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Novice Alternatively Certified Special Education Teachers’

Perceptions of Self-Efficacy to Teach

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**Novice Alternatively Certified Special Education Teachers’
Perceptions of Self-Efficacy to Teach**

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Treatise

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DEDICATION

For my mother, the person who taught me the true definition of “one’s life has meaning, only when in service to others”.

**Novice Alternatively Certified Special Education Teachers’
Perceptions of Self-Efficacy to Teach**

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The University of Texas at Austin, 2020

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The shortage of teachers, especially in specialized areas, such as special education, has prompted a shift in policy to expand the type of teacher preparation programs. Where once there existed only higher education preparation programs, today there are alternative routes to preparation and certification. The purpose of this study was to identify the perceptions and feelings of professional preparedness of alternatively certified special education teachers, as reflected in their initial years of practice. This study uses a mixed-methods research design and includes a survey and semi-structured interviews as the methodologies of choice. Findings from this study are: (1) novice traditionally certified teachers felt more thoroughly prepared to teach in the theoretical aspects of the profession (student learning pace, teaching to student multiple modalities, and student pedagogical knowledge) and making a direct positive impact on student learning and development; (2) novice alternatively certified novice teachers felt more prepared for the practical impact to student learning of the profession (multiple methods of assessment, instructional strategies, teaching a specialized curriculum, and using a core curriculum); and (3) overall, both sets of teachers felt that their initial program prepared them with the basic knowledge of the profession.

Table of Contents

Table of Contents	vi
List of Tables	viii
List of Figures	xi
CHAPTER ONE: INTRODUCTION TO THE STUDY	1
Problem Statement	3
Purpose of the Study	5
Significance of the Study	5
Conceptual Framework	6
Research Questions	10
Research Design.....	11
Limitations and Delimitations of the Study	11
Organization of the Study	12
Definition of Terms.....	12
Chapter Summary	14
CHAPTER TWO: LITERATURE REVIEW	15
Self-Efficacy and Perceived Preparedness.....	16
Defining Teacher Preparedness	18
Teacher Perceptions of Preparedness.....	19
Traditionally prepared pre-service teachers.....	19
Novice teachers.....	22
Alternatively certified novice and pre-service teachers.....	24
Special Education Teachers	25
Pre-service special education teachers.....	26
Novice special education teachers	28
Alternatively certified special education teachers	29
Summary: Perceptions of Preparedness.....	30
Chapter Summary	34
CHAPTER THREE: METHODOLOGY	35
Purpose of the Study	35
Research Questions	35
Research Process.....	36
Setting	37
Participants.....	37

Data Collection and Instrumentation	38
Data Analysis Procedures	40
Triangulation.....	42
Bias and Role of the Researcher	43
Ethical and Data Security Considerations.....	43
Trustworthiness	44
Chapter Summary	45
CHAPTER FOUR: DATA ANALYSIS.....	46
Data Collection	47
Survey Results	48
Demographics	49
Survey Item Analysis.....	53
Survey Responses' Item Analysis.....	104
Semi-Structured Interview Data	104
Chapter Summary and Conclusion	113
CHAPTER FIVE: DISCUSSION, IMPLICATIONS, AND CONCLUSIONS.....	115
Summary of Results.....	116
Implications for Practice	121
Recommendations for Further Research.....	122
Conclusion and Summary	123
Appendix A Data Collection Protocols.....	125
REFERENCES	135

List of Tables

Table 1 CAEP Standards	9
Table 2: Response Rate of All Participants	49
Table 3: Response Rate of Novice Special Education Teacher Participants	50
Table 4: Teacher Gender of All Participants	50
Table 5: Teacher Gender of Novice Special Education Teacher Participants	50
Table 6: Teaching Experience of All Participants	51
Table 7: Teaching Experience of Novice Special Education Teacher Participants	51
Table 8: Teaching Experience of All Participants	51
Table 9: Certification Type of All Participants	52
Table 10: Certification Type of Novice Special Education Teacher Participants	52
Table 11: School Type of All Participants	52
Table 12: School Type of Novice Special Education Teacher Participants	53
Table 13: Response Rate by All Participants	54
Table 14: Response Rate by Novice Special Education Teacher Participants	54
Table 15: (Comments) Response Rate by Novice Special Education Teacher Participants	55
Table 16: Response Rate by All Participants	56
Table 17: Response Rate by Novice Special Education Teacher Participants	57
Table 18: Comments	57
Table 19: Response Rate by All Participants	58
Table 20: Response Rate by Novice Special Education Teacher Participants	58
Table 21: Comments	59
Table 22: Response Rate by All Participants	59
Table 23: Response Rate by Novice Special Education Teacher Participants	60
Table 24: Comments	60
Table 25: Response Rate by All Participants	60
Table 26: Response Rate by Novice Special Education Teacher Participants	61
Table 27: Response Rate by All Participants	62
Table 28: Response Rate by Novice Special Education Teacher Participants	62
Table 29 Response Rate by All Participants	63
Table 30: Response Rate by Novice Special Education Teacher Participants	64
Table 31: Comments	64
Table 32: Response Rate by All Participants	65
Table 33 Response Rate by Novice Special Education Teacher Participants	66
Table 34 Comments	67
Table 35 Response Rate by All Participants	67
Table 36 Response Rate by Novice Special Education Teacher Participants	68
Table 37 Comments	68
Table 38 Response Rate by All Participants	68
Table 39 Response Rate by Novice Special Education Teacher Participants	69
Table 40 Response Rate by All Participants	70
Table 41 Response Rate by Novice Special Education Teacher Participants	70
Table 42 Comments	71
Table 43 Response Rate by All Participants	71

Table 44 Response Rate by Novice Special Education Teacher Participants	72
Table 45 Comments	72
Table 46 Response Rate by All Participants	73
Table 47 Response Rate by Novice Special Education Teacher Participants	74
Table 48 Comments	74
Table 49 Response Rate by All Participants	74
Table 50 Response Rate by Novice Special Education Teacher Participants	75
Table 51 Comments	76
Table 52 Response Rate by All Participants	76
Table 53 Response Rate by Novice Special Education Teacher Participants	77
Table 54 Comments	77
Table 55 Response Rate by All Participants	77
Table 56 Response Rate by Novice Special Education Teacher Participants	78
Table 57 Comments	78
Table 58 Response Rate by All Participants	79
Table 59 Response Rate by Novice Special Education Teacher Participants	89
Table 60 Comments	80
Table 61 Response Rate by All Participants	80
Table 62 Response Rate by Novice Special Education Teacher Participants	81
Table 63 Response Rate by All Participants	81
Table 64 Response Rate by Novice Special Education Teacher Participants	82
Table 65 Response Rate by All Participants	83
Table 66 Response Rate by Novice Special Education Teacher Participants	84
Table 67 Response Rate by All Participants	84
Table 68 Response Rate by Novice Special Education Teacher Participants	85
Table 69 Comments	85
Table 70 Response Rate by All Participants	86
Table 71 Response Rate by Novice Special Education Teacher Participants	86
Table 72 Comments	87
Table 73 Response Rate by All Participants	87
Table 74 Response Rate by Novice Special Education Teacher Participants	88
Table 75 Comments	88
Table 76 Response Rate by All Participants	89
Table 77 Response Rate by Novice Special Education Teacher Participants	89
Table 78 Response Rate by All Participants	90
Table 79 Response Rate by Novice Special Education Teacher Participants	91
Table 80 Response Rate by All Participants	91
Table 81 Response Rate by Novice Special Education Teacher Participants	92
Table 82 Response Rate by All Participants	92
Table 83 Response Rate by Novice Special Education Teacher Participants	93
Table 84 Response Rate by All Participants	94
Table 85 Response Rate by Novice Special Education Teacher Participants	94
Table 86 Comments	95
Table 87 Response Rate by All Participants	95
Table 88 Response Rate by Novice Special Education Teacher Participants	96
Table 89 Response Rate by All Participants	97

Table 90 Response Rate by Novice Special Education Teacher Participants	97
Table 91 Response Rate by All Participants	98
Table 92 Response Rate by Novice Special Education Teacher Participants	99
Table 93 Response Rate by All Participants.....	99
Table 94 Response Rate by Novice Special Education Teacher Participants	100
Table 95 Comments	100
Table 96 Response Rate by All Participants.....	100
Table 97 Response Rate by Novice Special Education Teacher Participants	101
Table 98 Response Rate by All Participants.....	102
Table 99 Response Rate by Novice Special Education Teacher Participants	103
Table 100 Comments	103
Table 101 Additional, optional comments.....	103

List of Figures

Figure 1 Conceptual Framework for the Study.....	7
Figure 2 Research Process (adapted from Crotty, 1998, The Foundations of Social Research).....	36
Figure 3 Data Sources	47

CHAPTER ONE: INTRODUCTION TO THE STUDY

Bilingual and special education programs have historically been challenged with a chronic shortage of appropriately certified teachers (Sutcher, Darling-Hammond, & Carver-Thomas, 2016). The shortage has become more acute, as the overall lack of teachers has increased across the nation. Starting in the 1980s, there was an influx of students moving into American cities, while at the same time, large numbers of teachers began retiring, and were not replaced. School districts were impacted by a severe shortage of teachers. State legislatures moved to alleviate these school district shortages, by approving “alternative routes” to teacher certifications (Lutz & Hutton, 1989).

Until the late 1970s, there had always been a sufficient cadre of teachers certified through traditional university-based programs to meet the demands of the school districts (Lutz & Hutton, 1989). However, the traditional programs were no longer producing the number of graduates to keep up with the demand for teachers. Therefore, the alternative methods to meet the need for certified teachers were initiated. The goal of these alternative routes is to train individuals with Bachelor’s degrees to be teachers, without them having to pursue a degree in education. Professionals are advanced into the teacher pipeline through alternative certification programs ensuring enough qualified teachers to fulfill the needs of school districts (Feistritzer, 1993). By increasing the total number of applicants for teacher positions, states were attempting to directly address the need for additional teachers. Two distinct tracks to becoming certified as a teacher were now available: (1) a “traditional” route for individuals who were certified through educational colleges/universities, and (2) an “alternative” route for individuals who already possessed a bachelor’s degree but received their teaching certificate through alternative outlets, such as a state agency or another approved organization (Friedrich, 2014, p. 3).

While the addition of alternative certification positively affected teacher shortages, overall, not all subject areas and teacher tracks were dramatically impacted. Researchers continue to find, for example, that there are not enough certified special education teachers to meet the current needs. While other areas, such as math and science, also face shortages, the shortage within special education is of “critical concern” (Bell et al., 2010, p. 33). It is, therefore, possible to conclude that there must be other factors contributing to the teacher shortage that the alternative certification does not address.

Research into teacher shortages reveals that the ongoing scarcity of teachers throughout fields, such as special education, is not because of a lack of teachers coming into the field. It is actually due to the low retention rates for teachers. Over 50% of new teachers leave the profession in their first five years of teaching (Ingersoll, 2001; Billingsley, 2004a; Thornton, Peltier, & Medina, 2007; Brunsting, Sreckovic, & Lane, 2014). Recruiting replacements to address the shortage is important. However, it does not address some of the existing issues within the profession that affect teachers during their employment, which result in high turnover rates. Billingsley quoted Ingersoll who said, “the shortage will not be solved by recruiting thousands of new people into teaching, if many of them leave after a few short years” (Billingsley, 2004b, p. 39).

While the research on alternative certification demonstrates its impact as directly addressing teacher shortages (Dee & Goldhaber, 2016) and turnover rates (Redding & Smith, 2016), it has not directly addressed how prepared alternatively certified special education teachers feel to teach. Directly addressing novice teacher concerns will be crucial in order to address the challenges of teacher shortages. The goal of this treatise is to directly identify the challenges that novice alternative special education teachers face, based on their own

experiences, during their first three years in the classroom, since this has not been previously directly addressed nor investigated. In addition to identifying these challenges, the goal of this treatise will be to identify the support novice teachers say they need, in order to feel successful in the classroom. It has been shown that how successful individuals feel, influences their desire to grow and improve (Bandura, 1977).

Problem Statement

Researchers have demonstrated that the focus should be on retaining teachers. However, there has not been sufficient emphasis placed on addressing the specific needs of special education alternatively certified teachers, while they are teaching (Billingsley, 2004a). Special education teachers are one of the groups that is most prone to leaving the classroom in the entire field (Billingsley, 2004a). Therefore, more emphasis should be placed on lending them the support they require to feel prepared and to be succeed. Research on novice teacher support, for example, shows that receiving administrative support, such as assistance with policies, paperwork, guidelines, and district expectations; emotional support; information about the “unwritten rules” of the schools; and help with acquiring instruction materials and resources, are important in encouraging retention of teachers in the classroom (Podosky, Kini, Bishop, & Darling-Hammond, 2016; Whitaker, 2013). This is notable, because there is “consistent evidence of persistent staffing issues in subjects, like science/math and special education,” that are considerably more severe and pervasive than other areas in education. (Cowan, Goldhaber, Hayes, & Theobald, 2016, p. 460).

To improve students’ academic achievement, school districts try to recruit, hire, support, and retain the highest quality teachers (Sutcher, Darling-Hammond, & Carver-Thomas, 2016), since teacher quality is an integral part of student achievement (Darling-Hammond, 2000; Goe &

Stickler, 2008; DeMonte, 2015; Ronfeldt, Loeb, & Wyckoff, 2013; Gershenson, 2016).

However, research shows that over 50% of novice teachers leave the profession in their first five years of teaching (Ingersoll, 2001). Research has also demonstrated there has not been sufficient emphasis on addressing the specific needs of alternatively certified special education teachers, while they are teaching (Cowan, Goldhaber, Hayes, & Theobald, 2016, p. 460).

One explanation for the insufficient research on special education teachers, particularly related to their certification routes and their perception of preparedness and support (Boe, Bobbit & Cook, 1997; Miller, Brownell, & Smith, 1999), is that the research often studies general education teachers at large. Research into novice special education suffers from being both limited in its scope and lacking a general consensus on teacher retention, transfer, and attrition (Billingsley, 1993). There has been other research that has scrutinized why teachers exit the classroom. by looking at the leavers (Boe, Bobbitt, Cook, Whitener, & Weber, 1997). Other studies have reviewed a teacher's intention and determined that it is a strong predictor of a teacher leaving the classroom (Gertsen, Keating, Yovanoff, & Harniss, 2001). What is collectively missing from the literature, is the in-depth information on the departure of alternatively certified special education teachers' perceptions of preparedness to teach, and what impact those differences have on teachers' decisions to stay in the field.

