported an increase in communication with their students over Zoom and Google Classroom. Three participants specifically highlighted the lack of connection they have with their students during the pandemic due to not being able to work hands-on and close with their students, see their faces, and get to know them personally. Two participants pointed out that the changes in communication with their students during the pandemic, specifically the increase in students emailing and texting them, has presented a good opportunity for teachers to demonstrate appropriate online communication skills with students. For example, one participant described taking the opportunity to teach their student that sending an email to their teacher every three minutes is not an appropriate way to communicate over email.

**Supports and Resources.** This section asked participants about the supports and resources that were made available to them after the pandemic and if they felt they had the supports and resources needed to do their job during the pandemic. Three participants described being provided with some online live and recorded workshops for how to use different technological tools such as Google Classroom, and different apps and websites their districts use. Three participants shared that their technology team shared tips and
tricks weekly with teachers that covered these technological tools. Two specified that professional development opportunities were not only held over Zoom now, but also tailored to Zoom, covering topics they had already discussed, but now focused on the Zoom environment. Two teachers described their schools or programs setting up local online chats or Google Classrooms for teachers to ask each other questions and share tips.

Four participants reported using at least some of the resources provided to them from their school or district after the pandemic. One of these participants estimated that about 70% of the resources they were provided were useful. Three of the five participants expressed feeling like they had the supports and resources they needed to do their job during the pandemic, however one of these participants explained that there have never been good resources at their school and they only had the resources they needed because they had learned over the years where to find them elsewhere by themselves. One other participant said that they had most of the supports and resources they needed, but they could have used more. They expressed that they used some of the resources provided by the school and/or district, but they still had to go out and find their own resources and talk to other teachers they knew to answer all of their questions. Additionally, this participant mentioned a lack of resources and supports provided for their instructional aides in the classroom. The other participant did not feel like they had the resources they needed; they explained that the resources provided were tailored to the general education population and not specific for special education. This participant described that when these concerns were brought up, special education teachers were told that they needed to figure out how to make things work for their students by themselves. They expressed that they are still looking for resources and support on how to make remote teaching work for
special education, specifically with progress monitoring and for students with behavioral concerns.

One participant expressed having a huge lack of supports and resources from their school district before the pandemic, explaining that the last time professional development was actually offered through that district was over seven years ago. Some staff in the district and in the schools send out emails with links to outside professional development occasionally, but it had not been offered from the district in years. This participant said there were a few more resources offered by the school, but they described it as “pretty minimal in both areas”, explaining they had to really seek out their own supports and resources for growth. This participant shared that the supports and resources they received during the pandemic, such as a local online chat for teachers to ask questions and some professional development from the school have improved during the Fall of 2020 semester.

**Voice and Control.** This section asked participants to reflect on the opportunities they had to share their opinions in their schools and districts before and during the pandemic. Participants were also asked about their return to the classroom during the pandemic and how much control they feel they had over that decision. Two participants shared that both their school and school district had poor opportunities to share opinions before and after the pandemic. Four participants described their district and schools providing them with only some opportunities to share their opinion about decisions being made and how it always felt as though it didn’t matter what opinions were shared, the administrators had already made up their mind before the meeting. Two of these
participants specifically recalled that both before and after the pandemic the communication from the school and district was lacking and did not change.

One participant felt like their opinion was taken into consideration at their school before the pandemic, but not their school district and they did not feel like they were listened to by the school district during the pandemic either. Another participant described there being no opportunities from the district administrators, both before and during the pandemic, to share opinions. They said they send emails expressing concerns to the district and there is rarely a response. After the pandemic began, this teacher said the opportunities for voicing what they wanted to do in their classroom and with their program were improved because this teacher and their co-teacher were able to create their own plan for their program and their classroom moving forward and there was more support in place at this time during the Fall 2020 semester. Only one participant expressed that there were plenty of opportunities to share opinions in the school and district before and during the pandemic. They described communication in their district to be easy and explained that during the pandemic they were invited to and attended several virtual meetings within the district to share opinions and hear updates.

All of the participants reported returning to their classroom to work remotely in August of 2020. All five also had students return to the classroom with them in some capacity. For three of the participants, students returned to the classroom with them in mid-October and for two participants, students returned sometime in September. Two of these teachers reported that only a handful of students returned to the classroom with them because these individuals were especially struggling with or didn’t have access to online learning at home.
**Preparedness.** In this section, participants reflected on the teacher preparation programs that they took and how well they feel this program prepared them for when they began teaching. All five participants recalled completing their teacher preparation program. Initially, participants were asked to list as many course topic names that they could remember taking specifically in their teacher preparation programs. The course titles were evaluated, and some similar categories were combined to make codes of class topics. Table 5 displays all of the course topics that participants recalled taking in their teacher preparation program along with the frequency in which that topic was named.

**Table 5**

*Courses participants recalled taking during their teacher preparation programs*

<table>
<thead>
<tr>
<th>Code</th>
<th>Frequency</th>
<th>Code</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Active Participation</td>
<td>1</td>
<td>Language</td>
<td>1</td>
</tr>
<tr>
<td>Assessment</td>
<td>1</td>
<td>Math</td>
<td>1</td>
</tr>
<tr>
<td>Behavior Management</td>
<td>2</td>
<td>PLAAFPs (Present Levels of Academic Achievement and Functional Performance)</td>
<td>1</td>
</tr>
<tr>
<td>Classroom Management</td>
<td>2</td>
<td>Practicum</td>
<td>2</td>
</tr>
<tr>
<td>Collaboration</td>
<td>2</td>
<td>Reading</td>
<td>2</td>
</tr>
<tr>
<td>Culture</td>
<td>1</td>
<td>Special Education</td>
<td>1</td>
</tr>
<tr>
<td>Description of Disabilities</td>
<td>3</td>
<td>Speech</td>
<td>2</td>
</tr>
<tr>
<td>Educational Psychology</td>
<td>1</td>
<td>Teaching Methods</td>
<td>1</td>
</tr>
<tr>
<td>IEPs (Individualized Education Plans)</td>
<td>4</td>
<td>Writing</td>
<td>2</td>
</tr>
</tbody>
</table>
This question was asked of participants to see what course topics would be recalled at this time from teachers in comparison to the years of experience the teachers had in the study. The results from Table 5 were surprising considering that 40% of the interview participants were in their second year of teaching, presumably having finished their teacher preparation program relatively recently, and only one recalled taking a class dedicated to special education, only one recalled taking an educational psychology course, and only one recalled taking classes regarding assessment. It was expected that courses in these areas would have been recalled more by participants.

Participants were asked how well they felt they were prepared by their teacher preparation program in general and two participants responded that they were “well” prepared, as well as could have been expected, one participant estimated that in general they were 70% prepared by their program and another said they were 70-80% prepared by their program. The fifth participant described being “kind of” prepared by their preparation program. Next, participants were asked if they felt prepared by their program for using technology in the classroom specifically. One participant described feeling like they definitely could have been more prepared for how to use technology on a day-to-day basis. Two participants explained that there was not as high of a need to be prepared for technology in the classroom due to the time of when they completed their teacher preparation program. One participant described being “fairly well” prepared for using technology in the classroom.

In the interviews, three of the five participants were asked if they felt they were prepared for the possibility of conducting IEP meetings remotely. All of them said they were not prepared for this possibility. Three participants all noted at some point in their
interview that they thought one of the best things to come of the pandemic is the frequency of remote IEP meetings. They described them as being easier for everyone involved to attend and easier to stay focused.

When participants were asked if there was anything else that they wish their teacher preparation had prepared them for before they began teaching, all five had different responses. Only one participant said there was nothing they could think of that they could have been better prepared for. One participant responded that they could have been more prepared for collaborating with and managing several instructional aides in the classroom. This was something not covered in their program and when they began their first job and had to manage over ten instructional aides, they needed a lot of help from the aides themselves in coordinating schedules. This participant also described student discipline as an area that they could have been more prepared for. Another participant expressed that they wished they were more prepared to deal with challenging and aggressive behaviors from students, specifically what to do in the exact moment an incident occurs. The last participant described wishing they were more prepared at understanding the importance of building connections with students.

**Self-efficacy.** In this section, participants were asked about how they felt about being a teacher before the pandemic and how these views of themselves changed after the pandemic began. All participants said during their interview that they felt they were good at their job before the pandemic began. Only one participant reported still feeling like they were good at their job during the pandemic. All reported feeling less effective at their job during the pandemic. Two participants specifically highlighted their abilities to connect with their students before the pandemic began and how they didn’t feel they had
this ability after the pandemic. One of these participants said that the computer covered up who they were as a teacher.