There is a positive correlation between receiving adequate support and teachers' perceptions of preparedness, which then leads to more teachers staying within the field. Teachers with higher levels of perception of preparedness are found to have "greater satisfaction in teaching, a more positive reaction to teaching, and [experience] less stress" (Burley, Hall, Villeme, & Brockmeier, 1991, p. 6). Hoy (2000), also supports this argument and states that "confident new teachers gave higher ratings to the adequacy of support they had received, than

those who ended their year with a shakier sense of their own competence” (p. 17). Finally, the literature shows that teachers with higher perceptions of preparedness have greater optimism to stay in teaching (Burley, Hall, Villeme, & Brockmeier, 1991; Hall, Burley, Villeme, & Brockmeier, 1992; Hoy & Spero, 2005), which illustrates that it is the one of the most direct ways to address the ongoing teacher shortages in special education.

Purpose of the Study

The purpose of this study is to identify the perceptions of professional preparedness of alternatively certified special education teachers, as reflected in their first three years of practice. From the findings, school leadership within schools will be able to identify better support systems and training modules for these teachers, which can hopefully improve their retention rates, have a positive effect on the teacher shortage, and ultimately positively influence student achievement.

Significance of the Study

This study is significant because directly addressing the concerns and challenges that novice alternatively certified teachers face is an important first step in determining what can be done to stem the tide of these teachers leaving the classroom. Teacher attrition is exacerbated when one considers its impact on the most vulnerable students. According to Darling-Hammond (1995), for example, “America’s most qualified educators are underrepresented in America’s most challenging schools” (p. 473). Across the nation, “only about 15% of America’s expert teachers teach in high-poverty, underachieving schools.” Therefore, our poorest and most fragile students are sitting in classes with our least experienced teachers (Darling-Hammond, 1995, p. 473). This has a profound impact on students with special needs, who come to school already behind their more privileged peers, and are then taught by new teachers who struggle with

becoming socialized to the classroom environment (Sharplin, O'Neill, & Chapman, 2011).

Researching and determining differences in perceptions of preparedness of alternatively certified teachers will not only add to the overall knowledge base, but also help support the field in determining what additional or different types of support are needed for novice special education teachers, based on their certification type.

Conceptual Framework

The study is situated at the intersection of the guidance, direction, and services provided by several entities, whose work is dedicated to teacher preparation and certification. Of importance are the entities whose sphere of influence impacts teacher preparation and certification in Texas; entities that promulgate and implement legal standards, as well as those that create standards based on best practices, research, and professional largesse. The study's conceptual framework is, therefore, a synthesis of four entities and their work: Texas' State Board of Educator Certification (SBEC), the Council for the Accreditation of Educator Preparation (CAEP), the Council for Exceptional Children (CEC), and Education Service Center Region 4 (ESC4) (see Figure 1).



Figure 1 Conceptual Framework for the Study

The State Board for Educator Certification (SBEC) was created by the Texas Legislature in 1995 to “recognize public school educators as professionals and grant educators the authority to govern the standards of their profession” (SBEC, 2018, para. 1). “The board shall regulate and oversee all aspects of the certification, continuing education, and standards of conduct of public school educators” (Texas Education Code (TEC), Section 21.031), which includes the rules establishing the training requirements a person must accomplish to obtain a certificate, as well as the minimum academic qualifications required for a certificate (TEC, Section 21.044). The rules also include admission requirements for educator preparation programs (TEC, Section 21.0441), and guidelines for educator preparation program approval and renewal (TEC, Section 21.0443). The Texas Education Code includes all statutes pertinent to education in Texas. However, it is the Texas Administrative Code, Title 19, Part VII that articulates SBEC rules. The SBEC rules are the focus of this study.

The Council for the Accreditation of Educator Preparation (CAEP), while not a legal or administrative entity, is an independent educator preparation accrediting agency, whose mission is to advance “equity and excellence in educator preparation through evidence-based

accreditation that assures quality and supports continuous improvement to strengthen P-12 student learning” (CAEP, 2018, About Us). CAEP has articulated five standards that serve as the basis for reviewing an educator preparation program (EPP). They are based on two principles: (a) solid evidence that the provider’s graduates are competent and caring educators, and (b) there must be solid evidence that the provider’s educator staff have the capacity to create a culture of evidence and use it to maintain and enhance the quality of the professional programs they offer. (CAEP, The CAEP Standards)

The five standards expand on the two principles and serve as the backbone of the CAEP accreditation process. They are designed to reflect quality programming, as demonstrated in the EPP’s organizational performance, and the accreditation review (see Figure 2). CAEP facilitates ongoing discourse among stakeholders at every level of education to maintain a clear understanding of what makes a quality educator. While CAEP accreditation is not required, the list of university based EPPs that are seeking CAEP accreditation continues to grow, due to the rigor inherent in the accreditation process (CAEP, 2018, About Us). Heafner, McIntyre, and Spooner (2014) state the “standards are intended to make the accreditation process more rigorous and outcome-focused, by setting minimum criteria for program admissions and requiring programs to demonstrate their graduates’ impact on student achievement” (p. 516), which the authors believe will provide a unique challenge for EPPs. It is the documented rigor inherent in the CAEP standards that informs their choice, as contributing to the study’s conceptual framework.

Table 1 CAEP Standards

CAEP Standards	
Standard 1. Content and Pedagogical Knowledge	The provider ensures that candidates develop a deep understanding of the critical concepts and principles of their discipline and, by completion, are able to use discipline-specific practices flexibly to advance the learning of all students toward attainment of college- and career-readiness standards.
Standard 2. Clinical Partnerships and Practice	The provider ensures that effective partnerships and high-quality clinical practice are central to preparation, so that candidates develop the knowledge, skills, and professional dispositions necessary to demonstrate positive impact on all P-12 students' learning and development.
Standard 3. Candidate Quality, Recruitment, and Selectivity	The provider demonstrates that the quality of candidates is a continuing and purposeful part of its responsibility from recruitment, at admission, through the progression of courses and clinical experiences, and to decisions that completers are prepared to teach effectively and are recommended for certification. The provider demonstrates that the development of candidate quality is the goal of educator preparation in all phases of the program. This process is ultimately determined by a program's meeting of Standard 4.
Standard 4. Program Impact	The provider demonstrates the impact of its completers on P-12 student learning and development, classroom instruction, and schools, and the satisfaction of its completers with the relevance and effectiveness of their preparation.
Standard 5. Provider Quality Assurance and Continuous Improvement	The provider maintains a quality assurance system comprised of valid data from multiple measures, including evidence of candidates' and completers' positive impact on P-12 student learning and development. The provider supports continuous improvement that is sustained and evidence-based, and that evaluates the effectiveness of its completers. The provider uses the results of inquiry and data collection to establish priorities, enhance program elements and capacity, and test innovations to improve completers' impact on P-12 student learning and development.
CAEP Standards, http://caepnet.org/~media/Files/caep/standards/caep-standards-one-pager-0219.pdf?la=en	

The CAEP standards provide a framework for overall EPP performance. However, the study also requires a framework against which to consider EPPs specific to special educator preparation. The Council for Exceptional Children (CEC) standards fill this need. Since its beginning, the CEC has “recognized the critical role of standards in defining special education as a profession (CEC, CEC Professional Standards). The CEC has developed initial and advanced standards for special education professionals’ preparation at all levels. The standards are developed through a collaborative process to ensure that they are research-based, current, and

fully address the knowledge and skills special educators must master (CEC, Special Educator Preparation Standards). CEC is a partner with CAEP for a majority of its program recognition work, since both entities consider specialized knowledge and skills to be the foundation of a strong profession. As with CAEP, it is the documented rigor inherent in the CEC standards that informs their choice as contributing to the study's conceptual framework.

The final entity included in the structure of the study's conceptual framework is Education Service Center Region 4 (ESC4). In 1967, the Texas Legislature created regional Education Service Centers to provide support services to school districts. The ESCs are not regulatory agencies, they "assist school districts in improving student performance...enable school districts to operate more efficiently and economically, and implement initiatives assigned by the legislature or commissioner" (TEA, Education Service Centers). For purposes of the study, the ESC included in the setting of the study is ESC4, which maintains a roster of all approved EPPs in the region. The roster includes 135 providers, which are a combination of institutions of higher education, ESC4, public school districts, and other entities approved by SBEC (TEA, Educator Preparation Home). As previously stated, ESC4, CEC, CAEP, and SBEC are the four entities that coalesce to inform the conceptual framework for the study.

Research Questions

The research questions that will guide the study are:

1. What are the perceptions of preparedness of novice alternatively certified special education teachers?
2. What are the perceptions of preparedness of novice traditionally certified special education teachers?
3. What are the differences in perceptions of preparedness between the two groups of teachers?

Research Design

I was interested in understanding the perceptions and experiences of special education teachers, to hear their stories, to learn about the trajectory from their preparation to become teachers through their experience as novice teachers. I wanted to capture the subtle nuances and details about the teachers' perceptions and experiences and to gather deep thick descriptions. All of these interests were fulfilled in the study, by utilizing a mixed methods research approach, as described by several authors (Creswell, 2010; Mertens, 2007; Onwuegbuzie, 2012).

The mixed methods approach allowed me to collect, analyze, and integrate both quantitative and qualitative data in my study. I had a quantitative database, comprised of responses to the survey instrument I distributed. I also had a qualitative database, comprised of (a) the open-ended responses, which were part of the survey, and (b) the semi-structured interview responses of five special education teachers. I chose the concurrent triangulation mixed methods design. In the study, the quantitative and qualitative data were collected and analyzed at the same time. There was no priority of the qualitative or quantitative data over the other. The priority was equal. Data analysis was conducted separately, and integration occurred as I interpreted both sets of data. My purpose was to identify the extent to which the data converged. Therefore, was I able to triangulate the data, identify themes, and corroborate my findings (Hanson,. Creswell, Plano Clark, Petska, & Creswell, 2005).

Limitations and Delimitations

There are a few limitations and particular situations that provided bounds for the study. I presumed that the participants would be open and honest in their responses. The findings of the study were not presumed to be generalizable to all special education teachers. Whatever time of year the interviews were conducted, the responses and the data were a snapshot in time. It was,

therefore, not known if responses would vary by the time of year when the interviews were conducted. This is especially important for this study, since even a few months changes the perspective of these novice teachers in terms of their own lived and learned experiences.

There are also a few delimitations of the study. Survey participants (quantitative methods of the study) self-selected from among all special education teachers of one school district that agreed to participate in the study. The semi-structured interview participants (qualitative methods of the study) included novice special education teachers who had completed the survey instrument. Therefore, to participate in the interviews, a novice special education teacher had to initially agree to participate in the survey, and further agree to participate in the follow-up interviews. The study was confined to one school district in Texas.

Organization of the Study

The study is organized into five chapters. In Chapter One, I present an overview of the study, situating the study by purpose, the problem to be addressed, the research questions that guided the study, the study's research design, the limitations and delimitations of the study, and the lexicon particular to the study. In Chapter Two, I will review the pertinent literature and focus the study to determine what literature is currently presented on novice special education teachers and their preparation for the classroom. Chapter 3 will focus on the methodology and organization of the study. Chapter 4 will discuss the findings of the study and the theme or themes that emerged. Finally, Chapter Five presents the results and summary of the findings and the implications that this study has for future studies, as well as for practitioners and study programs.

Definition of Terms

There are terms that are particular to this study. The terms are presented and defined as follows:

Alternative Teacher Certification: A process by which a person is awarded a teaching license, even though that person has not yet completed a traditional teacher certification program. In the U.S., traditional teacher certification is earned through completing a bachelor's or master's degree in education, taking standardized tests (usually a Praxis test) and fulfilling additional state requirements (Lutz & Hutton, 1989)

Alternatively Certified Teacher: Primarily serves as a candidate who the state permits to be the teacher of record in a classroom, while participating through this route. They may be within an Institute of Higher Learning (IHE) (referred to as “alternative, IHE-based” providers) or outside an IHE (referred to as “alternative, not IHE-based” providers). For purposes of Title II of the HEA reporting, each state determines which teacher preparation programs are alternative programs (U.S. Department of Education, 2016, p. xiii).

Novice Special Education Teacher: While various authors have defined novice teachers in different ways, for the purpose of this study, a novice teacher is an individual with three or less years of experience in the special education classroom.

Perceptions of Preparedness to Teach: This is a reflection of how prepared a teacher “felt for some of the most compelling classroom demands” and “requirements” of teaching (Lewis et al., 1999 p. 47).

Traditionally Certified Teachers: “Undergraduate students with no prior teaching or work experience, and which generally leads to at least a bachelor's degree. Some traditional teacher preparation programs may lead to a teaching credential but not to a degree. A traditional

teacher preparation program in the outlying areas may lead to an associate degree. (U.S. Department of Education, 2016, p. xiii)

Chapter Summary

It is imperative for campus and district leadership, beginning with the superintendent, to take an active role in acclimatizing and preparing novice special education teachers to work with their students. Since there is not currently enough research on the perceptions of preparedness of novice special education teachers to thoroughly inform practitioners in the field on what novice special education teachers currently need in terms of direct supports to be successful, this study is situated to add to the understanding of the phenomenon. There is currently a gap in the research, in terms of what is known regarding alternatively certified novice special education teachers' perceptions of preparedness during their first three years of teaching, and what campus and district-based administrators and preparation programs can do in support of novice special education teachers in addressing these challenges.

CHAPTER TWO: LITERATURE REVIEW

Teachers play a vital role in student achievement. How they are prepared, and subsequently, assessing their self-confidence and belief in their abilities to fulfill their role is critical for instructional leaders at all levels of the educational enterprise. Research is lacking on teachers' perceptions of preparedness leading to actual efficacy in the classroom (Brown, Lee, & Collins, 2015). The study of teacher perceptions of preparedness is of vital importance, since the literature has shown that teachers with higher perceptions of preparedness have more optimism about staying in teaching (Woolfolk, Hoy & Spero, 2005). Given the sustained shortage of qualified and dedicated teachers at all levels, a study of the factors that lead to retention and self-efficacy can help to address the teacher shortage.

Subject areas, such as math and science, face ongoing teacher shortages. However, the shortage of special education teachers is of "critical concern" (Bell et al., 2010, p. 33). In order to address the teacher shortage, educational leaders need to consider alternative methods of preparation and certification, with an interest in how teachers perceive this preparation. Research has addressed the various aspects of alternative certification and how it directly addresses teacher shortages (Dee & Goldhaber, 2017) and turnover rates (Redding & Smith, 2016). However, the existing research has not directly addressed the differences in the perceptions of preparedness of alternatively certified special education teachers. The comparison of differences in the perceptions of preparedness is the focus of this literature review. It is divided into four sections: self-efficacy and perceived preparedness, defining teacher preparedness, teacher perceptions of preparedness, and special education teachers. The chapter ends with a chapter summary.

Self-Efficacy and Perceived Preparedness

Perceived preparedness measures an individuals' belief in their abilities. Perceptions of preparedness as a theory has been used extensively in various fields, including nursing (Scherbring, 2002), business (Chen, Yao, & Kotha, 2009), and even geology (Paton, Smith, & Johnston, 2000). According to Bandura (1977), who developed the theory of social learning, perceived self-efficacy, or belief in one's capabilities, impacts an individual's ability and motivation to pursue a goal or complete a task.

Positive self-efficacy affects "how much effort people will expend and how long they will persist in the face of obstacles and aversive experiences. The stronger the efficacy or mastery expectations, the more active the efforts" (Bandura, 1977, p. 80). Brown et al. (2015) stated that several studies "indicate a relationship between feelings of preparedness and an increased sense of teaching efficacy" (p. 80).

Self-efficacy and perceptions of preparedness are directly linked. According to Brown et al. (2015), teachers' "feelings of preparedness are often an important predictor of their ability to perform teaching tasks, as well as their self-efficacy to teach" (p. 77). Self-efficacy relates to how hard someone works in the face of a challenge. Therefore, higher teacher self-efficacy "has been linked to several important teacher behaviors and student outcomes" (Soodack & Podell, 1997, p. 214). Teacher self-efficacy "is one of the few individual characteristics that reliably predicts instructional practice and student outcomes" (Brown et al., 2015, p. 79).

For novice teachers, perceived preparedness and self-efficacy impact not only classroom success but also persistence in the field. Bandura (1977) stated, "The strength of people's convictions in their own effectiveness determines whether they will even try to cope with difficult situations" (p. 79). Since novice teachers are constantly learning new activities, their

belief in the ability to be successful is an important factor in having positive outcomes in the classroom (Brown et al., 2015). The learning process is directly impacted by performance accomplishments (completing success), vicarious experiences (observing success), verbal persuasion (individual coaching), and emotional arousal (Bandura, 1977).

Efficacy is most directly positively impacted by performance accomplishments, followed by vicarious experiences. Performance accomplishments lead to more success and raise one's self-expectations. In vicarious experiences, novice teachers may observe others to increase the belief that the task is possible. Conversely, verbal persuasion "creates expectations without providing an authentic experiential base" (Bandura, 1977, p. 82). Emotional arousal, unlike the calm feeling of preparedness, has a negative impact on self-efficacy, leading to anxiety and feelings of vulnerability. "Because high arousal usually debilitates performance, individuals are more likely to expect success when they are not beset by aversive arousal than when they are tense, shaking, and viscerally agitated" (Bandura, 1977, p. 82).

Bandura's (1997) Teacher Self-Efficacy Scale includes components of decision-making, school resource use, instructional self-efficacy, discipline (classroom management), parental involvement, community involvement, and positive school climate. According to Bandura, individuals improve by successfully accomplishing tasks, and mastery arises from continual successful performances. Bandura posited that learning a new skill is primarily done through direct experience or observation, imitation, and modeling. This process of learning goes through the steps of attention, retention, reproduction, and motivation. The more successful an individual feels at a task, the more motivated they will be to continue. Tschannen-Moran and Woolfolk Hoy's (2001) Teachers' Sense of Efficacy Scale Short Form measures similar areas, including

classroom management, family involvement, ability to ask meaningful questions, ability to use various student assessments, and motivation of students.

Self-efficacy plays a direct role in a teacher's classroom experiences, and a teacher's belief in his or her ability to teach, impacts classroom performance (Brown et al., 2015; Soodack & Podell, 1997; Yilmaz, 2011). Teachers with a higher sense of efficacy spend more time on instruction, take a greater responsibility for students who struggle academically, allow for greater student autonomy, and try harder to resolve problems (Soodack & Podell, 1997). They also have been shown to be resilient and to support students in reaching their full potential (Brown et al., 2015). When teachers feel well-prepared, they tend to possess higher levels of efficacy and exert more effort in meeting student's educational goals (J. Lee et al., 2012). Perceptions of preparedness and self-efficacy are both "closely related to teaching practice, so it is necessary for educators to consider how to promote these two affective domains throughout their teacher preparation programs, including student teaching experiences" (Lee et al., 2012, p. 15-16).

Defining Teacher Preparedness

Perception of preparedness refers to how equipped a teacher feels to teach in a classroom setting. It is vital, since novice teachers need significant professional support from their peers (Steadman & Simmons, 2007). More specifically, for special education teachers, supports from mentors and principals has a positive impact on their early career (Whitaker, 2000). Perception of preparedness has been used broadly by researchers, and has included topics, such as a teacher's ability to provide information on their ability to differentiate instruction (Casey & Gable, 2011), manage the classroom (O'Neill & Stephenson, 2012), and receive support for teaching special education students (Lee, Patterson, & Vega, 2011). Ayers and Thompson (1990) found that "that there were basically no differences in perceptions of preparedness for

student teaching between traditional and non-traditional students, between males and females, and between students at public and private institutions” (p. 9).

Research conducted to define and identify characteristics of perceptions of preparedness include Brown et al. (2015) as well as Lee et al. (2012) who measured and subdivided the perceptions of preparedness based on five components: pedagogical content knowledge, planning and preparation for instruction, classroom management, promotion of family involvement, and professionalism. Another example of related research was conducted by Koehler, Feldhaus, Fernandez, and Hundley (2013) who measured perception of preparedness using six domains: effective lesson plans, classroom management, content-area knowledge, assessment of student learning, support for the psychological needs of secondary students, and ability to teach a diverse group of students.

Teacher Perceptions of Preparedness

There is a difference among teachers’ perceptions of preparedness, according to their status: traditionally prepared preservice teachers, novice traditionally prepared and certified, alternatively prepared and certified, and special education teachers. The extant literature includes research related to each category. While some characteristics appear to overlap categories, there are some notable differences.

Traditionally prepared preservice teachers. The longer they are exposed to student teaching, preservice teachers benefit from classroom experience and feel more prepared to teach. Brown et al. (2015) tested how prepared preservice teachers felt after student teaching. Their mixed-methods study with 71 preservice teachers in their final year of a four-year teacher-education program used pre- and post-surveys to measure how student-teaching experiences impacted efficacy and perceptions of preparedness among novice teachers of pre-kindergarten

through Grade 6. Brown et al. concluded, “Pre-service teachers benefit from their student teaching experiences in terms of perceptions of preparedness and sense of teaching efficacy” (p. 87). The study showed the importance of student teaching to increase pre-service teachers’ perceived preparedness and self-efficacy. Student teaching involves direct experience or observation, imitation, and modeling, the elements of social learning (Bandura, 1977).

Turner, Jones, Davies, and Ramsey (2004) conducted a quantitative study of 77 preservice teachers in their final year, before receiving a bachelor’s degree in education. They used the Teachers’ Sense of Efficacy Scale Short Form (Tschannen-Moran & Woolfolk Hoy, 2001) with a 7-point Likert scale for 12 items. The scale ranged from 1 (*none at all*) to 7 (*a great deal*). The researchers sought to study and describe how teachers perceived their efficacy and the impact of their environment on them as teachers. Preservice teachers reported “high levels of confidence in their preparation for the workforce” (Turner et al., 2004, p. 191). Specifically, they “felt better prepared for the competencies relating to classroom activities than they do for other general tasks of the teaching role” (Turner et al., 2004, p. 191). The authors attributed this to the focus of the practicum experience on classroom instruction, rather than the broader school culture. Preservice teachers in the Turner et al. study reported a higher sense of efficacy for behavior management ($M = 4.93$, representing *some degree*) than efficacy in student learning ($M = 4.47$). Of final note, Turner et al. further stated, while additional research is needed on “person-environment fit...in all, the present results indicate that students feel reasonably well prepared for their teaching role” (p. 192-3).

When teachers feel well-prepared, they possess higher levels of efficacy, and higher self-efficacy affects how much effort they are willing to put forth in the classroom (Lee et al., 2012). In their study of 130 traditionally trained preservice teachers of pre-kindergarten through Grade

4, Lee et al. (2012) focused on teacher candidates to investigate the impact of student teaching on their perceptions of preparedness and self-efficacy in teaching, noting the “relationship of preparedness to efficacy and the importance of efficacy in effective teaching” (p. 5). The researchers measured perceived preparedness using five core concepts based on educational standards set forth by the National Association for the Education of Young Children: (1) pedagogical content knowledge, (2) planning and preparation for instruction, (3) classroom management, (4) family involvement, and (5) professionalism. The study found that student teaching had an overall positive effect on a novice teacher’s self-perception of preparedness for the classroom and was “statistically significant on all five categories” (Lee et al., 2012, p. 13). However, the teachers did feel that their program did not cover all areas with the same level, as “family involvement” was rated significantly lower than pedagogical content knowledge, planning and preparation for instruction, classroom management, and professionalism (Lee et al., 2012, p. 13).

A study of 130 teacher candidates in grades Pk-4th tested how well-prepared preservice teachers felt before and after student teaching, using six-point Likert ratings that focused on 23 questions addressing the National Association for the Education of Young Children (NAEYC) standard-based categories (Lee et al., 2012). Pre- and post-test results in the study showed statistically significant higher levels of perceptions of preparedness/self-efficacy on all five categories following student teaching. A specific finding was that preservice teachers reported feeling least prepared in promoting family involvement. Scores showed a comparatively large standard deviation of 4.59 (indicating less consistency among student responses) for preparing lesson plans for culturally diverse students, and, again, teacher candidates in the study reported significantly higher perceptions of preparedness after student-teaching experiences. Student

teaching allows successful task completion (mastery) as well as observation of others (vicarious learning), as proposed by Bandura (1977).

Novice teachers. The term “novice teacher” has various meanings and is used by different researchers to include teachers with a varying amount of teaching experience. This includes researchers who view a novice teacher in their first semester of teaching (Curry, J. R., Webb, A. W., & Latham, S. J., 2016), a teacher in their first-year of teaching (Ingersoll, R. M., & Strong, M. (2011); a teacher with up to three years of experience (Barrett et al., 2002); or a teacher with up to five years of teaching experience (Kim & Roth, 2011). For the purpose of this study, a novice teacher is a teacher who has three or fewer years of experience in the special education classroom. Woolfolk Hoy and Spero (2005) reviewed how efficacy changes through the first years of teaching using four self-efficacy instruments: items developed by the RAND Corporation, Gibson and Dembo’s (1984) Teacher Efficacy Scale, Bandura’s (1997) Teacher Self-Efficacy Scale, and a program-specific scale “designed to reflect the specific context and goals of the preparation program studied” (p. 344) called the Ohio State University Teaching Confidence Scale. This scale included 32 specific teaching skills, such as managing classrooms, evaluating student work, and using cooperative learning approaches, which participants rated on a 6-point scale. Gibson and Dembo’s Teacher Efficacy Scale is a 30-item measure of two factors: Personal Teaching Efficacy and General Teaching Efficacy. Woolfolk Hoy and Spero stated, “Researchers have found the two factors moderately related” (p. 347).

Bandura’s (1997) 30-question scale included seven efficacy subscales on the teachers’ confidence in their ability to influence others, instruct and discipline appropriately, and enlist parental and community involvement. This study found that while teacher efficacy is “multi-dimensional,” teacher self-efficacy “may influence certain patterns of classroom behavior known

to yield achievement gains” (p. 579). Of note, the authors stated that additional investigations should investigate other teacher behaviors and attributes, such as “the relationships between teacher characteristics (i.e., gender, years of teaching experience, grade levels, and personal attributes) and sense of efficacy is needed” (p.579).

Woolfolk Hoy and Spero (2005) analyzed results in two areas: change from the beginning of the teacher preparation program to the end of student teaching and change from the end of student teaching to the end of the first year of teaching. This longitudinal study followed 53 prospective and novice teachers from their preparation program through the end of their first-year teaching. It focused on how teacher efficacy changed throughout the year in the classroom, and the factors related to the change. In the study, three different instruments were used to measure four different aspects of teacher efficacy. The three different instruments used were: Gibson and Dembo General Teaching Efficacy subscale that produced a general teaching efficacy (GTE) and a personal efficacy scale (PTE); Bandura Teacher Self-Efficacy Scale; and the OSU Teaching Confidence Scale.

The results showed significant increases on all four measures between the beginning of the program and ending student teaching. During the second stage, in the first year of teaching, teachers showed significant decreases in perceived efficacy on the Bandura scale and the Gibson and Dembo General Teaching Efficacy subscale. Woolfolk Hoy and Spero concluded from these findings, “Efficacy, however assessed, rose during student teaching, but fell with actual experience as a teacher” (p. 352). The researchers proposed that this decline in teacher efficacy was partially due to the fact that “prospective and novice teachers underestimate the complexity of teaching tasks and their ability to manage many agendas simultaneously” (Woolfolk Hoy & Spero, 2005, p. 353).

Alternatively certified novice and preservice teachers. According to various studies (Kee, 2011; Casey, Dunlap, Brister, & Davidson, 2011; Casey, Dunlap, Brister, Davidson, & Starrett, 2013), nearly one-third of all new novice teachers are alternatively certified, with almost half a million teachers having been certified through alternative routes over the past 20 years. However, the research into self-efficacy and perceptions of preparedness differences between alternatively certified teachers is lacking, despite research indicating that alternatively certified teachers are most in need of direct support (Casey, Dunlap, Brister, Davidson, & Starrett, 2013).