Some of the participants specifically expressed that they felt they were effective at being a special education teacher and meeting the needs of their students before the pandemic (n=3 and n=2, respectively). Two participants explained that before the pandemic they could see their students making progress and meeting goals, and now they can’t see them making progress as easily. One teacher described their love for hands-on and group activities in class and how these are not possible during the pandemic and how this has changed who they are as a teacher. This participant, who described themselves as a “very good teacher” before the pandemic, now described themselves as a “decent teacher” during the pandemic. Another participant shared that they weren’t sure that what they were doing really mattered; they weren’t sure how much their students were really gaining from online learning and whether there was a point to it all.

Two participants expressed that they felt like they did not know what they were doing during the pandemic; one of them explaining that they felt like a brand new teacher all over again, feeling like they’re “working really hard and still not super good at it” and the other explaining they did not feel they were servicing their students the way they should be serviced now. One participant highlighted feeling like they put a lot more of themselves into their job now, explaining that now, during the pandemic, they got to work early, left work late, and still did more work once they got home.

Moving Forward. The last section of the interview asked participants about their plans for teaching the following semester and year, how the pandemic has affected these goals, what participants feel they need from their schools and/or their school districts
moving forward, and what concerns they had moving forward. All participants said that they were going to continue teaching, they were not planning on leaving the field. One participant did say that they had thought about leaving, possibly more seriously after the pandemic, but the thought of leaving is hard because they really love what they do. This participant expressed that the pandemic made them question how long they could continue doing this job, whether or not they would have the stamina, energy, and positivity to continue doing this for twenty more years. One participant shared that the pandemic has affected the way that they view their job. Before the pandemic, it was something they looked forward to and wanted to do, now they view it as something they have to do.

Three of the five participants expressed transparency as the number one thing that they needed from their schools and/or districts moving forward. One participant described there being “absolutely no transparency whatsoever”. Another participant explained that what they needed from their administrators moving forward was more professional development and training, and better communication from the district. Two other participants also mentioned needing better communication, specifically form their district, moving forward. Only one participant said that they did not need anything else from their school or district at this time moving forward.

Moving forward, participants expressed being concerned for the physical and mental health and welfare of their students (n=2), the participation and engagement of their students (n=1) and the overall learning and growth of their students (n=1). One participant also expressed that they were concerned over schedules and plans changing constantly and quickly. They described that it felt as though just as they and their students
got used to a new scheduled, it was changed, and no one knew what they were doing again. When participants were asked what they considered to be the best part of online learning during the pandemic, most said something about the exposure their students are receiving with technology is really beneficial because it teaches them life skills such as using Google suite and email, one said that their students enjoyed using and manipulating Google classroom, and another participant mentioned that the variety of educational websites and activities available now is a good aspect of pandemic learning.

**Summary**

This study contained a quantitative phase with an online survey and a qualitative phase that consisted of an online interview. Fifteen participants completed the survey and five completed an interview. The size of the caseload teachers had during the Fall semester on average was greater than the case load size in the Spring semester. Participants reported using technology on both a weekly and a daily basis more during the pandemic than before the pandemic. In the interviews, all teachers reported an increase in technology use during the pandemic. Of the five participants that completed interviews, 80% reported feeling that they had the resources they needed to incorporate technology into their class before the pandemic and less than half reported not having all of the resources that they needed to conduct their classroom with technology during the pandemic.

On average, participants reported better clear and regular communication from their school and school districts before the pandemic compared to during. They reported on average more regular communication with other teachers at their school and their students before the pandemic compared to after. During the interviews, participants all
expressed that communication with their administrators was less frequent during the pandemic. Only one person that participated in an interview was confident they could communicate with their school and their school district if needed.

Participants on average regularly communicated with their students’ parents slightly more after the pandemic began. In the interviews, participants reported that the main methods of communicating with students’ parents remained mostly the same after the pandemic started: email, phone calls, and text messages. Every participant in the interviews reported communicating with their students less during the pandemic.

On average, participants had the supports and resources they needed from their school and their school district before the pandemic but not after. Participants received more helpful supports and resources from their districts than their schools at the beginning of the pandemic. Three of the five participants that completed interviews felt they had the supports and resources they needed to do their job during the pandemic. Participants reported having more control over their daily and weekly routines before the pandemic. During the pandemic, participants reported being provided opportunities to share thoughts and opinions regarding the pandemic slightly more by their schools than their school districts. Of the participants that completed interviews, four said that they feel they had opportunities to share their opinion regarding the pandemic, but they feel it wasn’t seriously considered and didn’t matter because the decisions had truly already been made.

On average, participants felt that their teacher preparation program gave them the knowledge and skills needed to teach in general and use technology in the classroom when they began teaching. However, on average, they reported feeling like their teacher
preparation program could’ve better prepared them for teaching. Participants reported having more professional development before the pandemic compared to after the pandemic. Before the pandemic, on average, teachers reported feeling very good at their job, effective at teaching, and effective at meeting their students’ needs. These averages all decreased after the pandemic.

In the interviews, all five participants felt that they were good at their job before the pandemic and all reported feeling less effective at their job during the pandemic. All participants that completed interviews said they were planning on continuing to teach in the next year and that they weren’t going to leave the field, although one expressed thoughts of possibly leaving the field due to the pandemic. Participants on average in the survey neither agreed nor disagreed with feeling confident that their schools will address concerns they have in a timely manner moving forward. Of the five special education teachers that participated in interviews, four of them said that transparency is the number one thing that they need from their schools and their districts moving forward.
Chapter 5: Discussion

Summary of Study

This study utilizes a mixed-methods, convergent parallel design or triangulation design to evaluate quantitative data from participants’ survey responses and qualitative data from interviews with participants in two phases. A total of 15 participants responded to the 78-question online survey during phase one of the study and five of the fifteen respondents participated in phase two: the online interviews. The participants in the study were all special education teachers in Arizona during the Spring 2020 and Fall 2020 semesters. They were recruited via email to participate in this study. The results of the survey were evaluated by the distribution of responses and response means and standard deviations.

During phase two, five participants completed online interviews via Zoom and answered questions that followed up on the responses they gave to the online survey. These results were analyzed in accordance with the categories that were used in the interview structure and the categories developed through analytic coding to look for patterns in responses. This study evaluates how prepared special education teachers feel they were for the demands of e-learning, how special education teachers have dealt with these demands, what supports, and resources special education teachers received that were helpful as well as what resources and supports they feel they still need to continue to teach online, and how their self-efficacy beliefs and feelings of teacher burnout have been impacted during this transition.
Review of Findings

**Research Question 1.** The first research question in this study was: How were special education teachers in Arizona impacted by the transition to online learning during the pandemic? Most special education teachers that participated in the survey reported returning to their classroom to teach their students remotely in Fall 2020. On average, they somewhat agreed that they had a choice when returning to their classroom. Most of these teachers had at least some students return to the classroom in person with them at some point during the Fall 2020 semester. Participants on average described having more responsibilities during the pandemic compared to before. On average, participants explained that they had the supports and resources they needed to do their job effectively before the pandemic and they did not have all of the supports and resources they needed after the pandemic began.

All participants reported using more technology and using it differently during the pandemic. Nearly 40% of the interview participants reported having the resources they needed to conduct their class using technology during the pandemic, compared to 80% that reported they had the resources they needed to incorporate technology into their class before the pandemic. Participants reported their communication with administrators at their schools and districts being less clear and regular after the pandemic. Participants expressed experiencing more frustration during the pandemic related to supports and resources, technology, and communication with administrators. Participants expressed being more concerned now for their students’ physical and mental health and welfare.
Four out of five of the interview participants described their district and schools providing them with few opportunities to share their opinion about decisions being made regarding the pandemic and how it always felt as though it didn’t matter what opinions were shared by teachers, the administrators had truly already made up their mind before the meeting. When participants were asked what they considered to be the best part of online learning during the pandemic, most said something about the exposure their students are receiving with technology is really beneficial because it teaches them life skills such as using Google suite and email, one said that their students enjoyed using and manipulating Google classroom, and another participant mentioned that the variety of educational websites and activities available now is a good aspect of pandemic learning.

**Research Question 2.** The second research question in this study was: Did special education teachers in Arizona feel prepared and supported during the transition to online learning during the pandemic? On average, most of the participants expressed feeling prepared after completing their teacher preparation program, including feeling prepared to use technology in the classroom. However, on average they agreed that they could have been prepared better by their program and they were not prepared for the possibility of teaching students remotely, conducting IEP meetings online or over the phone, or the demands of e-learning experienced during the pandemic in general. On average, teachers felt they had the needed professional development from their schools and districts before the pandemic to teach and use technology in their classrooms. These feelings decreased after the pandemic. Special education teachers on average reported not having the professional development needed to guide them through the demands of online learning or teaching students remotely during the pandemic. Some expressed no
professional development offered whatsoever and some explained they had very similar professional development to before the pandemic in terms of frequency, just on Zoom not in-person. Since special education teachers across Arizona participated in the study, there were a wide range of experiences with the district and school levels.