Anthony, Gimbert, Fultz, and Parker (2011) measured the self-efficacy of 20 novice teachers in one alternative certification program and found that teachers who had not yet passed their licensure exams “reported higher levels of self-efficacy” than their counterparts who had passed their exams. They also found that teachers with lower self-efficacy “most frequently attended” coaching sessions (p. 56). The authors inferred that differences could be due to age and life experiences or that teachers who had passed licensure exams might be more aware of the “differences between book knowledge and the demands of teaching in complex settings” (Anthony et al., 2011, p. 56).

Kee (2011) found that novice alternatively certified teachers did not feel as prepared as their traditionally certified cohort in a national study of 1,690 first-year teachers. Kee measured feelings of preparedness using five questions from the 2003-2004 Public School Teacher Questionnaire of the National School and Staffing Survey that asked how well-prepared novice teachers felt to handle classroom management or discipline, use instructional methods, teach subject matter, assess students, and select and adapt curricular materials in their first year of teaching. Some of the key differences that were found in Kee’s study were the types and lengths of coursework first-year teachers participated in. These differences were important to novice

teachers' overall feelings of preparedness.

Kee (2011) reviewed the impact of the length of student teaching on feelings of preparedness of alternatively certified first-year teachers, grouping the student-teaching time and field experience into three periods: 1–7 weeks, 8–11 weeks, and 12 or more weeks. The teachers who received 1–7 weeks of student teaching did not indicate statistically significant differences in feelings of preparedness, compared to the teachers with no experience. Teachers who received 8–11 weeks of student-teaching practice had preparedness scores 0.24 points higher ($p = .082$) on average than teachers with no practice. Teachers with 12 or more weeks of practice teaching had preparedness scores 0.22 points higher ($p = .048$) than teachers with no teaching practice. Only 6% of teachers who did not receive any student-teaching practice reported feeling prepared, compared to 18% of teachers who received 1–7 weeks of practice, 62% of teachers who received 8–11 weeks, and 72% of teachers who received 12 or more weeks. Therefore, the study found that first-year teachers who received any student-teaching practice at all felt better prepared, but particularly after eight or more weeks of practice.

Special Education Teachers

Self-efficacy may be even more important for special education teachers than for general education teachers. As Bishop, Brownell, Klingner, Leko, and Galman (2010) pointed out,

One's prior experience as a student in elementary and secondary has a strong influence on classroom practice. . . . In special education, however, entering beliefs may not play the same role in classroom practice, as prospective teachers have spent little time in special education settings. (p. 76) Therefore, special education teachers enter the classroom with less of a lived experience than general education teachers, which could affect their overall self-efficacy and perceptions of preparedness. Compared to general education teachers, novice special education

teachers encounter additional challenges based on responsibilities outlined in the Individuals with Disabilities Education Act (IDEA) and the specific needs of students receiving special education services (Tillman, Richards, & Frank, 2011). Tillman et al. (2011) compiled a list of challenges specific to special education teachers. These challenges and additional preparation needs include developing and implementing Individualized Education Programs (IEPs), conducting IEP meetings, administering multiple formal assessments, working with paraprofessionals, enduring “perceptions of intervention specialists as unequal to general educators” (Tillman et al., 2011, p. 51), and a greater need for emotional and professional support, such as mentoring.

Specific to creating IEPs, research findings have varied regarding teacher preparation and comfort level with IEPs. Ruppar, Neeper, and Dalsen (2016) reviewed special education teachers’ perceptions of preparedness to use recommended practices for students with severe disabilities. The study of 130 special education teachers showed that they felt most prepared to “complete IEPs and collaborate with other educational team members” and least prepared to “support students’ medical and physical needs” (p. 280). Overall, the researchers found that special education teachers possessed a lower comfort level providing direct support to students with severe disabilities. Ruppar et al. (2016) reported, “Limited research has been conducted on special education teachers’ perception to teach, and no studies have focused specifically on perceptions to teach students with severe disabilities” (p. 274).

Preservice special education teachers. The literature on novice special education teachers has also shown that the more exposure novice special education teachers are given regarding disabilities during initial training as well as throughout their early career, the more successful they will be with students with these disabilities. One study demonstrated, “one

variable that has consistently been found to have influenced educators' attitudes is disability education" (Sharma, Forlin, & Loreman, 2008, p. 774). One way to support preservice special education teachers is to directly address their classroom challenges, so the field does not continue to lose these teachers. The data shows that while there has been an overall increase in the number of special education teachers that are needed, the attrition rates of first-year special education teachers has also increased (Tillman, Richards, & Frank, 2011).

A study conducted by Tillman et al. (2011) included 20 intervention specialist candidates in their student-teaching semester, their 20 cooperating teachers, and four university faculty members. This study was conducted at a religious university in the Midwest. In addition to the need for the students to "practice and conduct IEP meetings and to conference with families during student teaching" (p. 59), Tillman et al. (2011) found that the student teachers needed additional support in several areas. Preservice special education teachers needed support in articulating clear learning goals for students, connecting content previously learned with new content, and creating or selecting evaluation strategies appropriate for the students and aligned with the goals of the lesson.

The study also found that communicating challenging learning expectations to each student, establishing and maintaining consistent standards of classroom behavior, making the physical environment as safe and conducive to learning as possible, reflecting on the extent to which the learning goals were met, and communicating with parents or guardians about student learning were also challenges for preservice special education teachers. While overall the study participants were rated as "prepared in each of the areas addressed," the candidates faced numerous challenges (p.56).

Novice special education teachers. While all novice teachers share some of the same challenges, there were others that are unique to novice special education teachers. In a study of 156 first year special education teachers in South Carolina, Whitaker (2003) conducted a study on the amount of assistance that these teachers needed and received in eight areas. The eight areas covered in this study included: (1) Curriculum/Instruction, (2) Discipline, (3) Emotional Support (4) Interactions with Others, (5) Management, (6) Materials, (7) System Information-School, and (8) System Information- Special Education. The study found that these beginning special education teachers felt that they needed the most support in System Information, since it related directly to Special Education. The study found that the greatest area of need for novice special teachers (System Information- Special Education) was also the area in which they reported the greatest discrepancy between the amount of assistance needed and the amount of assistance received. Two other areas of need were emotional support and school information. However, the difference between the perceived needs by the study participants and the amount of support received in these two follow-up areas were not as critical as for information as they recieved for direct support in special education.

In another study of novice special education that focused on the self-efficacy of novice special education teachers, it was found that teachers' self-efficacy was negatively impacted by "lack of support from the school district, lack of resources, and heavy workloads," These factors negatively impact teacher self-efficacy (Lee, Patterson, & Vega, 2011, p. 70). The study recommends multiple ways to support novice special education teachers through various techniques, such as observing master teachers, providing mentors for novice teachers and offering various incentives for the two teachers to meet.

Alternatively certified special education teachers. Several research studies have found that alternatively certified novice special education teachers are leaving the teaching field in numbers that exceed replacement levels, creating ongoing shortages in schools (Boe, Cook, & Sunderland, 2008; Sutchter, Darling-Hammond, & Carver-Thomas, 2016). One of the current challenges with the literature on novice teachers is that the two certification groups have regularly been studied as one group (Mason-Williams, 2015) rather than addressing the specific needs of each group. The research conducted on alternative certified teachers has also been based on the researcher's specific view of alternative certification. Some of the research has focused on the benefits of having additional individuals in pools of potential hires to address teacher shortages (Humphrey, Wechsler, & Hough, 2008; Ng, 2003), while other research has focused on special education students not gaining access to the same types of teachers, if they are enrolled in schools in areas with a high incidence of poverty (Boe, Bobbitt, & Cook, 1997; Darling-Hammond, 2000).

Bishop, Brownell, Klingner, Leko, & Galman (2010) conducted a mixed-methods study of traditional and alternative special education novice teachers (zero to three years of experience) focused on the interplay among individual teacher factors, teacher preparation program factors, and school factors to determine the attributes that lead teachers to engage in more effective reading strategies. The researchers found the more reflective, resourceful, and relentless the teachers were, the more effective they were. The most accomplished teacher subjects "appeared to benefit from the right mix of these factors, whereas the least accomplished teachers were derailed by their lack of knowledge, confidence to persist, insufficient preparation, and workplace barriers" (p. 88).

There is limited research on the supports and needs of alternatively certified, novice special education teachers, particularly in terms of comparing these teachers with their traditionally certified counterparts. The existing research suggested that alternatively certified, novice special education teachers need direct support in curriculum, lesson planning, and classroom management (Casey, Dunlap, Brister, & Davidson, 2011). Casey et al.'s study of 54 novice (one to three years of experience), alternatively certified special education teachers reviewed the challenges and supports that novice special education teachers require during their first year of teaching and found that these teachers need additional support from their “peers, mentors, or principals” (p. 188). These researchers also conducted a different study with 89 alternatively certified special education and bilingual teachers to determine what supports these teachers need and perceive to be effective. The challenges “most frequently encountered by the novice teachers were in areas of time management, knowing what to teach, meeting individual students’ academic needs, lesson planning, and classroom management” (Casey et al., 2013, p. 295). The research again showed that novice alternatively certified special education teachers need additional supports, including extra student teaching, additional administrative support, mentors, and a supportive school culture.

Summary: Perceptions of Preparedness

The research has shown that student-teaching experience is vital to prepare new teachers (Brown et al., 2015; Kee, 2011; Lee et al., 2012; Turner et al., 2004). However, student teaching alone is not enough to prepare novice teachers for the classroom. Osisoma and Onyia (2008) found that teachers’ perceptions of preparedness did not match abilities demonstrated in the classroom. The researchers found a specific gap between teacher perceptions of inquiry-oriented instructional abilities and actual implementation in the classroom. The participants in Osisoma

and Onyia's study were 39 teachers from an urban secondary school, 62% of whom held a master's or doctoral degree, 64% of whom had taught science for less than 20 years, and 59% of whom had less than six years of experience in an urban setting. This type of research into teacher's feelings of preparedness is vital to improving instructional practices that will not only improve "pedagogy but will also support the academic growth of urban students as measured in the state standardized test scores" (Osisioma & Onyia, 2008, p. 100).

In a study on beginning teachers' perceptions of preparedness to differentiate instruction for students, Casey and Gable (2011) found that although teachers had an overall feeling of being prepared to differentiate instruction for students, various aspects of differentiation were a challenge, and teachers' differentiation of instruction was superficial. The researchers found that teacher preparation programs could support teachers' preparedness for providing differentiated instruction, by focusing on the explicit instruction of differentiation, supporting teachers to address student concerns about learning, and providing teachers with opportunities to observe and learn from their more experienced counterparts. This study shows the importance of learning and growing through direct experience and observation to improve overall skills and then repetition to increase mastery and motivation.

Teachers' beliefs can remain the same or change throughout their career. Perceptions are directly impacted by teachers' experiences in the classroom (Hall, Hutchison, & White, 2015). Professional development and teacher training are "important components in enhancing the knowledge, skills, preparedness, and beliefs" of teachers (Vamos & Zhou, 2007, p. 291). Vamos and Zhou (2007) gathered demographic information on 166 practicing teachers and 78 preservice teachers in health education and asked both groups of participants their current understanding of 17 health-related topics. "In both pre-service and practicing teachers, the higher the level of

knowledge and skill the teachers possessed, the more prepared and competent they felt to teach health education” (Vamos & Zhou, 2007, p. 291).

Additional research regarding novice special education teachers is needed, since not enough research has been completed about their perceptions of preparedness. Determining specific needs of different groups of novice teachers may result in more effective professional development and pre-service preparation. Teachers need adequate training to feel prepared, since preparedness and self-efficacy are directly linked to success in the classroom (Bandura, 1977; Brown et al., 2015; Soodack & Podell, 1997; Yilmaz, 2011).

Special education teachers need additional skills and knowledge as they face unique challenges and responsibilities (Tillman et al., 2011). “One variable that has consistently been found to have influenced educators’ attitudes is disability education” (Sharma et al., 2008, p. 774). Novice special education teachers tend to have negative attitudes about case management (Belknap & Taymans, 2015) and thus need additional preparation in IEP creation and compliance. Elements common to all teachers may be of greater importance with teachers of students receiving special services, such as making the physical environment conducive to learning, communicating with guardians about student learning, managing classroom behavior, and connecting existing knowledge with content to be learned (Tillman et al., 2011).

Alternatively certified teachers tend to receive less student-teaching experience than traditionally certified teachers. As a result, they tend to feel less prepared in classroom management, assessment, and psychological support (Koehler et al., 2013). Student teaching is of vital importance to teacher preparation (Brown et al., 2015; Lee et al., 2012; Turner et al., 2004), and the more, the better (Kee, 2011). At least eight weeks of student teaching can dramatically impact a preservice teacher’s sense of efficacy (Kee, 2011). Student teaching

involves direct experience and observation, imitation, and modeling, which are all important elements of social learning (Bandura, 1977).

Preparedness to teach includes several common factors outlined in this literature review. An analysis and synthesis of the extant literature reveals the following ten most common elements of self-efficacy in teaching: (a) Teachers must feel confident in classroom management (Bandura, 1997; Brown et al., 2015; Kee, 2011; Koehler et al., 2013; Lee et al., 2012; O'Neill & Stephenson, 2012; Tschannen-Moran & Woolfolk Hoy, 2001; Woolfolk Hoy & Spero, 2005); (b) Teachers must feel prepared in lesson planning, asking students questions, and preparing for instruction (Bandura, 1997; Brown et al., 2015; Kee, 2011; Koehler et al., 2013; Lee et al., 2012; Tschannen-Moran & Woolfolk Hoy, 2001); (c) Teachers require pedagogical content knowledge (Bandura, 1997; Brown et al., 2015; Kee, 2011; Koehler et al., 2013; Lee et al., 2012; Woolfolk Hoy & Spero, 2005); (d) Assessment of student learning is an aspect of teacher preparation (Kee, 2011; Koehler et al., 2013; Tschannen-Moran & Woolfolk Hoy, 2001; Woolfolk Hoy & Spero, 2005); (e) Teachers must feel capable of differentiating instruction for a diverse group of students (Casey & Gable, 2011; Koehler et al., 2013; Tschannen-Moran & Woolfolk Hoy, 2001; Woolfolk Hoy & Spero, 2005); (f) Researchers noted that prepared teachers feel comfortable promoting family involvement (Bandura, 1997; Brown et al., 2015; Lee et al., 2012; Tschannen-Moran & Woolfolk Hoy, 2001); (g) Teachers should feel prepared to provide support for the psychological and behavioral needs of students (Bandura, 1997; Koehler et al., 2013; Tschannen-Moran & Woolfolk Hoy, 2001); (h) Teachers should feel capable of motivating students to learn (Bandura, 1997; Tschannen-Moran & Woolfolk Hoy, 2001); (i) Teachers should be prepared to implement cooperative learning in the classroom (Bandura, 1997; Woolfolk Hoy & Spero,

2005); and (j) Teachers should be confident in their professionalism (Brown et al., 2015; Lee et al., 2012).