**Research Question 3.** The third research question in this study was: What supports and resources do special education teachers in Arizona need to continue to teach online during the pandemic? Participants indicated that they did not feel very confident that they were going to be supported in the upcoming semester with online learning. When asked what supports and resources they needed from their schools and districts moving forward, three of the five interview participants first said transparency is the most important thing they need. A participant described not knowing if they were going to be told after they went home for the day if they weren’t going to be allowed to come back tomorrow. One teacher with a particularly negative experience with their district administration had requested professional development be provided moving forward, not only for the special education teachers, but for the instructional staff and related service providers. This participant and another mentioned needing better communication, specifically from their district, moving forward. Only one participant expressed feeling they had everything they needed moving forward from their schools and districts; this participant was also the only one to express feeling confident they could communicate with both their school and district if needed during the pandemic. This is concerning because most teachers do not feel prepared and are not able to communicate with their administrators effectively to feel confident at their abilities to do their job.
**Research Question 4.** The fourth research question in this study was: How has the transition to online learning during the pandemic affected the self-efficacy beliefs of special education teachers in Arizona? On average, participants reported feeling good at their job more before the pandemic. After the pandemic began, only one interview participant reported feeling like they were good at their job. Participants felt they were less effective teaching their students and meeting their students’ needs on average after the pandemic. Many participants shared their experiences not being able to connect with their students as well online than they could in person. A few specifically emphasized their use of hands-on activities and group work in the classroom before the pandemic. They on average agreed that their students thought of them as a good teacher before the pandemic and on average they somewhat agreed their students thought of them as a good teacher during the pandemic.

Almost half of the interview participants expressed feeling like they don’t know what they’re doing during the pandemic. Some explained that with this confusion and nowhere to turn to for answers, they spent a lot of their own time and resources finding solutions. Another participant explained that they feel they never stop doing their job: they come to work earlier than they ever have now during the pandemic, they leave late, and they still find themselves working most of the time they’re home. A participant expressed that the pandemic made them question whether or not they would have the stamina, energy, and positivity to continue doing this for another 20 years. Another participant shared that they now viewed their job as something they *have* to do instead of something they *want* to do.
These descriptions of teachers’ experiences and feelings during the pandemic are similar to descriptions of teacher burnout, defined as a syndrome of emotional exhaustion, depersonalization, and decreased personal accomplishment (Maslach et al., 1996). Teachers are describing feeling tired and overworked, feeling like they are not connecting with their students, and not meeting their students’ needs during the pandemic. These feelings could contribute to greater feelings of teacher burnout later on in the pandemic.

**Research Question 5.** The fifth research question in this study was: How has the transition to online learning during the pandemic contributed to the future career plans of special education teachers in Arizona? All participants described teaching during the pandemic to be a challenge, however, despite participants describing signs of teacher burnout in their interviews, none of the participants interviewed said they were going to leave the field; they all said they were going to continue teaching. One participant of the five interviewed expressed thinking of doing other things outside of the classroom explaining that over the years of working at their school, the more outside influences, demands, and responsibilities they had, the more they worried about how long they could continue to keep doing this job.

**Implications**

The results of this study may have implications in many areas. First, schools and school districts may take these experiences and perceptions of special education teachers into consideration when planning for the future of education during the pandemic in hopes to address any needs their special education teachers and personnel may have during the pandemic. Those organizing and developing teacher preparation programs
may also take these experiences and perceptions into consideration when revising their programs. Not only could the information regarding the pandemic be useful, but participants expressed feeling like their teacher preparation programs could have better prepared them for teaching in a few areas before the pandemic began as well. Due to the feelings of needing to be more prepared by participants and decreased feelings of teacher self-efficacy in this study, programs could consider increasing the amount and variety of preparation for online teaching and providing services online for instances where special education students may not be able to come into the classroom. In these instances, it would be important for teacher preparation programs to consider preparing candidates for the possibility of teaching students with a student’s parent or guardian right next to them and the challenges that could bring for classroom management and student progress.

**Recommendations for Future Research**

Although there was significant data collected during this study regarding special education teachers’ experiences during the pandemic, future research should further examine these experiences and the affects they have had on special education teachers in the long term. Studies encompassing more special education teachers within Arizona and special education teachers across the United States are needed to fully understand how special education teachers were affected, what they needed, how they were supported, and how they coped with these challenges. Future studies should incorporate more special education teachers from different cultural and ethnic backgrounds, different levels of experience teaching, and different age ranges.

Future studies should continue to examine how the experiences of special education teachers are impacted and what challenges they face as the pandemic evolves
with each semester. It would be interesting to investigate if there are any differences in experiences, supports and resources, or self-efficacy beliefs between different semesters in the pandemic, or between teachers of different races, genders, or experience teaching. An additional area of interest for further research is to explore how special education related service providers have handled the COVID-19 pandemic and how their role has changed for students.

Conclusions

The purpose of this study was to discover how teachers’ lives were changed during the pandemic by evaluating how prepared special education teachers felt they were for the demands of e-learning, how special education teachers dealt with these demands, what supports and resources special education teachers received that were helpful as well as what resources and supports they feel they still need to continue to teach online, and how their self-efficacy beliefs and feelings of leaving the field have been impacted during this transition. The results show that special education teachers faced a lot of challenges during the transition to online learning at the start of the pandemic. Participants had more responsibilities during the pandemic compared to before and on average had less supports and resources to do their job effectively compared to before the pandemic. Less than half of the participants felt they had the resources they needed to conduct their classroom using technology during the pandemic. The majority described not having opportunities to truly have their opinions heard and considered by administrators during the pandemic. They reported, on average, less clear and regular communication from their administrators during the pandemic and more frustration due to the lack of communication and supports and resources. They expressed feeling
indicators of teacher burnout, such as exhaustion, depersonalization, and decreased achievement, however none of them reported intentions to leave the field soon.
Appendix A: Survey Questions

Special Education Teacher Experiences and Efficacy during a Pandemic (COVID-19)

Start of Block: INFORMED CONSENT

Q82 Informed Consent Form Linked Here

Q75 Do you consent to participate in this part of this research study?

Consenting at this stage means that you are consenting to participate in this survey and agree to all terms described in the Informed Consent document attached above.

Additionally, by consenting, you are stating that you are at least 18 years of age. By saying “I consent”, you are acknowledging that you have read (or someone has read to you) this form, and you are aware that you are being asked to participate in a research study.

You are also acknowledging that you have had the opportunity to ask questions, that all questions have been answered to your satisfaction, that your participation is voluntary, and that you are NOT giving up any legal rights by consenting to participate.

You are permitted and encouraged to print a copy of this page for your records.

Yes (1)
No (2)

End of Block: INFORMED CONSENT

Start of Block: GENERAL

Q68 Please provide your email address in the box below. Your email address will only be used to contact you if you are selected for an interview. This information will not be stored with your survey responses.

________________________________________

Q1 How many years have you been teaching?
  Less than 1 year (1)
  1 year (2)
  2 years (3)
  3 years (4)
  4 years (5)
  5-10 years (6)
  11-15 years (7)
  16-20 years (8)
  More than 20 years (9)

Q2 How many years have you been teaching in your current position?
  Less than 1 year (1)
  1 year (2)
  2 years (3)
  3 years (4)
  4 years (5)
  5-10 years (6)
Q3 Select all levels of education you have completed: 
(Select multiple)
- 2-year college degree (e.g., Associate's) (1)
- 4-year college degree (e.g., Bachelor's) (2)
- Master's degree (e.g., MA, MS) (3)
- Professional degree (e.g., MBA, MA, JD, MD) (4)
- Doctoral degree (e.g., PhD, DEd) (5)
- Advanced Certificate (6)
- Other (7) ________________________________________________

Q4 Which racial group do you most identify with?
- African American or Black (1)
- American Indian or Alaska Native (2)
- Asian American or Asian (3)
- Hispanic or Latinx (4)
- Middle Eastern or North African (5)
- Pacific Islander (6)
- White or Caucasian (7)
- An identity not listed, self-identify (8)

Prefer not to answer (9)

Q5 Which gender do you most identify with?
- Agender (1)
- Genderqueer or gender nonconforming (2)
- Man (3)
- Non-binary (4)
- Transgender (5)
- Woman (6)
- An identity not listed, self-identify (7)

Prefer not to answer (8)

Q44 How old are you?
- 18-25 years old (1)
- 26-33 years old (2)
- 34-41 years old (3)
- 42-49 years old (4)
- 50+ years old (5)
- Prefer not to answer (6)

Q6 How many students did you have in your case load in the Spring 2020 semester?
- 1-5 (1)
- 6-10 (2)
- 11-15 (3)
- 16-20 (4)
- 21-25 (5)
- 26-30 (6)
- 31-35 (7)
- Other (8) ________________________________________________
Q7 How many students do you have in your case load this semester (Fall 2020)?
1-5 (1)
6-10 (2)
11-15 (3)
16-20 (4)
21-25 (5)
26-30 (6)
31-35 (7)
Other (8) ________________________________________________

Q46 How would you describe your classroom type?
Resource (1)
Self-Contained (2)
Other (3) ________________________________________________

Q47 What grade levels do you teach? (Select multiple)
Preschool (1)
Kindergarten (2)
1st grade (3)
2nd grade (4)
3rd grade (5)
4th grade (6)
5th grade (7)
6th grade (8)
7th grade (9)
8th grade (10)
9th grade (11)
10th grade (12)
11th grade (13)
12th grade (14)

End of Block: GENERAL
Start of Block: TECHNOLOGY

Q38 Before the pandemic, I used technology on a weekly basis in my classroom.
Strongly disagree (1)
Disagree (2)
Somewhat disagree (3)
Neither agree nor disagree (4)
Somewhat agree (5)
Agree (6)
Strongly agree (7)

Q41 During the pandemic, I used technology on a weekly basis in my classroom.
Strongly disagree (1)
Disagree (2)
Somewhat disagree (3)
Neither agree nor disagree (4)
Somewhat agree (5)
Agree (6)
Strongly agree (7)
Q39 Before the pandemic, I used technology on a daily basis in my classroom.
   Strongly disagree (1)
   Disagree (2)
   Somewhat disagree (3)
   Neither agree nor disagree (4)
   Somewhat agree (5)
   Agree (6)
   Strongly agree (7)

Q42 During the pandemic, I used technology on a daily basis in my classroom.
   Strongly disagree (1)
   Disagree (2)
   Somewhat disagree (3)
   Neither agree nor disagree (4)
   Somewhat agree (5)
   Agree (6)
   Strongly agree (7)

Q40 Before the pandemic, technology was essential in my classroom.
   Strongly disagree (1)
   Disagree (2)
   Somewhat disagree (3)
   Neither agree nor disagree (4)
   Somewhat agree (5)
   Agree (6)
   Strongly agree (7)

Q43 During the pandemic, technology was essential in my classroom.
   Strongly disagree (1)
   Disagree (2)
   Somewhat disagree (3)
   Neither agree nor disagree (4)
   Somewhat agree (5)
   Agree (6)
   Strongly agree (7)

End of Block: TECHNOLOGY
Start of Block: COMMUNICATION

Q21 Before the pandemic, I received clear and regular communication from my school district.
   Strongly disagree (1)
   Disagree (2)
   Somewhat disagree (3)
   Neither agree nor disagree (4)
   Somewhat agree (5)
   Agree (6)
   Strongly agree (7)

Q22 During the pandemic, I received clear and regular communication from my school district.
   Strongly disagree (1)
   Disagree (2)
   Somewhat disagree (3)
   Neither agree nor disagree (4)
   Somewhat agree (5)
   Agree (6)
   Strongly agree (7)
Q23 Before the pandemic, I received clear and regular communication from the administrators at my school.

- Strongly disagree (1)
- Disagree (2)
- Somewhat disagree (3)
- Neither agree nor disagree (4)
- Somewhat agree (5)
- Agree (6)
- Strongly agree (7)

Q24 During the pandemic, I received clear and regular communication from the administrators at my school.

- Strongly disagree (1)
- Disagree (2)
- Somewhat disagree (3)
- Neither agree nor disagree (4)
- Somewhat agree (5)
- Agree (6)
- Strongly agree (7)

Q25 Before the pandemic, I knew who to reach out to if I had a question or comment regarding policy or procedure at my school.

- Strongly disagree (1)
- Disagree (2)
- Somewhat disagree (3)
- Neither agree nor disagree (4)
- Somewhat agree (5)
- Agree (6)
- Strongly agree (7)

Q26 During the pandemic, I knew who to reach out to if I had a question or comment regarding policy or procedure at my school.

- Strongly disagree (1)
- Disagree (2)
- Somewhat disagree (3)
- Neither agree nor disagree (4)
- Somewhat agree (5)
- Agree (6)
- Strongly agree (7)

Q31 Before the pandemic, I regularly communicated with other teachers at my school.

- Strongly disagree (1)
- Disagree (2)
- Somewhat disagree (3)
- Neither agree nor disagree (4)
- Somewhat agree (5)
- Agree (6)
- Strongly agree (7)

Q32 During the pandemic, I regularly communicated with other teachers at my school.

- Strongly disagree (1)
- Disagree (2)
- Somewhat disagree (3)
- Neither agree nor disagree (4)
- Somewhat agree (5)
Agree (6)
Strongly agree (7)

Q27 Before the pandemic, I regularly communicated with my students' parents.
Strongly disagree (1)
Disagree (2)
Somewhat disagree (3)
Neither agree nor disagree (4)
Somewhat agree (5)
Agree (6)
Strongly agree (7)

Q28 Please select all the methods you used to communicate with your students' parents before the pandemic.
(Select multiple)
Email (1)
Phone calls (2)
Text messages (3)
Written communication sent home with student (4)
Written communication mailed home (5)
In-person meetings (6)
Online meetings (Zoom, Skype, video-conferencing) (7)
School website/program/app (8)
Other (9) ____________________________________________

Q29 During the pandemic, I regularly communicated with my students' parents.
Strongly disagree (1)
Disagree (2)
Somewhat disagree (3)
Neither agree nor disagree (4)
Somewhat agree (5)
Agree (6)
Strongly agree (7)

Q30 Please select all the methods you used to communicate with your students' parents during the pandemic.
(Select multiple)
Emails (1)
Phone calls (2)
Text messages (3)
Written communication sent home with student (4)
Written communication mailed home (5)
In-person meetings (6)
Online meetings (Zoom, Skype, video-conferencing) (7)
A website/program/app used by the school (8)
Other (9) ____________________________________________

Q50 Before the pandemic, I regularly communicated with my students.
Strongly disagree (1)
Disagree (2)
Somewhat disagree (3)
Neither agree nor disagree (4)
Somewhat agree (5)
Agree (6)
Strongly agree (7)
Q51 Please select all the methods you used to communicate with your students before the pandemic. (Select multiple)
   Emails (1)
   Phone calls (2)
   Text messages (3)
   Written communication sent home with student (4)
   Written communication mailed home (5)
   In-person meetings (6)
   Online meetings (Zoom, Skype, video-conferencing) (7)
   A website/program/app used by the school (8)
   Other (9) ________________________________________________

Q49 During the pandemic, I regularly communicated with my students.
   Strongly disagree (1)
   Disagree (2)
   Somewhat disagree (3)
   Neither agree nor disagree (4)
   Somewhat agree (5)
   Agree (6)
   Strongly agree (7)

Q52 Please select all the methods you used to communicate with your students during the pandemic. (Select multiple)
   Emails (1)
   Phone calls (2)
   Text messages (3)
   Written communication sent home with student (4)
   Written communication mailed home (5)
   In-person meetings (6)
   Online meetings (Zoom, Skype, video-conferencing) (7)
   A website/program/app used by the school (8)
   Other (9) ________________________________________________

End of Block: COMMUNICATION
Start of Block: SUPPORTS / RESOURCES

Q33 Before the pandemic, my school district provided me with the supports and resources necessary for me to teach and do my job.
   Strongly disagree (1)
   Disagree (2)
   Somewhat disagree (3)
   Neither agree nor disagree (4)
   Somewhat agree (5)
   Agree (6)
   Strongly agree (7)

Q34 During the pandemic, my school district provided me with the supports and resources necessary for me to teach and do my job.
   Strongly disagree (1)
   Disagree (2)
   Somewhat disagree (3)
   Neither agree nor disagree (4)
   Somewhat agree (5)
   Agree (6)
   Strongly agree (7)
Q35 Before the pandemic, my school provided me with the supports and resources necessary for me to teach and do my job.
   Strongly disagree (1)
   Disagree (2)
   Somewhat disagree (3)
   Neither agree nor disagree (4)
   Somewhat agree (5)
   Agree (6)
   Strongly agree (7)

Q36 During the pandemic, my school provided me with the supports and resources necessary for me to teach and do my job.
   Strongly disagree (1)
   Disagree (2)
   Somewhat disagree (3)
   Neither agree nor disagree (4)
   Somewhat agree (5)
   Agree (6)
   Strongly agree (7)

Q18 My school provided me with the resources necessary to conduct e-learning lessons from a safe environment.
   Strongly disagree (1)
   Disagree (2)
   Somewhat disagree (3)
   Neither agree nor disagree (4)
   Somewhat agree (5)
   Agree (6)
   Strongly agree (7)