Chapter Summary

Even the best student-teaching experience may leave teachers unprepared for the complexities of the job. Woolfolk Hoy and Spero (2005) found that efficacy increased during student teaching but fell with teaching experience as a novice teacher. Therefore, additional research is needed to determine the specific gaps in preservice teachers' preparation, both in general and specific to special education and alternative certification. Future research could continue to investigate the impact of student teaching on traditional and alternative certified teachers and the minimum fieldwork necessary to improve teachers' perceptions of preparedness. Limited research has addressed special education teachers' perceptions of preparedness, particularly among students with severe disabilities (Ruppar et al., 2016).

Teachers of special education or receiving alternative certification need additional specific supports. Given the high attrition rates among novice teachers, particularly in special education, preparedness is vital. Teachers with higher self-efficacy perform better in the classroom and are more likely to stay in the field. According to the literature, successful novice special education teachers have been trained and prepared to the point that they are resilient (Belknap & Taymans, 2015), reflective, resourceful, and relentless (Bishop et al., 2010): the "4 Rs" of preparedness. As Ruppar et al. (2016) stated "Future research should examine how different types of licensure programs affect teachers' perceptions to teach students with varying disabilities across settings. More information is needed about how alternative routes to licensure affect teachers' perceptions of preparedness to meet the needs of students with severe disabilities" (p. 284).

CHAPTER THREE: METHODOLOGY

This study utilized a mixed methods research methodology. The purpose of this chapter is to introduce the methodology, and how I discovered and developed an understanding of the perceptions of novice alternatively certified special education teachers regarding their preparedness to teach. The chapter addresses the study's purpose, research questions that guided the study, its research design, participants, data collection and analysis methods, as well as a discussion regarding the trustworthiness of the study.

Purpose of the Study

The purpose of this study was to identify the perceptions and feelings of professional preparedness between traditionally and alternatively certified special education teachers, as reflected in their first three years of practice. It is my hope that the study will contribute to a better understanding of the needs of novice alternatively certified special education teachers. From the findings, leadership within schools will be able to identify better support systems and training modules for teachers, which will hopefully improve the retention rates, have a positive effect on the teacher shortage, and ultimately positively impact student achievement.

Research Questions

The research questions that guided the study were:

1. What are the perceptions of preparedness of novice alternative certified special education teachers?
2. What are the perceptions of preparedness of novice traditionally certified special education teachers?
3. What are the differences in perceptions of preparedness between the two groups of teachers?

Research Process

The study was guided by the framework provided by Crotty (1998), in which there are four elements of the research process: epistemology, theoretical perspective, methodology, and methods (p. 3). The four elements build one upon the other, providing a scaffolded approach to establish the structure of the study (see Figure 3). Crotty's framework provides a baseline for the use of research terms that are used in different and sometimes contradictory ways (p. 1), as well as a research structure for the study.

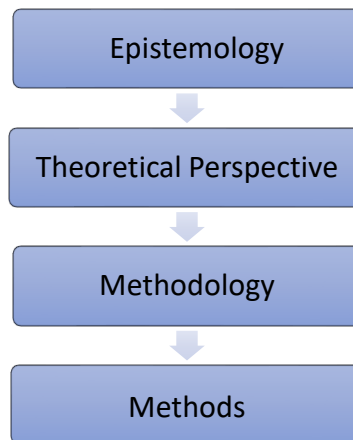


Figure 2 Research Process (adapted from Crotty, 1998, The Foundations of Social Research)

Epistemology refers to the nature of knowledge, and “how we know what we know” (Crotty, 1998, p. 8). In this study, it is presumed that the participants’ knowledge of teacher preparation and certification is not an endowed feature. It is not objective but is subjective and is developed and constructed through their own experience. The notion that knowledge is constructed forms the epistemological basis of the study. This is referred to as constructionism (p. 8). The knowledge is constructed through interaction with the participants.

The theoretical perspective that informed the study is interpretivism. This perspective provides a context for the process. It guides the articulation of the assumptions in the study. The study assumes, for example, that the participants are social beings, and dwell in a world of

common meanings, habits, and practices. Interpretivism allows for understanding as reflected by the person's experience as a social being (Crotty, 1998, p. 9). The study is concerned with how the participants experienced teacher preparation and certification, how they experienced this phenomenon and how they give meaning to the phenomenon. I am interested to know the lived experience of the participants and how they interpret their experiences (Crotty, p. 8). Finally, the methods utilized in the study were a survey instrument and semi-structured interviews. My desire is to study in depth the phenomenon of novice teachers and their teacher preparation and certification experience. Mixed methods allowed for deep interpretation of the data, i.e. survey and interview responses, in order to best describe and understand the participants' experience. This is the purpose of the study.

Setting

The study was situated in a large urban school district in Texas. The size of the district provided ample opportunity to enlist the number of expected participants for the study. Due to the number of potential participants, I was able to distribute the survey and conduct interviews and collect the necessary data within a six-week period. While the study is not particular to the school district, teacher record information was obtained to verify that those teachers in the district met this criteria and who were subsequently contacted to participate in the study.

Participants

A total of 68 completed surveys were collected: 66 (97.06%) paper surveys and two online surveys were completed as part of this study. While the first conference (35 surveys collected) had teachers from various grade levels, all the surveys collected from the second conference were from elementary school special education teachers (31 returned surveys). As part of this initial survey, each included a request for participants to sign up for a one-on-one

interview. The follow up interviews were conducted from June 15-August 23, 2019. A total of five (out of a possible 12) novice special education teachers who self-selected to participate.

Data Collection and Instrumentation

Data collection included the utilization of two instruments: (a) a survey, and (b) semi-structured interviews. As a mixed methods study, I wanted to ensure that both forms of data were given equal priority. I applied a concurrent triangulation design. I collected each data set concurrently, yet separately, and they were integrated during data analysis (Hanson et al., 2005). I wanted to verify the findings derived from one type of data with those derived from the other (Small, 2011).

The survey instrument consisted of demographic items (Items 1-8) and one overall perception of preparedness survey item (Item 9). The remaining survey items were developed using the documentation from four different organizations: teaching frameworks (Competency Based Teacher Education Framework), educator preparation (Council for the Accreditation of Educator Preparation), addressing the needs of exceptional students (Council for Exceptional Students), and teaching standards (National Board for Professional Teaching Standards). The items were grouped accordingly: Competency Based Teacher Education Framework (Items 10-15), Council for the Accreditation of Educator Preparation (Items 16-20), Council for Exceptional Students (21-30), and National Board for Professional Teaching Standards (Items 31-42). Survey items 10-42 were multiple-choice in design, with responses listed according to a Likert scale: (a) strongly agree; (b) agree; (c) disagree; (d) strongly disagree; and (e) unsure. Additionally, item 43 was an open-ended item that allowed for the survey respondents to offer additional information not listed anywhere else and item 44 provided an opportunity for the

respondents to sign up for the one-on-one interview. The survey data was the foundation of my quantitative data.

A semi-structured interview with five participants created the basis of my qualitative data. I wanted to ensure that all the conditions for obtaining the most thorough and valid input from the participants was in place. An interview of 45-60 minutes in duration was held with each of the five participants. A series of questions (see Appendix A) were asked of each participant, and as a semi-structured interview, additional questions were interjected in order to encourage further elaboration or clarification. The interviews were voice-recorded and transcribed. The recordings allowed for listening and re-listening to interviews, which encouraged recognition of vocal cues that evoked emphasis, and were cause for re-listening, ensuring salience and pertinence. An informed consent form was completed by each participant prior to the interviews. I presumed that the participants acknowledged the informed consent form as assurance of confidentiality, in order to be at-ease responding openly and honestly throughout the interview. I strived to establish an environment where participants were comfortable, so that what they had to say was highly valued. While the recorded interviews were the primary qualitative data, field notes recorded during and after each interview, and artifacts teachers may have offered during the interviews were another data source.

The data collection adhered to the protocol outlined by Curtis, Gesler, Smith, & Washburn (2000), which includes the following:

- The method of drawing samples is not based on theories of the statistical probability of selection, but on other, purposive or theoretical sampling criteria.
- Samples are small, are studied intensively, and each one typically generates a large amount of information.

- Samples are not usually wholly pre-specified, and instead, the selection is sequential (by a rolling process, inter-leafed with coding and analysis).
- Sample selection is conceptually driven, either by the theoretical framework which underpins the research question from the outset or by an evolving theory which is derived inductively from the data as the research proceeds.
- Qualitative research should be reflexive and explicit about the rationale for case selection, because there are ethical and theoretical implications arising from the choices which are made to include particular cases and exclude others.
- Qualitative samples are designed to make possible analytic generalizations (applied to the wider theory on the basis of how selected cases 'fit' with general constructs), but not statistical generalizations (applied to wider populations on the basis of representative statistical samples). (p. 1002).

Data Analysis Procedures

The data were analyzed according to a concurrent design; whereby the quantitative and qualitative data were collected and analyzed at the same time. Each data set was analyzed separately and subsequently integrated (i.e., triangulation). They were combined to use results from one method to elaborate on results from the other method, applying the notion of complementarity, as well as using one method to extend the breadth of the other. The purpose of triangulation was to converge the results, in order to see how they complemented one another and possibly uncover some unique perspective that otherwise might be missed by applying a single method (Hanson et al., 2005). Prior to integration, the survey data (quantitative) were analyzed to tabulate and compare responses. The interview responses (qualitative) were analyzed to identify emergent themes and how they might relate one to another (Creswell, 2013).

The survey was distributed in digital format. All participants completed the survey in its online version, utilizing a weblink that I provided. The survey was designed and distributed via SurveyMonkey, which also allowed for data analytics. When all participants completed the survey, I applied the data analytics to discover the mean, median, and mode for each survey item. One table per survey item was created based on the analysis. Survey items 10-42 also included space for open-ended comments. The comments were included in the integrated analysis. The survey data analysis comprises the first section of Chapter 4 of the study.

In qualitative research, data analysis is inductive and comparative (Merriam, 2009, p. 38). The goal is to make sense of the data—it is meaning making (p. 175). Through data analysis, I want to answer my research questions. Data analysis “consists of examining, categorizing, tabulating, testing, or otherwise recombining both quantitative and qualitative evidence to address the initial propositions of a study” (Yin, 2003, p. 109), and consists of five techniques for data analysis: pattern matching, explanation building, time-series analysis, program logic models, and cross-case synthesis (Yin, 2003, p. 116-117). For this case study, I used a pattern matching technique.

Upon completion of the individual interviews, the individual responses were analyzed and organized based on responses to corresponding questions, in order to ultimately determine the difference, if any, exists between the two groups of novice special education teachers. “The challenge is to construct categories or themes that capture some recurring pattern that cuts across your data” (Merriam, 2009, p. 161). My analysis also included reviewing my fieldnotes and artifacts offered by the participants. The interview data analysis forms the second section of Chapter 4.

Triangulation

An important concern for the study is that other researchers, readers, and this researcher are confident in how the study was conducted and its results. I conducted the study to ensure that any insights and conclusions are authentic and trustworthy (Creswell, 2007; Merriam, 2009); that it is evident careful attention was given to the manner “in which the data are collected, analyzed, and interpreted, and the way in which the findings are presented” (Merriam, 2009, p. 209). As a mixed method study, *triangulation* is inherent in the methodological approach. (Creswell, 2013; Hansom et al., 2005).

Triangulation refers to the use of “multiple and different sources” to provide corroborating evidence (Creswell, 2007, p. 208). This allows for confirming emerging themes. It means comparing and cross-checking the data collected (interview, artifacts, and fieldnotes). Triangulation allowed me to confirm what I heard and recorded, with my fieldnotes, and the artifacts the participants shared are consistent.

Peer review in the study is sharing data with my treatise committee chair, and potentially other committee members and professional peers, to confirm that what I have observed or heard, and now think is the same as their perception and understanding. I want them to play “devil’s advocates” to ensure that I am honest in developing my emerging themes. Peer review presumes a search for congruence of emerging themes (Creswell, 2007; Merriam, 2009).

I utilized the thick description strategy to fortify the study. According to Merriam (2009), rich, thick description is “providing enough description to contextualize the study, such that readers will be able to determine the extent to which their situations match the research context” (p. 229). I included detailed descriptions to enable anyone who reads the study to

transfer the information to another setting. Thus, I was mindful to develop thick, rich descriptions in my data analysis.

Bias and Role of the Researcher

In the study, I was the primary instrument of data collection, including shortcomings and biases that could have impact the study. “In qualitative research, the researcher is the primary instrument for data collection and analysis” (Merriam, 2009, p. 15). The challenge was to remain mindful of and minimize any bias. The topic and purpose of the study are of personal interest to me, are informed by my professional experience. I was, therefore, somewhat anxious to see what I discovered. However, I was cautious to remain objective and not impose my expectations or preferences onto the study. I was mindful that the process be inductive, and any ideas or concepts that arose from the study came from the data, regardless of my interests.

Ethical and Data Security Considerations

According to Merriam (2009), “the protection of subjects from harm, the right to privacy, the notion of informed consent, and the issue of deception all need to be considered” (p. 230), when preparing and conducting the study. In compliance with university guidelines, I followed the Institutional Review Board (IRB) process and awaited university approval prior to commencing my research project. While conducting the study, I maintained participants’ confidentiality, I assigned a pseudonym to each participant, and only my treatise committee chair and I know the true identity of participants. Interview recordings, transcripts, and fieldnotes were accessible to my treatise committee and myself. All recordings, transcripts, and fieldnotes will be destroyed one year from the successful final defense of the treatise. When participants were selected, each completed an informed consent form, which provided the details of the study, the parameters of their involvement, and an assurance of their confidentiality. The

completed informed consent forms will be stored with the data and will be destroyed at the same time as the data is destroyed.