Q19 My school provided my students with the resources necessary to attend e-learning classes from a safe environment.
   Strongly disagree (1)
   Disagree (2)
   Somewhat disagree (3)
   Neither agree nor disagree (4)
   Somewhat agree (5)
   Agree (6)
   Strongly agree (7)
   I don't know (8)

Q37 My school district provided me with resources that were helpful for adapting to the new e-learning demands beginning in the Spring 2020 semester.
   Strongly disagree (1)
   Disagree (2)
   Somewhat disagree (3)
   Neither agree nor disagree (4)
   Somewhat agree (5)
   Agree (6)
   Strongly agree (7)

Q20 My school provided me with resources that were helpful for adapting to the new e-learning demands beginning in the Spring 2020 semester.
   Strongly disagree (1)
   Disagree (2)
Somewhat disagree (3)
Neither agree nor disagree (4)
Somewhat agree (5)
Agree (6)
Strongly agree (7)

End of Block: SUPPORTS / RESOURCES
Start of Block: VOICE / CONTROL

Q53 Do you feel that you had opportunities to share your opinion about decisions being made in general in your school before the pandemic began?
Strongly disagree (1)
Disagree (2)
Somewhat disagree (3)
Neither agree nor disagree (4)
Somewhat agree (5)
Agree (6)
Strongly agree (7)

Q14 During the pandemic, my school district provided opportunities for teachers to share thoughts and opinions related to the pandemic and communicated these opportunities to teachers in a timely manner.
Strongly disagree (1)
Disagree (2)
Somewhat disagree (3)
Neither agree nor disagree (4)
Somewhat agree (5)
Agree (6)
Strongly agree (7)

Q15 During the pandemic, my school provided opportunities for teachers to share thoughts and opinions related to the pandemic and communicated these opportunities to teachers in a timely manner.
Strongly disagree (1)
Disagree (2)
Somewhat disagree (3)
Neither agree nor disagree (4)
Somewhat agree (5)
Agree (6)
Strongly agree (7)

Q16 I feel I had control over the decisions made regarding teachers in my school district.
Strongly disagree (1)
Disagree (2)
Somewhat disagree (3)
Neither agree nor disagree (4)
Somewhat agree (5)
Agree (6)
Strongly agree (7)

Q17 I feel I had control over the decisions made regarding teachers at my school.
Strongly disagree (1)
Disagree (2)
Somewhat disagree (3)
Neither agree nor disagree (4)
Somewhat agree (5)
Agree (6)
Strongly agree (7)
Q45 I feel I had control over my daily and weekly routines in my classroom before the pandemic.
   Strongly disagree (1)
   Disagree (2)
   Somewhat disagree (3)
   Neither agree nor disagree (4)
   Somewhat agree (5)
   Agree (6)
   Strongly agree (7)

Q46 I feel I had control over my daily and weekly routines in my classroom during the pandemic.
   Strongly disagree (1)
   Disagree (2)
   Somewhat disagree (3)
   Neither agree nor disagree (4)
   Somewhat agree (5)
   Agree (6)
   Strongly agree (7)

Q84 Did you return to the classroom to teach your students remotely during the Fall 2020 semester?
   Yes (1)
   No (2)

Display This Question:
If Did you return to the classroom to teach your students remotely during the Fall 2020 semester? = Yes

Q85 Was it your choice to return to your classroom to teach remotely during the Fall 2020 semester?
   Yes (1)
   Somewhat (2)
   No (3)

Q83 Did you return to your classroom to teach with your students during the Fall 2020 semester?
   Yes (1)
   No (2)

Display This Question:
If Did you return to your classroom to teach with your students during the Fall 2020 semester? = Yes

Q86 Was it your choice to return to your classroom with your students to teach during the Fall 2020 semester?
   Yes (1)
   Somewhat (2)
   No (3)

End of Block: VOICE / CONTROL
Start of Block: PREPAREDNESS

Q54 Did you attend a teacher preparation program?
   Yes (1)
   No (2)
   I don't know (3) ________________________________

Q55 I feel my teacher preparation program gave me the knowledge and skills I needed to teach in the classroom.
   Strongly disagree (1)
   Disagree (2)
Somewhat disagree (3)
Neither agree nor disagree (4)
Somewhat agree (5)
Agree (6)
Strongly agree (7)
I don't know (8)

Q57 I feel my teacher preparation program could have better prepared me for teaching.
   Strongly disagree (1)
   Disagree (2)
   Somewhat disagree (3)
   Neither agree nor disagree (4)
   Somewhat agree (5)
   Agree (6)
   Strongly agree (7)
   I don't know (8)

Q11 I feel my teacher preparation program gave me the knowledge and skills I needed to use technology in the classroom, before the pandemic.
   Strongly disagree (1)
   Disagree (2)
   Somewhat disagree (3)
   Neither agree nor disagree (4)
   Somewhat agree (5)
   Agree (6)
   Strongly agree (7)
   I don't know (8)

Q56 I feel my teacher preparation program prepared me for the possibility of teaching students remotely.
   Strongly disagree (1)
   Disagree (2)
   Somewhat disagree (3)
   Neither agree nor disagree (4)
   Somewhat agree (5)
   Agree (6)
   Strongly agree (7)
   I don't know (8)

Q92 I feel my teacher preparation program prepared me for the possibility of conducting IEP meetings online.
   Strongly disagree (1)
   Disagree (2)
   Somewhat disagree (3)
   Neither agree nor disagree (4)
   Somewhat agree (5)
   Agree (6)
   Strongly agree (7)

Q12 I feel my teacher preparation program prepared me for the demands of e-learning I experienced during the pandemic.
   Strongly disagree (1)
   Disagree (2)
   Somewhat disagree (3)
   Neither agree nor disagree (4)
   Somewhat agree (5)
   Agree (6)
95

Q87 I feel I had professional development opportunities through my school and/or school district that prepared me for the demands of teaching in the classroom before the pandemic.

- Strongly disagree (1)
- Disagree (2)
- Somewhat disagree (3)
- Neither agree nor disagree (4)
- Somewhat agree (5)
- Agree (6)
- Strongly agree (7)

Q88 I feel I had professional development opportunities through my school and/or school district that prepared me for the demands of teaching in the classroom during the pandemic.

- Strongly disagree (1)
- Disagree (2)
- Somewhat disagree (3)
- Neither agree nor disagree (4)
- Somewhat agree (5)
- Agree (6)
- Strongly agree (7)

Q89 I feel I had professional development opportunities through my school and/or school district that prepared me for teaching students remotely.

- Strongly disagree (1)
- Disagree (2)
- Somewhat disagree (3)
- Neither agree nor disagree (4)
- Somewhat agree (5)
- Agree (6)
- Strongly agree (7)

Q90 I feel I had professional development opportunities through my school and/or school district that prepared me for using technology in the classroom before the pandemic.

- Strongly disagree (1)
- Disagree (2)
- Somewhat disagree (3)
- Neither agree nor disagree (4)
- Somewhat agree (5)
- Agree (6)
- Strongly agree (7)

Q91 I feel I had professional development opportunities through my school and/or school district that prepared me for using technology in the classroom during the pandemic.

- Strongly disagree (1)
- Disagree (2)
- Somewhat disagree (3)
- Neither agree nor disagree (4)
- Somewhat agree (5)
- Agree (6)
- Strongly agree (7)
Q58 I feel I was good at my job before the pandemic.
   Strongly disagree (1)
   Disagree (2)
   Somewhat disagree (3)
   Neither agree nor disagree (4)
   Somewhat agree (5)
   Agree (6)
   Strongly agree (7)

Q59 I feel I was effective at teaching my students before the pandemic.
   Strongly disagree (1)
   Disagree (2)
   Somewhat disagree (3)
   Neither agree nor disagree (4)
   Somewhat agree (5)
   Agree (6)
   Strongly agree (7)

Q65 I feel I was effective at meeting my students' needs before the pandemic.
   Strongly disagree (1)
   Disagree (2)
   Somewhat disagree (3)
   Neither agree nor disagree (4)
   Somewhat agree (5)
   Agree (6)
   Strongly agree (7)

Q63 Before the pandemic, I feel like my students thought of me as a good teacher.
   Strongly disagree (1)
   Disagree (2)
   Somewhat disagree (3)
   Neither agree nor disagree (4)
   Somewhat agree (5)
   Agree (6)
   Strongly agree (7)

Q60 I feel I am good at my job now, during the pandemic.
   Strongly disagree (1)
   Disagree (2)
   Somewhat disagree (3)
   Neither agree nor disagree (4)
   Somewhat agree (5)
   Agree (6)
   Strongly agree (7)

Q61 I feel I am effective at teaching my students now, during the pandemic.
   Strongly disagree (1)
   Disagree (2)
   Somewhat disagree (3)
   Neither agree nor disagree (4)
   Somewhat agree (5)
   Agree (6)
   Strongly agree (7)
Q66 I feel I am effective at meeting my students' needs now, during the pandemic.
   Strongly disagree (1)
   Disagree (2)
   Somewhat disagree (3)
   Neither agree nor disagree (4)
   Somewhat agree (5)
   Agree (6)
   Strongly agree (7)