Trustworthiness: Validity and Reliability

Regarding case studies, it is imperative to ensure that the case study is valid, since “people who have been critical of case studies, often point to the fact that case study investigators fail to develop a sufficiently operational set of measures and that ‘subjective’ measures are used to collect data” (Yin, 2003, p. 35). According to Yin (2003), there are four points of consideration for validity:

- **Construct validity:** Testing the responses to other studies that have tested novice teacher perception of preparedness.
- **Internal validity:** Ensuring that the number of novice SPED teachers is limited to alternatively certified and traditionally certified.
- **External validity:** I will limit the Hawthorne effect, by conducting the study at the end of the teachers’ first year of teaching.
- **Reliability:** By using current research methods, ensuring the process is clearly articulated for future researchers to follow, and by researching the teachers’ own perceptions of their experiences, I allow for a reliable research project.

Following the work of Yin (2003), I have made every effort and taken every precaution to ensure that this case study was constructed from previous research (to ensure construct validity). I also ensured that this study only included special education teachers from a single school district and ensured that the study was conducted during the summer of a school year (to ensure both internal and external validity. Lastly, using the work of Yin (2003) and Creswell

(2007) as a basis for the research methods, I ensured a clear and reliable path for other researchers to follow up on my work.

Chapter Summary

This chapter provided the framework and details for conducting the study. This mixed-methods study surveyed 68 special education teachers through a Likert scale questionnaire teaching within the district. Additionally, a follow up interview with five novice alternatively certified special education teachers in a formal in-depth interview process focused on perceptions of preparedness of these five novice special education teachers. This chapter also included sections regarding the purpose and research questions that guided the study, the research design of the study, the selection of participants, how data will be collected and analyzed, the study's validity and reliability, and ethical considerations pertinent to the study. The impetus of this chapter was to gain an additional layer of understanding of the perception of preparedness of novice special education teachers.

CHAPTER FOUR: DATA ANALYSIS

The purpose of this study is to determine what novice alternatively certified special education teachers face during their initial years in the classroom. The goal of this study is to determine the perceptions of preparedness of novice alternatively certified special education teachers and their differences compared to novice traditionally certified special education teachers. A secondary goal of this study is to determine what district staff (campus principal and district leadership) can do to support these teachers during their initial years in the classroom. This is intended to ensure retention, since a constant churn of special education teachers “threatens the quality of education that students with disabilities receive” (Billingsley, 2004).

This study answered the following research questions.

1. What are the perceptions of preparedness of novice alternatively certified special education teachers?
2. What are the perceptions of preparedness of novice traditionally certified special education teachers?
3. What are the differences in perceptions of preparedness between the two groups of teachers?

This chapter presents the data collected from three sources: (a) 68 special education teachers who completed the survey instrument, (b) survey open-ended comments, and (c) five one-on-one semi-structured interviews with alternatively certified special education teachers (See Figure 1: Data Sources).

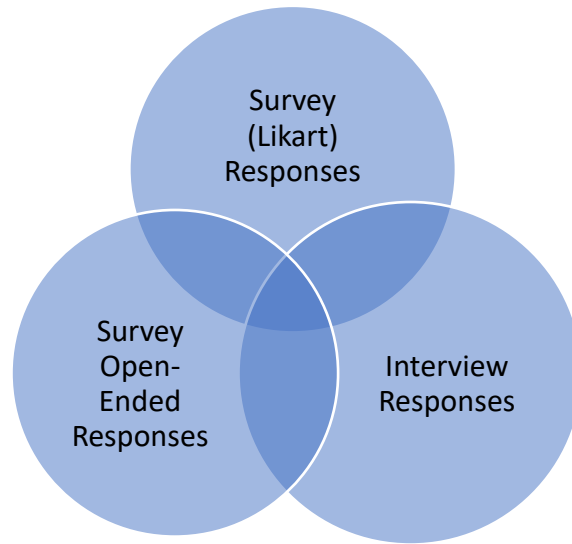


Figure 3 Data Sources

I developed the survey based on Competency-Based Teacher Education (Gervais, 2016), the Council for Accreditation of Educator Preparation (2013), Council for Exceptional Children (2013), and the National Board of Teaching Standards (2010). The questions for the one-on-one interviews were developed from the work by Bledsoe, Trotti, Hodge, & Talbert (2016) that focused on the work of early career teachers and on the study by Ruppar, Neeper, & Dalsen, (2016) dealing with the perceptions of preparedness by Special Education Teachers.

Data Collection

The data for this study was collected during the summer of 2019 and consisted of responses to a survey instrument and responses during semi-structured interviews. The survey was distributed to teachers in the school district, shortly after receiving permission from the school district to conduct the study. The survey was distributed via email that included a hyperlink to a digital SurveyMonkey version. However, there was a very limited response to the online survey. During this same period, the district was conducting a special education teacher summer training. I requested and was granted permission to enlist participants and distributed

paper copies of the study to special education teachers in attendance. The collection of the paper study took place on June 11-13, 2019. The district hosted an additional training session prior to the start of the current school year (August 20-21, 2019). Permission was obtained to distribute the survey during the conference. A total of 68 completed surveys were collected: 66 (97.06%) paper surveys and two online surveys were completed as part of this study. While the first conference (35 surveys collected) had teachers from various grade levels, all the surveys collected from the second conference were from elementary school special education teachers (31 returned surveys). As part of this initial survey, there was a request for participants to sign up for a one-on-one interview. The follow-up interviews were conducted from June 15-August 23, 2019. A total of five (out of 12) novice special education teachers self-selected to participate in the follow-up interviews.

Survey Results

This portion of the study focuses on determining whether there is a difference between the novice alternatively certified special education teachers and their traditionally certified peers in four domains. A 5-point Likert scale was utilized to elicit the participants' perceptions as: strongly agree, agree, disagree, strongly disagree and not sure as response types.

The survey itself consisted of demographics items (Items 1-8) and one overall perception of preparedness survey item (Item 9). The remaining survey items were developed using the documentation from four different organizations: teaching frameworks (Competency Based Teacher Education Framework), educator preparation (Council for the Accreditation of Educator Preparation), addressing the needs of exceptional students (Council for Exceptional Students), and teaching standards (National Board for Professional Teaching Standards). The items were grouped accordingly: Competency Based Teacher Education Framework (Items 10-15), Council

for the Accreditation of Educator Preparation (Items 16-20), Council for Exceptional Students (21-30), and National Board for Professional Teaching Standards (Items 31-42). Item 43 was an open-ended item that allowed for the survey respondents to offer additional information not listed elsewhere and item 44 provided an opportunity for the respondents to sign up for the one-on-one interview. What follows is an in-depth review of the individual responses for each of the items, along with the averages and analysis of sets of items for the groups with a thorough review of the individual groups followed up by an analysis of the four subgroups in total.

Demographics

Tables 1-11 display demographic information for the survey participants. According to the stated purpose of the study, all respondents that selected between 0-1 years of experience and 2-3 years of experience were considered as novice teachers within this study and labeled as “novice teachers”.

Table 2: Response Rate of All Participants

Surveys	Paper	Online	Total	Respondents
Completed	65	1	66	68
Incomplete	1	0	1	
Blank	0	1	1	
Returned Surveys	66	2	68	
% Returned	98.48%	1.52%	97.06%	

Of the 66 paper copy responses that were returned over the course of both training sessions, 65 (98.48%) were completed and one (1.52%) paper survey was returned incomplete. Of the two online surveys that were completed, one was returned completed and one survey was returned blank (consent was given but all items were skipped). Of the 68 total returned surveys, 66 (97.06%) were completed by paper surveys, and two (2.94%) were completed online.

Table 3: Response Rate of Novice Special Education Teacher Participants

Survey	Paper	Online	Total	Respondents
Novice Surveys	15	0	15	15
Completed	15	0	15	
Incomplete	0	0	0	
Blank	0	0	0	
Percentage	100%	0%		

Of the 15 novice respondents, 15 (100%) of the respondents completed the survey using the paper survey and 0 (0%) completed the survey online.

Table 4: Teacher Gender of All Participants

Gender	Female	Male	Skipped Item	Response
SPED Teacher	57	9	2	68
Percentage	83.82%	13.24%	2.94%	

Of the 68 special education teachers who completed the survey, 57 of the teachers were female (83.82%) and nine were male (13.24%). One (1.47%) respondents skipped this survey item.

Table 5: Teacher Gender of Novice Special Education Teacher Participants

Gender	Female	Male	Skipped Item	Response
Novice	11	3	1	15
Percentage	78.57%	21.43%	7.14%	

Of the 15 novice respondents, 11 of the respondents were female (78.57%) and three were male (21.43%). One (7.14%) respondent skipped this item.

Table 6: Teaching Experience of All Participants

Experience	0-1	2-3	4+ years	Skipped Item	Response	Response Rate
SPED Teacher	9	6	53	1	68	98.5%
Percentage	13.24%	8.82%	77.94%	1.47%		

Of the 68 special education teachers that completed the survey, nine (13.24%) teachers indicated that they had between 0-1 years of teaching experience, six (8.82%) had between 2-3 years of teaching experience, and 53 (77.94%) had four or more years of teaching experience. One (1.47%) respondent skipped this item.

Table 7: Teaching Experience of Novice Special Education Teacher Participants

Experience	0-1	2-3	4+ years	Skipped Item	Response	Response Rate
Novice	9	6	N/A	0	15	100%
Percentage	60%	40%				

Of the 15 novice respondents, 9 (60%) of the teachers had between 0-1 years of experience and 6 (40%) of the respondents had between 2-3 years of experience.

Table 8: Teaching Experience of All Participants

Years	# of Respondents	% of Respondents	Response Rate of Respondents
0-1	9	13.24%	
2-3	6	8.82%	
4-7	14	20.59%	
8-10	8	11.76%	
11-15	10	14.71%	
16-20	11	16.18%	
20+	9	13.24%	
Skipped	1	1.47%	98.5%

Of the 68 special education teachers that completed the survey, nine teachers had 0-1 years of teaching (13.24%), six had between 2-3 years of teaching experience (8.82%), 14 of the respondents had between 4-7 years of teaching experience (20.59%), eight of the respondents

had between 8-10 years of teaching experience (11.76%), 10 of the respondents had between 11-15 years of teaching experience (14.71%), 11 of the respondents had between 16-20 of teaching experience (16.18%), and nine of the respondents had over 20 years of teaching experience (13.24%). One respondent skipped this item (1.47%). Of the 15 novice respondents, nine (60%) of the teachers had between 0-1 years of experience and six (40%) of the respondents had between two to three years of experience.

Table 9: Certification Type of All Participants

Certification	Traditional	Alternative	Skipped Item	Response Rate
SPED Teacher	39	28	1	98.5%
Percentage	57.35%	41.18%	1.47%	

Of the 68 special education teachers that completed the survey, 39 (57.35%) of the respondents were AC and 28 (41.18%) of the respondents were traditionally certified. One (1.47%) respondent skipped this item.

Table 10: Certification Type of Novice Special Education Teacher Participants

Certification	Traditional	Alternative	Skipped Item	Response Rate
Novice	12	3	0	100%
Percentage	80%	20%	0%	

Of the 15 novice respondents, 12 (80%) of the teachers were alternative certified and three (20%) of the respondents were traditionally certified.

Table 11: School Type of All Participants

Level	Elementary	Middle School	High School	Other	Skipped Item	Response Rate
SPED Teacher	54	9	1	3	1	98.5%
Percentage	79.41%	13.24%	1.47%	4.41%	1.47%	

Of the 68 special education teachers that completed the survey, 54 were elementary teachers (79.41%), nine were middle school teachers (13.24%), one was a high school teacher (1.47%), and three were other teacher types (4.41%). One respondent skipped this item (1.47%).

Table 12: School Type of Novice Special Education Teacher Participants

Level	Elementary	Middle School	High School	Other	Skipped Item	Response Rate
Novice	13	2	0	0	0	
Percentage	86.67%	13.33%	0%	0%	0%	

Of the 15 novice respondents, 13 (86.67%) of the teachers were from elementary schools and two (13.33%) of the respondents were from middle schools.

Survey Item Analysis

The analysis focused on addressing the differences between the means of each of the items, by giving a score to each option (Strongly Agree = 4, Agree = 3, Disagree = 2, Strongly Disagree = 1, and Unsure was not scored for the average). The data calculated the score of the group using the mean over all the items in this group. The mean score of the alternatively certified teacher cohort and the mean score of the traditionally certified teacher cohort were then used to discuss the differences between the two groups.

Item 9: Perception of Preparedness of Special Education Teachers. This was the initial item used to see if the different type of certification (alternative vs traditional) had an impact on how prepared teachers felt that their program had prepared them overall.

Item 9: Overall, I feel that my program thoroughly prepared me to be a successful special education teacher.

Table 13: Response Rate by All Participants

Teacher Type	Strongly Agree	Agree	Disagree	Strongly Disagree	Not Sure	Skipped Item	Total Respondents
Total	18	22	20	4	2	2	68
Respondents	7	10	10	0	1	1	
Traditional	11	12	10	4	1	0	
Alternative	0	0	0	0	0	1	
Skipped Item Percentage	26.47%	32.35%	29.41%	5.88%	2.94%	2.94%	

There was a total of 66 (97.06%) respondents to this item. Two (2.94%) of the respondents skipped this item and are listed in the far-right column under “skipped items”. Of the 18 (26.47%) respondents who strongly agreed, seven were traditionally certified and 11 were alternatively certified, of the 22 (32.35%) that agreed, 10 were traditionally certified and 12 were alternatively certified, of the 20 (29.41%) who disagreed, 10 were traditionally certified and 10 were alternatively certified, of the four (5.88%) that strongly disagreed, all four were alternatively certified, and two (2.94%) responded that they were unsure, with one (1.47%) who was traditionally certified and alternatively certified. Two (2.94%) respondents skipped this item. One of them was traditionally certified and the other also skipped the teacher type.