Q62 Now, during the pandemic, I feel like my students think of me as a good teacher.
   Strongly disagree (1)
   Disagree (2)
   Somewhat disagree (3)
   Neither agree nor disagree (4)
   Somewhat agree (5)
   Agree (6)
   Strongly agree (7)

Q64 I feel like I continue to get better at teaching every day.
   Strongly disagree (1)
   Disagree (2)
   Somewhat disagree (3)
   Neither agree nor disagree (4)
   Somewhat agree (5)
   Agree (6)
   Strongly agree (7)

End of Block: EFFICACY
Start of Block: MOVING FORWARD

Q8 I feel confident that my school will provide me with the resources I need to continue providing e-learning opportunities to my students moving forward in the 2020-2021 school year.
   Strongly disagree (1)
   Disagree (2)
   Somewhat disagree (3)
   Neither agree nor disagree (4)
   Somewhat agree (5)
   Agree (6)
   Strongly agree (7)

Q10 I feel confident that my school will address any concerns that I communicate to them in a timely manner moving forward in the 2020-2021 school year.
   Strongly disagree (1)
   Disagree (2)
   Somewhat disagree (3)
   Neither agree nor disagree (4)
   Somewhat agree (5)
   Agree (6)
   Strongly agree (7)

Q9 I feel confident that I will be able to continue providing e-learning opportunities to my students moving forward in the 2020-2021 school year.
   Strongly disagree (1)
   Disagree (2)
   Somewhat disagree (3)
Neither agree nor disagree (4)
Somewhat agree (5)
Agree (6)
Strongly agree (7)

End of Block: MOVING FORWARD
Appendix B: Informed Consent Form for Phase One: Survey

University of Arizona
Consent to Participate in Research

Study Title: Special Education Teacher Experiences and Efficacy during a Pandemic (COVID-19)

Principal Investigator: Raina Williams

Summary of the research
This is a consent form for participation in a research project. Your participation in this research study is voluntary and you do not have to participate. This document contains important information about this study and what to expect if you decide to participate. Please consider the information carefully. Feel free to ask questions before making your decision whether or not to participate.

Why is this study being done?
In response to COVID-19, public school districts moved education to online formats, presenting challenges and inequities in resources and supports for special education teachers and their students. This study will explore your experiences, emotions, coping, efficacy, challenges, concerns, and needed resources and supports since the COVID-19 pandemic began.

Your responses will help researchers learn what district and instructional strategies, resources, supports, and communication have been most and least effective for you, as well as what kinds of stress, emotions, and beliefs you are experiencing. Results from this study could shape how special education teacher preparation programs and professional development opportunities are designed and what resources and supports are made available to teachers through school districts in the future.

What will happen if I take part in this study?
Your participation in this study is voluntary. If you consent to participate, you will be asked to take part in an online survey that will last approximately 30 minutes. After review of your responses, you may also be asked to participate in an electronic interview that lasts no more than 60 minutes. The survey and interview will be conducted in English.

You must have access to a computer with internet or a smart phone to participate in the online survey.

Before the survey begins, you will be asked if you have: a.) read this consent form, b.) ask if you have any questions about this information, c.) confirm any questions your questions have been answered to your satisfaction, and d.) ask for your consent to participate in the survey.
If you consent to continue with the survey, you will be asked questions about your experiences during the COVID-19 pandemic. The survey questions will focus on strategies used by your school district and the resources and supports provided by your school district, as well as your experiences, emotions, coping, efficacy, concerns, and needed resources and supports. Some questions may cause you to reflect on your feelings about the current pandemic and how this has impacted you.

**How long will I be in the study?**
This research study includes two parts: an online survey and an online interview. Both parts of the study are expected to be completed by mid-November 2020. Your participation in the survey is expected to require a time commitment of approximately 30 minutes. If you participate in the survey, you may be asked to participate in the online interview. Your participation in the interview is expected to require a time commitment of no more than one hour. Participating in the survey does not mean that you have to participate in the interview. You may stop participating in the survey and/or interview for this project at any time without penalty.

**Can I stop being in the study?**
Participation in this study is voluntary. If you decide to take part in the study, you may choose to complete just the survey and not the interview, if selected for an interview. You may also choose to leave the study at any time. No matter what decision you make, there will be no penalty to you. Your decision will not affect your future relationship with the University of Arizona. If you are a student or employee at the University of Arizona, your decision will not affect your grades or employment status.

**What risks or benefits can I expect from being in the study?**
There are no expected risks to you as a result of participating in this study. Through answering these questions, you may learn more about how you approached the challenges presented by the pandemic, and the impact that the pandemic has had on your life and future career plans. A possible, yet minimal risk, of participation is that thinking about these issues may cause you stress. If you feel stressed by any of the questions asked, you can choose not to respond to the question, to take a short break, and/or stop participating immediately. You do not have to answer anything you do not want to.

Possible benefits of participating in this study include having the opportunity to share your experiences and have your opinions heard, and the knowledge that the researchers will communicate your responses to possibly inform development of teacher preparation programs and district plans moving forward.

For questions, concerns, or complaints about this study or your rights as a participant, contact information for the principal investigator, Raina Williams, and the Human Subjects Protection Program is at the end of this informed consent form.

**Counseling Resources**
We strongly encourage individuals experiencing stress that interferes with daily functioning, to
contact a mental health expert. Some counseling resources that may be helpful are below:

<table>
<thead>
<tr>
<th>Resources</th>
<th>Phone</th>
<th>Link</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Community Wide Crisis Line</td>
<td>(520) 622-6000 or 1 (866) 495-6735</td>
<td><a href="http://www.namisa.org/crisis-information.html">http://www.namisa.org/crisis-information.html</a></td>
<td>Publicly funded crisis hotline</td>
</tr>
<tr>
<td>Warm Line</td>
<td>(520) 770-9909 or 1 (844) 733-9912 8am-midnight Daily</td>
<td><a href="http://www.namisa.org/crisis-information.html">http://www.namisa.org/crisis-information.html</a></td>
<td>Publicly funded peer support line (non-emergency).</td>
</tr>
<tr>
<td>University of Arizona CAPS</td>
<td>520-621-3334 M-F, 9am-3:30pm</td>
<td><a href="https://health.arizona.edu/getting-started-caps">https://health.arizona.edu/getting-started-caps</a></td>
<td>Paid service for UA students</td>
</tr>
</tbody>
</table>

**Will I be paid for participating in the study or experience any costs?**
Aside from the time required to participate in the research activities described above, there are no costs for taking part in the study. You will not be compensated for participating in this study.

**Will my study-related information be kept confidential?**
Your survey responses will be assigned a unique ID. Your email address that you provide in the survey will be stored with this unique ID in a separate file from all responses collected. The sole purpose of collecting your email address is to contact you in the event that you are selected to be invited to participate in the interview. Only this unique ID will appear in the same files as your survey responses. Your name and contact information will never appear on the same document or in the same file as any responses or data collected from you. Thus, there will be no link between your email address and your survey responses whatsoever and your responses will remain anonymous and confidential. Only the principal investigator will have access to the file containing your contact information and unique ID code.

The principal investigator will upload your coded survey responses to an encrypted cloud-based server, which requires a password to log into, UA Box. The principal investigator will be the only individual with access to your responses. Once the PI completes all of the interviews for the second portion of this study, the file containing your email address will be permanently erased from Box@UA, making all your data de-identified. De-identified survey responses and interview transcripts will be kept in Box@UA for 6 years as required by the University of Arizona. Your data will not be used or shared for future research.

The information that you provide in the study will be handled confidentially. However, there may be circumstances where this information must be released or shared as required by law. The University of Arizona Institutional Review Board may review the research records for monitoring purposes.
For questions, concerns, or complaints about the study you may contact Raina Williams at rainawilliams@email.arizona.edu.

For questions about your rights as a participant in this study or to discuss other study-related concerns or complaints with someone who is not part of the research team, you may contact the Human Subjects Protection Program at 520-626-6721 or online at http://rgw.arizona.edu/compliance/human-subjects-protection-program.

An Institutional Review Board responsible for human subjects research at The University of Arizona reviewed this research project and found it to be acceptable, according to applicable state and federal regulations and University policies designed to protect the rights and welfare of participants in research.

**Consent**
This document is being sent to you in advance of the survey. You will be asked before you begin the survey if you consent to participate in this study. Consenting at this stage means that you are consenting to participate in this survey and agree to all terms described in this document.

Additionally, by consenting, you are stating that you are at least 18 years of age. By saying “I consent”, you are acknowledging that you have read (or someone has read to you) this form, and you are aware that you are being asked to participate in a research study.

You are also acknowledging that you have had the opportunity to ask questions, that all questions have been answered to your satisfaction, that your participation is voluntary, and that you are NOT giving up any legal rights by consenting to participate.

You are permitted and encouraged to print a copy of this page for your records.
Appendix C: Informed Consent Form for Phase Two: Interviews

University of Arizona
Consent to Participate in Research

Study Title: Special Education Teacher Experiences and Efficacy during a Pandemic (COVID-19)

Principal Investigator: Raina Williams

Summary of the research
This is a consent form for participation in a research project. Your participation in this research study is voluntary and you do not have to participate. This document contains important information about this study and what to expect if you decide to participate. Please consider the information carefully. Feel free to ask questions before making your decision whether or not to participate.

You are being asked to participate in this study because you previously participated in a survey for the first part of this study. Your participation in the interview is voluntary.

Why is this study being done?
In response to COVID-19, public school districts moved education to online formats, presenting challenges and inequities in resources and supports for special education teachers and their students. This study will explore your experiences, emotions, coping, efficacy, challenges, concerns, and needed resources and supports since the COVID-19 pandemic began.

Your responses will help researchers learn what district and instructional strategies, resources, supports, and communication have been most and least effective for you, as well as what kinds of stress, emotions, and beliefs you are experiencing. Results from this study could shape how special education teacher preparation programs and professional development opportunities are designed and what resources and supports are made available to teachers through school districts in the future.

What will happen if I take part in this study?
Your participation in this study is voluntary. If you consent to participate in an electronic interview that lasts no more than 60 minutes. The interview will be conducted in English.

You must have access to a computer with internet or a phone with good reception in order participate in the electronic interview. This phone can be a cell phone or a landline. With your permission, the interviewer will use Zoom to speak with you and audio and video record the interview. If you join the Zoom session using a phone, you will be charged by your service provider based on the rates of your phone service provider. If Zoom is problematic, the interviewer and/or project coordinator may discuss and use an alternative method, such as the
interviewer also using a phone. You must also have access to email to receive the information for the Zoom interview session.

Once the interview begins, the interviewer will: a.) ask you if you have read this consent form, b.) ask if you have any questions about this information, c.) answer any questions you have, d.) confirm your questions have been answered to your satisfaction, e.) ask for your verbal consent to participate in the interview, and f.) ask for your verbal consent to audio and video record the interview. If you are not comfortable with a video recording, but consent to audio recording, you may turn your video off in Zoom.

If you consent to continue with the interview, the interviewer will ask you questions about your experiences during the COVID-19 pandemic. The interview questions will focus on strategies used by your school district and the resources and supports provided by your school district, as well as your experiences, emotions, coping, efficacy, concerns, and needed resources and supports. The interview may include questions that follow up on responses you gave in the previously completed online survey. Some questions may cause you to reflect on your feelings about the current pandemic and how this has impacted you.

**How long will I be in the study?**
This research study includes two parts: an online survey and an online interview. Both parts of the study are expected to be completed by mid-November 2020. Your participation in this interview is expected to require a time commitment of no more than one hour. Participating in the survey does not mean that you have to participate in the interview. You may stop participating in the survey and/or interview for this project at any time without penalty.

**Can I stop being in the study?**
Participation in this study is voluntary. If you decide to take part in the study, you may choose to complete just the survey and not the interview. You may also choose to leave the study at any time. No matter what decision you make, there will be no penalty to you. Your decision will not affect your future relationship with the University of Arizona. If you are a student or employee at the University of Arizona, your decision will not affect your grades or employment status.

**What risks or benefits can I expect from being in the study?**
There are no expected risks to you as a result of participating in this study. Through answering interview questions, you may learn more about how you approached the challenges presented by the pandemic, and the impact that the pandemic has had on your life and future career plans. A possible, yet minimal risk, of participation is that thinking about these issues may cause you stress. If you feel stressed by any of the questions asked, you can choose not to respond to the question, to take a short break, and/or stop participating immediately. You do not have to answer anything you do not want to.

Possible benefits of participating in this study include having the opportunity to share your experiences and have your opinions heard, and the knowledge that the researchers
will communicate your responses to possibly inform development of teacher preparation programs and district plans moving forward.

For questions, concerns, or complaints about this study or your rights as a participant, contact information for the principal investigator, Raina Williams, and the Human Subjects Protection Program is at the end of this informed consent form.

**Counseling Resources**

We strongly encourage individuals experiencing stress that interferes with daily functioning, to contact a mental health expert. Some counseling resources that may be helpful are below:

<table>
<thead>
<tr>
<th>Resources</th>
<th>Phone</th>
<th>Link</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Community Wide Crisis Line</td>
<td>(520) 622-6000 or 1 (866) 495-6735</td>
<td><a href="http://www.namisa.org/crisis-information.html">http://www.namisa.org/crisis-information.html</a></td>
<td>Publicly funded crisis hotline</td>
</tr>
<tr>
<td>University of Arizona CAPS</td>
<td>520-621-3334 M-F, 9am-3:30pm</td>
<td><a href="https://health.arizona.edu/getting-started-caps">https://health.arizona.edu/getting-started-caps</a></td>
<td>Paid service for UA students</td>
</tr>
</tbody>
</table>

**Will I be paid for participating in the study or experience any costs?**

Aside from the time required to participate in the research activities described above, there are no costs for taking part in the study. You will not be compensated for participating in this study.

**Will my study-related information be kept confidential?**

With your permission, the researchers would like to audio and video record this interview, so that the discussion transcription automatically obtained through Zoom can be accurately checked. You will be asked to change your name in the interview to “Participant” before the recording begins and use fake names for any individuals you mention during the interview. Your name will not appear on the recording. Your name will not be in the transcript, in any notes or reports.

After the interview is complete, the PI will upload the audio and video recordings and the transcript from Zoom to an encrypted cloud-based server, which requires a password to log into, UA Box. The transcription will be checked for accuracy using the audio and video recordings by the PI in the week following the interview. Once the transcriptions can be accurately checked, the audio and video recordings will be permanently erased, leaving only the de-identified transcription of the interview. Once the PI completes all of the interviews, the file containing your email address will be permanently erased from Box@UA, making all data de-identifiable. De-identified survey responses and interview
transcripts will be kept in Box@UA for 6 years as required by the University of Arizona. Your data will not be used or shared for future research.

The information that you provide in the study will be handled confidentially. However, there may be circumstances where this information must be released or shared as required by law. The University of Arizona Institutional Review Board may review the research records for monitoring purposes.

For questions, concerns, or complaints about the study you may contact Raina Williams at rainawilliams@email.arizona.edu.

For questions about your rights as a participant in this study or to discuss other study-related concerns or complaints with someone who is not part of the research team, you may contact the Human Subjects Protection Program at 520-626-6721 or online at http://rgw.arizona.edu/compliance/human-subjects-protection-program.

An Institutional Review Board responsible for human subjects research at The University of Arizona reviewed this research project and found it to be acceptable, according to applicable state and federal regulations and University policies designed to protect the rights and welfare of participants in research.

Consent
This document is being sent to you in advance of the interview. You will be asked at the interview if you consent to participate in this study. Consenting at this stage means that you are consenting to participate in this survey and agree to all terms described in this document.

Additionally, by consenting, you are stating that you are at least 18 years of age. By saying “I consent”, you are acknowledging that you have read (or someone has read to you) this form, and you are aware that you are being asked to participate in a research study.

You are also acknowledging that you have had the opportunity to ask questions, that all questions have been answered to your satisfaction, that your participation is voluntary, and that you are NOT giving up any legal rights by consenting to participate.

You are permitted and encouraged to print a copy of this page for your records.

Do you have any questions about any of the information that was contained in that consent form?
<IF YES> PI will answer and address questions.

Do you understand that you are being asked to participate in a research study?
<YES/NO>
Are you at least 18 years of age?  
<if NO> PI will conclude the interview at this point

Have you had the opportunity to ask questions and have had them answered to your satisfaction?  
<IF NO> PI will answer and address questions.

Do you understand that you are not giving up any legal rights by consenting to participate in this study?  
<YES/NO>

Do you voluntarily agree to participate in this study?  
<if NO> PI will conclude the interview at this point

Do you provide permission for me to audio and video record this interview?  
<if YES> PI will proceed to interview with recording
Appendix D: Interview Procedure and Questions

Procedure for Interviews:

During interview:

1. Interviewer starts meeting 5 minutes before start time

2. When the participant joins, interviewer greets participant, explains that nothing is being recorded yet, and introduces self to participant

3. Interviewer tells participant that once the recording begins, their name will not be said so that it does not end up on the recording or transcript and asks them to introduce themselves before the recording starts

4. Interviewer explains that there are two things that we need to cover before asking if you can start the recording.

5. Interviewer explains the first thing they will do is change how their names appear in Zoom to maintain privacy and anonymity. Interviewer instructs participant to click on “Participants” button, hover their mouse over their own name, and click on the “...”, click on “Rename”, and change their name to “Participant”. While they do this, interviewer changes their own name to “Interviewer”.