Table 14: Response Rate by Novice Special Education Teacher Participants

Teacher Type	Strongly Agree	Agree	Disagree	Strongly Disagree	Not Sure	Skipped Item	Total Respondents
Novice	6	2	5	2	0	0	15
Traditional	2	0	1	0	0	0	
Alternative	4	2	4	2	0	0	
Percentage	40%	13.33%	33.33%	13.33%	0	0	

Of the 15 novice respondents, six respondents (40%) strongly agreed, two agreed (13.33%), five (33.33%) disagreed and two (13.33%) strongly disagreed. Of the six (40%) of the respondents who strongly agreed, two were traditionally certified and four were alternatively certified, of the two (13.33%) that agreed, both were alternative certified, of the five (33.33%)

who disagreed, one was traditionally certified and four were alternatively certified, and of the two (13.33%) that strongly disagreed, two were alternatively certified.

Table 15: (Comments) Response Rate by Novice Special Education Teacher Participants

Respondent Comments	
AC Teacher #1 #32	The ACP Program really provided me with a lot of intensive training, which allowed me to learn a lot about Special Ed.
TC Teacher #1 #30	Could have included more real-life classroom experiences.
TC Teacher #2 #29	The program was helpful generally covering the different classifications. I wish they gave us more in-depth ways of writing IEPs and exploring more in-depth programs available for different children with different needs. Thankfully, there are many organizations that give Professional Developments for these needs.
AC Teacher #2 #2	My program provided the bare basics. Special education is intricate. Teachers need to receive all of support and training prior to teaching special education.

Competency Based Teacher Education Framework

In Items 10-15, the focus was to determine how teachers felt that their program prepared them for a variety of school learning environments. It is based on the concept of Competency Based Teacher Education Framework (CBE). The concept of CBE has no single based definition and “has been defined in multiple ways and interpreted differently across academic programs” (Gervais, 2016, p. 98). The study further explains that:

CBE is defined as an outcomes-based approach to education that incorporates modes of instructional delivery and assessment efforts designed to evaluate mastery of learning by students through their demonstration of the knowledge, attitudes, values, skills, and behaviors required for the degree sought. (Gervais, 2016, p. 99)

While there is lack of consensus on what competency-based teacher education is, the focus of the CBE, is to “provide an overall structure for the education mode” (Gervais, 2016, p.100). For this study, the main components that were focused on were how well the teachers stated that their

individual programs prepared them for their school culture, learning progression, learning pace, preparation to teach (instruction), assessment of student learning, and grading effectively.

Item 10: My program thoroughly prepared me for a variety of school learning environments.

Table 16: Response Rate by All Participants

Teacher Type	Strongly Agree	Agree	Disagree	Strongly Disagree	Not Sure	Skipped Item	Total Respondents
Total	15	31	16	3	1	2	68
Respondents	6	14	7	0	0	0	
Traditional	9	17	9	3	1	1	
Alternative	0	0	0	0	1	1	
Skipped item Percentage	22.06%	45.59%	23.53%	4.41%	1.47%	2.94%	

For item 10, there was a total of 66 (97.06%) respondents that participated in this item. Two (2.94%) of the respondents skipped this item and are listed in the far-right column under “skipped items”. One (1.47%) of the two respondents that skipped this item was alternatively certified, while the other individual that skipped this item also skipped the teacher type and is listed as skipped items and skipped item. Of the 15 (22.06%) respondents who strongly agreed, six were traditionally certified and nine were alternatively certified, of the 31 (45.49%) that agreed, 14 were traditionally certified and 17 were alternatively certified, of the 16 (23.53%) who disagreed, seven were traditionally certified and nine were alternatively certified, of the three (4.41%) that strongly disagreed, all three were alternatively certified, and of the two (2.94%) respondents who said that they were unsure, one (1.47%) was traditionally certified and alternatively certified. One (1.47%) of the two respondents that skipped this item was traditionally certified and the other individual that skipped this item also skipped the teacher type and as is listed as skipped item.

Table 17: Response Rate by Novice Special Education Teacher Participants

Teacher Type	Strongly Agree	Agree	Disagree	Strongly Disagree	Not Sure	Skipped Item	Total Respondents
Novice	4	5	5	1	0	0	15
Traditional	2	0	0	1	0	0	
Alternative	2	5	5	0	0	0	
Percentage	26.67%	33.33%	33.33%	6.67%	0%	0%	

Of the 15 novice respondents, four (26.67%) strongly agreed, five (33.33%) agreed, five (33.33%) disagreed and one (6.67%) was not sure. Of the four (26.67%) respondents who strongly agreed, two were traditionally certified and two were alternatively certified, of the five (33.33%) that agreed, all five were alternatively certified, of the five (33.33%) who disagreed, all five were alternatively certified, and the one (6.67%) that strongly disagreed was traditionally certified.

Table 18: Comments

Respondent Comments	
AC Teacher #1 #32	Yes, I had the opportunity to learn about a variety of school environments by classroom observations.
TC Teacher #1 #30	More in-class experience needed.
TC Teacher #2 #29	My program was helpful generally covering the different classifications. I wish they gave us more in-depth ways of writing IEPs and exploring more in-depth programs available for different children with different needs.
AC Teacher #2 #2	My program gave me a basic understanding of all school environment and expectations.

Item 11: My program thoroughly prepared me for appropriate student learning progression.

Table 19: Response Rate by All Participants

Teacher Type	Strongly Agree	Agree	Disagree	Strongly Disagree	Not Sure	Skipped Item	Total Respondents
Total	16	26	20	1	4	1	68
Respondents	7	10	9	0	2	0	
Traditional	9	16	11	1	2	0	
Alternative	0	0	0	0	0	1	
Skipped item Percentage	23.53%	38.24%	29.41%	1.47%	5.88%	1.47%	

For item 11, there was a total of 67 respondents that participated. One of the respondents skipped this item and is listed in the far-right column under “skipped items”. This also skipped the teacher type, which is listed as skipped item. Of the 16 (23.52%) respondents who strongly agreed, seven were traditionally certified and nine were alternatively certified, of the 26 (38.24%) that agreed, 10 were traditionally certified and 16 were alternatively certified, of the 20 (29.41%) who disagreed, nine were traditionally certified and 11 were alternatively certified, the one (1.47%) respondent who strongly disagreed was alternatively certified, and of the four (2.94%) respondents who were unsure, two were traditionally certified and two were alternatively certified. The one (1.47%) respondent that skipped this item, also skipped the teacher type, which is listed as skipped item.

Table 20: Response Rate by Novice Special Education Teacher Participants

Teacher Type	Strongly Agree	Agree	Disagree	Strongly Disagree	Not Sure	Skipped Item	Total Respondents
Novice	5	6	3	0	1	0	15
Traditional	2	1	0	0	1	0	
Alternative	3	5	3	0	0	0	
Percentage	33.33%	40%	20%	0%	6.67%	0%	

Of the 15 novice respondents, five (33.33%) strongly agreed, six (40%) agreed, three (20%) disagreed and one (6.67%) was not sure. Of the five (33.33%) respondents who strongly

agreed, two were traditionally certified and three were alternatively certified, of the six (40%) that agreed, one was traditionally certified and five were alternatively certified, of the three (20%) who disagreed, all three were alternatively certified, and the one (6.67%) that was not sure was alternatively certified.

Table 21: Comments

Respondent Comments	
AC Teacher #1 #32	Yes, the sessions were very beneficial.
TC Teacher #1 #30	I didn't know how far behind or low students were until I started teaching.
TC Teacher #2 #29	We learned about measuring IEP goals. I? wish I had learned more about collecting data and then looking for interventions when analyzing the data.

Item 12: My program thoroughly prepared me for appropriate student learning pace.

Table 22: Response Rate by All Participants

Teacher Type	Strongly Agree	Agree	Disagree	Strongly Disagree	Not Sure	Skipped Item	Total Respondents
Total	8	34	21	1	3	1	68
Respondents	4	14	9	0	1	0	
Traditional	4	20	12	1	2	0	
Alternative	0	0	0	0	0	1	
Skipped item Percentage	11.76%	50%	30.88%	1.47%	4.41%	1.47%	

For item 12, there was a total of 67 respondents who participated. One of the respondents skipped this item and is listed in the far right column under “skipped items”. This respondent also skipped the teacher type and is listed as skipped items and skipped item. Of the 8 (11.76%) respondents who strongly agreed, four were traditionally certified and four were alternatively certified, of the 34 (50%) that agreed, 14 were traditionally certified and 20 were alternatively certified, of the 21 (30.88%) who disagreed, nine were traditionally certified and 12 were alternatively certified, the one (1.47%) respondent strongly disagreed was alternatively certified, and three (4.41%) of the respondents that responded that they were unsure, one was traditionally

certified and two were alternatively certified. The one (1.47%) respondent that skipped this item also skipped the teacher type and is listed as skipped item.

Table 23: Response Rate by Novice Special Education Teacher Participants

Teacher Type	Strongly Agree	Agree	Disagree	Strongly Disagree	Not Sure	Skipped Item	Total Respondents
Novice	3	7	4	0	1	0	15
Traditional	2	1	0	0	0	0	
Alternative	1	6	4	0	1	0	
Percentage	20%	46.67%	26.67%	0%	6.67%		

Of the 15 novice respondents, three (20%) strongly agreed, seven (46.67%) agreed, four (26.67%) disagreed and one (6.67%) was not sure. Of the three (20%) respondents who strongly agreed, two were traditionally certified and one was alternatively certified, of the seven (46.47%) that agreed, one was traditionally certified and six were alternatively certified, of the four (26.67%) who disagreed, all four were alternatively certified, and the one (6.67%) that was not sure was alternatively certified.

Table 24: Comments

Respondent Comments	
TC Teacher #2 #29	[I] had some courses where we had to plan, prepare and rehearse lessons. This helped with our pacing skills.

Item 13: My program thoroughly prepared me for multiple modalities of instruction.

Table 25: Response Rate by All Participants

Teacher Type	Strongly Agree	Agree	Disagree	Strongly Disagree	Not Sure	Skipped Item	Total Respondents
Total	13	36	14	1	3	1	68
Respondents	6	18	4	0	1	0	
Traditional	7	18	10	1	2	0	
Alternative	0	0	0	0	0	1	
Skipped item	19.12%	52.94%	20.59%	1.47%	4.41%		
Percentage							

For item 13, a total of 67 (98.53%) respondents participated. The one respondent who skipped this item is listed in the far-right column under “skipped items”. That respondent also

skipped the teacher type and is listed as skipped items and skipped item. Of the 13 (19.12%) respondents who strongly agreed, six were traditionally certified and seven were alternatively certified, of the 36 (52.94%) that agreed, 18 were traditionally certified and 18 were alternatively certified, of the 14 (20.59%) who disagreed four were traditionally certified and 10 were alternatively certified, one (1.47%) respondent who strongly disagreed was alternatively certified, and three (4.41%) of the respondents that responded that they were unsure, one was traditionally certified and two were alternatively certified. The one (1.47%) respondent that skipped this item also skipped the teacher type and as is listed as skipped item.

Table 26: Response Rate by Novice Special Education Teacher Participants

Teacher Type	Strongly Agree	Agree	Disagree	Strongly Disagree	Not Sure	Skipped Item	Total Respondents
Novice	3	8	3	0	1	0	15
Traditional	2	1	0	0	0	0	
Alternative	1	7	3	0	1	0	
Percentage	20%	53.33%	20%	0%	6.67		

Of the 15 novice respondents, three respondents (20%) strongly agreed, eight (53.33%) agreed, three (20%) disagreed and one (6.67%) was not sure. Of the three (20%) respondents who strongly agreed, two were traditionally certified and one was alternatively certified, of the eight (53.33%) that agreed, one was traditionally certified and seven were alternatively certified, of the three (20%) who disagreed, all three were alternatively certified, and the one (6.67%) that was not sure was alternatively certified. There were no open-ended comments to this item.

Item 14: My program thoroughly prepared me for multiple modalities of assessments.

Table 27: Response Rate by All Participants

Teacher Type	Strongly Agree	Agree	Disagree	Strongly Disagree	Not Sure	Skipped Item	Total Respondents
Total	10	27	25	1	3	2	68
Respondents	5	11	11	0	1	0	
Traditional	5	16	14	1	2	1	
Alternative	0	0	0	0	0	1	
Skipped Item Percentage	14.71%	39.71%	36.76%	1.47%	4.41%		

For item 14, there was a total of 66 (97.06%) respondents that participated. Two (2.94%) of the respondents skipped this item and are listed in the far-right column under “skipped items”. One (1.475) of the two respondents that skipped this item was alternatively certified and the other individual that skipped this item also skipped the teacher type and is listed as skipped items and skipped item. Of the 10 (14.71%) respondents who strongly agreed, five were traditionally certified and five were alternatively certified, of the 27 (39.71%) that agreed, 11 were traditionally certified and 16 were alternatively certified, of the 25 (36.76%) who disagreed, 11 were traditionally certified and 14 were alternatively certified, one (1.47%) respondent strongly disagreed was alternatively certified, and 3 (4.41%) of the respondents that responded that they were unsure, one was traditionally certified and two were alternatively certified. The one (1.47%) respondent that skipped this item also skipped the teacher type and as is listed as skipped item.

Table 28: Response Rate by Novice Special Education Teacher Participants

Teacher Type	Strongly Agree	Agree	Disagree	Strongly Disagree	Not Sure	Skipped Item	Total Respondents
Novice	4	4	6	0	1	0	15
Traditional	2	0	1	0	0	0	
Alternative	2	4	5	0	1	0	
Percentage	26.67%	26.67%	33.33%	0%	6.67%	0%	

Of the 15 novice respondents, four respondents (26.67%) strongly agreed, four (26.67%) agreed, six (33.33%) disagreed, and one (6.67%) was not sure. Of the four (26.67%) of the respondents who strongly agreed, two were traditionally certified and two were alternatively certified, of the four (26.67%) that agreed, all four were alternatively certified, of the six (33.33%) who disagreed, one was traditionally certified and five were alternatively certified, and the one (6.67%) that was not sure was alternatively certified. There were no open-ended comments to this item.