6. Interviewer explains the second thing they must do is review the consent form and ask them some questions.

7. Interviewer asks:
   a. Do you have any questions about any of the information that was contained in that consent form?
      <IF YES> Interviewer will answer and address questions.
      <IF NO> Interviewer will move to b.
   b. Have you had the opportunity to ask questions and have had them answered to your satisfaction?
      <IF NO> Interviewer will answer and address questions.
      <IF YES> Interviewer will move to c.
   c. Are you at least 18 years of age?
      <IF NO> Interviewer will conclude the interview.
      <IF YES> Interviewer will move to d.
   d. Do you understand that you are not giving up any legal rights by consenting to participate in this study? <YES/NO>
      <IF NO> Interviewer will answer and address questions.
<IF YES> Interviewer will move to e.
e. Do you voluntarily agree to participate in this study?
   <IF NO> Interviewer will conclude the interview.
   <IF YES> Interviewer will move on to f.
f. Do you provide permission for me to audio and video record this interview?
   <IF NO> Interviewer will conclude the interview.
   <IF YES> Interviewer will proceed with interview.

8. Interviewer tells participant they are about to begin the recording and begins the recording.

9. Interviewer begins asking Interview Questions below

   * If at any point the participant seems distressed:
     “Would you like to take a break for a few minutes?”
     “Thank you so much for sharing this with me.”
     “Do you have anything else you want to add, or do you want to move onto the next topic?”
     “If it is too uncomfortable to talk about this, or any topic throughout this interview, it is okay to move on to the next question”
     “Your answers are so helpful.”
     “That sounds difficult. I appreciate your honesty.”

**Interview Questions**

**GENERAL**

* Tell me what teaching was like before the pandemic
  o What did your day-to-day responsibilities look like?
  o What was your daily/weekly routine?
  o Describe your classroom and your students

* Tell me what teaching was like after the pandemic began
  o How did your responsibilities change after the pandemic?
  o What did your day-to-day responsibilities look like?
  o What was your daily/weekly routine?

**TECHNOLOGY**

* Tell me about how you used technology in your classroom before the pandemic
  o What methods of technology did you use?
  o How often did you use it?
* Did you feel you had the resources you needed to incorporate technology in your class before the pandemic?
* Describe how your use of technology has changed since the pandemic began.
  o What methods of technology do you use?
  o How often do you use it?
* Do you feel you have the resources you need now to conduct your classroom using technology?
* Is there anything else you would like to share about technology?

COMMUNICATION
* Tell me about how you communicated with administrators from your school or district before the pandemic
  o How often did you communicate with them or receive communication from them?
  o What did you communicate with them about?
  o How did this change after the pandemic?
* Do you feel confident you can communicate with your school district if needed?
* Do you feel confident you can communicate with your school if needed?
* Tell me about how you communicated with other teachers from your school before the pandemic
  o How often and what methods did you use to communicate with them?
  o What did you communicate with them about?
  o How did this change after the pandemic?
* Tell me about how you communicated with your students’ parents before the pandemic
  o How often and what methods did you use to communicate with them?
  o What did you communicate with them about?
  o How did this change after the pandemic?
* Tell me about how you communicated with your students before the pandemic
  o How often and what methods did you use to communicate with them?
  o What did you communicate with them about?
  o How did this change after the pandemic?
* Is there anything else you would like to share about your communication during the pandemic that we didn’t get to talk about yet?

SUPPORTS / RESOURCES
* Tell me about the supports and resources you received from your school and your school district before the pandemic.
* Describe what supports and resources were made available to you, that you know of, during the pandemic?
Did you use any of these resources or supports?
- How useful were these supports?

* Did you feel you had the supports necessary to do your job during the pandemic?
  - Were there any supports or resources you needed that you did not have?
* Is there anything else you want to share about supports and resources during the pandemic?

Thank you for sharing all of this with me! Are you okay to move on to the next section or would you like to take a break for a couple of minutes?

**VOICE / CONTROL**

* Tell me about the opportunities you had before the pandemic to share your opinion about decisions being made in your school and or district.
  - Do you feel you had an opportunity to share your opinion about decisions that were being made in your district and school regarding the pandemic?
  - Do you feel you had control over the decisions that impacted you at your school during the pandemic?
* Do you feel you had control over your daily and weekly routines before the pandemic?
  - How did this change after the pandemic?

* Did you go back into your classroom to teach during the Fall 2020 semester?
  - With students or remotely?
  - Was it your choice to return to your classroom?

**PREPAREDNESS / TEACHER PREPARATION PROGRAMS**

* Did you attend a teacher preparation program?
* Please describe as many classes as you can remember taking during your teacher preparation program. (course names/topics)
* How well would you say your teacher preparation program prepared you for…
  - teaching?
  - using technology in the classroom?
  - teaching students remotely?
  - IEP meetings occurring remotely?
* Tell me about professional development opportunities provided by your school and/or district
  - Did you have opportunities for professional development?
    - Did this change during the pandemic?
    - Did these opportunities prepare you for teaching?
    - Did they prepare you for the demands of e-learning you experienced during the pandemic?
* Is there anything you wish your teacher preparation program would’ve taught you about before you began teaching?
* Is there anything else you would like to share about your teacher preparation program or professional development opportunities?

Efficacy
* Tell me about how you felt about being a teacher before the pandemic.
  o Did you feel like you were good at your job?
  o Did you feel like you were effective at teaching your students?
  o Did you feel like you were effective at meeting your students’ needs?
* Tell me about how these feelings of yourself changed during the pandemic.
  o Do you feel good at your job now?
  o Do you feel you are effective at teaching your students now?
  o Do you feel you are effective at meeting your students’ needs now?
* Tell me about how you feel you’ve changed as a teacher since the pandemic began.

Moving Forward
* What are your current plans for teaching next semester/next year?
  o How has the pandemic affected your future career plans?
    • Goals
    • Timeline
    • Location
* What do you need from your school and/or district moving forward?
  o What would be ideal for you moving forward?
* What concerns do you have moving forward?
* What aspects of e-learning are working well for you and your class?
  o What do you like about e-learning?
  o What do you think your students like about e-learning?
* Is there anything else you would like to share?

* This completes the interview. Is there anything else you would like to share before I stop the recording?

10. After the last question (or if time runs out), interviewer stops the recording and tells the participant the recording has stopped.

11. Interviewer thanks participant for their time and willingness to share their experiences. Interviewer asks if the participant has any other questions before we end the meeting.
12. Interviewer answers any questions and ends Zoom meeting.

After interview:

1. Interviewer downloads Zoom files: video recording, audio file, and transcript
2. Interviewer opens and checks files on computer
3. Interviewer deletes recording from Zoom Cloud
4. Interviewer renames Zoom recording on computer with participant’s unique ID number (UID) (UID.mp4, UID.m4a, UID.vtt)
5. Interviewer uploads files to UA Box folder for that participant’s UID (Refresh the page and make sure the recording appears)
6. Interviewer deletes files from computer
References


Boe, E., & Cook, L. (2006). The chronic and increasing shortage of fully certified teachers in special and general education. https://repository.upenn.edu/cgi/viewcontent.cgi?article=1148&context=gse_pubs


Cruz, V. (2020a, April 5). *Classroom to class Zoom, Tucson teachers adjust to remote learning: Tia Tsosie-Begay.* This is Tucson. https://thisistucson.com/schools/
Cruz, V. (2020b, April 8) *Classroom to class Zoom, Tucson teachers adjust to remote learning: Mister Ben*. This is Tucson. https://thisistucson.com/schools/classroom-to-class-zoom-tucson-teachers-adjust-to-remote-learning-mister-ben/article_ce98c336-79d6-11ea-b062-bb9d28e1da2c.html

Cruz, V. (2020c, April 13). *Classroom to class Zoom, Tucson teachers adjust to remote learning: Kasie Betten*. This is Tucson. https://thisistucson.com/schools/classroom-to-class-zoom-tucson-teachers-adjust-to-remote-learning-kasie-betten/article_8c0914c0-7b74-11ea-9d6e-3ffccfa1e90.html


activities. *Journal of Workplace Learning, 18*(3), 141–156.

https://doi.org/10.1108/13665620610654577


https://doi.org/10.1016/S0735-004X(08)00006-2


http://dx.doi.org/10.1111/j.1464-0597.2008.00359.x


Tremmel, P., Myers, R., Brunow, D., & Hott, B. (2020). Educating students with
https://doi.org/10.1177/8756870520958114


https://doi.org/10.1016/0742-051X(90)90031-Y