Item 15: My program thoroughly prepared me to grade effectively.

Table 29 Response Rate by All Participants

Teacher Type	Strongly Agree	Agree	Disagree	Strongly Disagree	Not Sure	Skipped Item	Total Respondents
Total	12	22	22	2	8	2	68
Respondents	4	9	10	1	4	0	
Traditional	8	13	12	1	4	1	
Alternative	0	0	0	0	0	1	
Skipped Item Percentage	17.65%	32.35%	32.35%	2.94%	11.76%	2.94%	

For item 15, there was a total of 66 (97.06%) respondents that participated in this item. Two of the respondents skipped this item and are listed in the far right under “skipped items”. One of the respondents that skipped this item was alternatively certified and one respondent that skipped this item also skipped the teacher type and is listed as skipped items and skipped item. Of the 12 (17.65%) respondents who strongly agreed, four were traditionally certified and eight were alternatively certified, of the 22 (32.35%) that agreed, nine were traditionally certified and 13 were alternatively certified, of the 22 (32.35%) who disagreed, 10 were traditionally certified and 12 were alternatively certified, of the two (2.94%) respondents that strongly disagreed, one was traditionally certified and one was alternatively certified, and eight (11.76%) of the respondents that responded that they were unsure, four were traditionally certified and four were

alternatively certified. Of the two (2.94%) respondents that skipped this item, one was alternatively certified, and one also skipped the teacher type and as is listed as skipped item.

Table 30: Response Rate by Novice Special Education Teacher Participants

Teacher Type	Strongly Agree	Agree	Disagree	Strongly Disagree	Not Sure	Skipped Item	Total Respondents
Novice	5	4	3	0	3	0	15
Traditional	1	1	0	0	1	0	
Alternative	4	3	3	0	2	0	
Percentage	33.33%	26.67%	20%	0%	20%	0%	

Of the 15 novice respondents, five respondents (33.33%) strongly agreed, four (26.67%) agreed, three (20%) disagreed and three (20%) were not sure. Of the five (33.33%) of the respondents who strongly agreed, one was traditionally certified and three were alternatively certified, of the three (20%) that agreed, all three were alternatively certified, of the three (20%) that were not sure, one was traditionally certified and two were alternatively certified.

Table 31: Comments

Respondent Comments	
TC Teacher #2 #29	We planned and prepared but didn't really study in-depth about grading [from my program].

The Council for the Accreditation of Educator Preparation CAEP

The items that follow are the individual items (16-20) for this section. The items in this section are centered around The Council for the Accreditation of Educator Preparation (CAEP), while not a legal or administrative entity, is an independent educator preparation accreditor, whose mission is to advance “equity and excellence in educator preparation through evidence-based accreditation that assures quality and supports continuous improvement to strengthen P-12 student learning” (CAEP, 2018, About Us).

CAEP has articulated five standards that serve as the basis for reviewing an educator preparation program (EPP), and are based on two principles:

Solid evidence that the provider’s graduates are competent and caring educators, and there must be solid evidence that the provider’s educator staff have the capacity to create a culture of evidence and use it to maintain and enhance the quality of the professional programs they offer. (CAEP, The CAEP Standards)

The five standards expand on the two principles and serve as the backbone of the CAEP accreditation process and are designed to reflect quality programming as demonstrated in the EPP’s organizational performance, and the accreditation review (see Figure 1).

The focus of these items centered around a candidate’s perception of how well they perceived that their program prepared them for content and pedagogical knowledge, how well did the candidate perceive that their program had prepared them to impact students learning and development, how well they felt that their program had prepared them to teach effectively, and how relevant they felt that the preparation that they received was relevant for the job they faced and that the preparation they received was effective.

Item 16: My program thoroughly prepared me with content knowledge.

Table 32: Response Rate by All Participants

Teacher Type	Strongly Agree	Agree	Disagree	Strongly Disagree	Not Sure	Skipped Item	Total Respondents
Total	12	36	15	2	1	2	68
Respondents	4	18	6	0	0	0	
Traditional	8	18	9	2	1	1	
Alternative	0	0	0	0	0	1	
Skipped item Percentage	17.65%	52.94%	22.06%	2.94%	1.47%	2.94%	

For item 16, there was a total of 66 (97.06%) respondents that participated in this item.

Two (2.94%) of the respondents skipped this item and are listed in the far right under “skipped

items”. One of the two respondents that skipped this item was alternatively certified and the other individual that skipped this item also skipped the teacher type and is listed as skipped items and skipped item. Of the 12 (17.65%) respondents who strongly agreed, four were traditionally certified and eight were alternatively certified, of the 36 (39.71%) that agreed, 18 were traditionally certified and 18 were alternatively certified, of the 15 (22.06%) who disagreed, six were traditionally certified and nine were alternatively certified, of the two (2.94%) respondents that strongly disagreed, one was traditionally certified and one was alternatively certified, and one (1.47%) respondent that responded that they were unsure was alternatively certified. Of the two (2.94%) respondents that skipped this item, one was alternatively certified, and one also skipped the teacher type and as is listed as skipped item.

Table 33 Response Rate by Novice Special Education Teacher Participants

Teacher Type	Strongly Agree	Agree	Disagree	Strongly Disagree	Not Sure	Skipped Item	Total Respondents
Novice	4	7	2	1	1	0	15
Traditional	1	2	0	0	0	0	
Alternative	3	5	2	1	1	0	
Percentage	26.67%	46.67%	13.33%	6.67%	6.67%	0%	

Of the 15 novice respondents, four respondents (26.67%) strongly agreed, seven (46.67%) agreed, two (13.33%) disagreed, one (6.67%) strongly disagreed, and one (6.67%) was not sure. Of the four (26.67%) of the respondents who strongly agreed, one was traditionally certified and three were alternatively certified, of the seven (46.67%) that agreed, two were traditionally certified and five alternatively certified, of the two (13.33%) who disagreed, two were alternative certified, the one (6.67%) who disagreed was alternative certified, and the one (6.67%) that strongly disagreed was alternative certified.

Table 34 Comments

Respondent Comments	
AC Teacher #1 #32	The professional development class and the university courses helped me with the content.
TC Teacher #2 #29	My program focused mostly on the policies and methods for teaching children with disabilities, not so much on the major subjects and their content.
AC Teacher #2 #2	The program went over the expected TEKS according to the teacher's subject area, but it was very generalized.

Item 17: My program thoroughly prepared me with pedagogical knowledge.

Table 35 Response Rate by All Participants

Teacher Type	Strongly Agree	Agree	Disagree	Strongly Disagree	Not Sure	Skipped Item	Total Respondents
Total	19	37	7	1	2	2	68
Respondents	8	18	1	0	1	0	
Traditional	11	19	6	1	1	1	
Alternative	0	0	0	0	0	1	
Skipped item Percentage	27.94%	54.41%	10.29%	1.47%	2.94%	2.94%	

For item 17, there was a total of 66 (97.06%) respondents that participated in this item. Two of the respondents skipped this item and are listed in the far right under “skipped items”. One of the two respondents that skipped this item was alternatively certified and the other individual that skipped this item also skipped the teacher type and is listed as skipped items and skipped item. Of the 19 (27.94%) respondents who strongly agreed, eight were traditionally certified and 11 were alternatively certified, of the 37 (54.41%) that agreed, 18 were traditionally certified and 19 were alternatively certified, of the seven (10.29%) who disagreed, one was traditionally certified and six were alternatively certified, one (1.47%) respondent who strongly disagreed was alternatively certified, and two (2.94%) of the respondents that responded that they were unsure, one was traditionally certified and one was alternatively certified. Of the two (2.94%) respondents that skipped this item, one was alternatively certified, and one also skipped the teacher type and as is listed as skipped item.

Table 36 Response Rate by Novice Special Education Teacher Participants

Teacher Type	Strongly Agree	Agree	Disagree	Strongly Disagree	Not Sure	Skipped Item	Total Respondents
Novice	8	5	1	0	1	0	15
Traditional	3	0	0	0	0	0	
Alternative	5	5	1	0	1	0	
Percentage	53.33%	33.33%	6.67%	0%	6.67%	0%	

Of the 15 novice respondents, eight respondents (53.33%) strongly agreed, five (33.33%) agreed, one (6.67%) disagreed and one (6.67%) was not sure. Of the eight (53.33%) of the respondents who strongly agreed, three were traditionally certified and five were alternatively certified, of the five (33.33%) that agreed, all five were alternatively certified, the one (6.67%) who disagreed was alternatively certified, and the one (6.67%) that was unsure was alternatively certified.

Table 37 Comments

Respondent Comments	
TC Teacher #2 #29	Yes, my university made sure we studied this topic, analyzing all of the different methods on teaching and keeping students motivated.

Item 18: My program thoroughly prepared me with the knowledge and skills to demonstrate positive impact for my students' learning and development.

Table 38 Response Rate by All Participants

Teacher Type	Strongly Agree	Agree	Disagree	Strongly Disagree	Not Sure	Skipped Item	Total Respondents
Total	20	37	5	2	2	2	68
Respondents	10	17	1	0	0	0	
Traditional	10	20	4	2	2	1	
Alternative	0	0	0	0	0	1	
Skipped item	29.41%	54.41%	7.35%	2.94%	2.94%	2.94%	
Percentage							

For item 18, there was a total of 68 (100%) respondents that participated in this item. Two of the respondents skipped this item and are listed in the far right under “skipped items”.

one of the two respondents that skipped this item was alternatively certified and the other individual that skipped this item also skipped the teacher type and is listed as skipped items and skipped item. Of the 20 (29.41%) respondents who strongly agreed, 10 were traditionally certified and 10 were alternatively certified, of the 37 (54.41%) that agreed, 17 were traditionally certified and 20 were alternatively certified, of the five (7.35%) who disagreed, one was traditionally certified and four were alternatively certified, of the two (2.94%) respondents that strongly disagreed, two were alternatively certified, and two (2.94%) of the respondents that responded that they were unsure, both were alternatively certified. Of the two (2.94%) respondents that skipped this item, one was alternatively certified, and one also skipped the teacher type and as is listed as skipped item.

Table 39 Response Rate by Novice Special Education Teacher Participants

Teacher Type	Strongly Agree	Agree	Disagree	Strongly Disagree	Not Sure	Skipped Item	Total Respondents
Novice	6	7	0	0	2	0	15
Traditional	3	0	0	0	0	0	
Alternative	3	7	0	0	2	0	
Percentage	40%	46.67%	0%	0%	13.33%	0%	

Of the 15 novice respondents, six respondents (40%) strongly agreed, seven (46.67%) agreed, and two (13.33%) were not sure. Of the six (40%) of the respondents who strongly agreed, three were traditionally certified and three were alternatively certified, of the seven (46.67%) that agreed, all seven were alternatively certified, of the two (13.33%) who were unsure, both were alternatively certified. There were no open-ended comments offered for Item 18.

Item 19: My program thoroughly prepared me to teach effectively.

Table 40 Response Rate by All Participants

Teacher Type	Strongly Agree	Agree	Disagree	Strongly Disagree	Not Sure	Skipped Item	Total Respondents
Total	16	32	12	3	3	2	68
Respondents	7	17	3	0	1	0	
Traditional	9	15	9	3	2	1	
Alternative	0	0	0	0	0	1	
Skipped item Percentage	23.53%	47.06%	17.65%	4.41%	4.41%	2.94%	

For item 19, there was a total of 66 (97.06%) respondents that participated in this item. Two of the respondents skipped this item and are listed in the far right under “skipped items”. One of the two respondents that skipped this item was alternatively certified and the other individual that skipped this item also skipped the teacher type and is listed as skipped items and skipped item. Of the 16 (23.53%) respondents who strongly agreed, seven were traditionally certified and nine were alternatively certified, of the 32 (47.06%) that agreed, 17 were traditionally certified and 15 were alternatively certified, of the 12 (17.65%) who disagreed, three were traditionally certified and nine were alternatively certified, of the three (4.41%) respondents that strongly disagreed, all three were alternatively certified, three (4.41%) of the respondents that responded that they were unsure, one was traditionally certified and two were alternatively certified. Of the two (2.94%) respondents that skipped this item, one was alternatively certified and one also skipped the teacher type and as is listed as skipped item.

Table 41 Response Rate by Novice Special Education Teacher Participants

Teacher Type	Strongly Agree	Agree	Disagree	Strongly Disagree	Not Sure	Skipped Item	Total Respondents
Novice	5	9	1	0	0	0	15
Traditional	1	1	1	0	0	0	
Alternative	4	8	0	0	0	0	
Percentage	33.33%	60%	6.67%	0%	0%	0%	

Of the 15 novice respondents, five respondents (33.33%) strongly agreed, nine (60%) agreed, and one (6.67%) disagreed. Of the five (40%) respondents who strongly agreed, one was traditionally certified and four were alternatively certified, of the nine (80%) that agreed, one was traditionally certified and eight were alternatively certified, and the one (6.67%) who disagreed was alternatively certified.

Table 42 Comments

Respondent Comments
AC Teacher #2 I was taught to teach the core subjects effectively, not special education. #2

Item 20: Overall, my preparation was relevant to the responsibilities I confront on the job, and that the preparation was effective.

Table 43 Response Rate by All Participants

Teacher Type	Strongly Agree	Agree	Disagree	Strongly Disagree	Not Sure	Skipped Item	Total Respondents
Total	18	31	14	2	1	2	68
Respondents	9	14	4	1	0	0	
Traditional	9	17	10	1	1	1	
Alternative	0	0	0	0	0	1	
Skipped item Percentage	50%	45.59%	20.59%	2.94%	1.47%	2.94%	

For item 20, there was a total of 66 (97.06%) respondents that participated in this item. Two of the respondents skipped this item and are listed in the far right under “skipped items”. One of the two respondents that skipped this item was AC and the other individual that skipped this item also skipped the teacher type and is listed as skipped items and skipped item. Of the 18 (50%) respondents who strongly agreed, nine were traditionally certified and nine were alternatively certified, of the 31 (45.59%) that agreed, 14 were traditionally certified and 17 were alternatively certified, of the 14 (20.59%) who disagreed, four were traditionally certified and 10 were alternatively certified, of the two (2.94%) respondents that strongly disagreed, one was

traditionally certified and one was alternatively certified, the one (1.47%) respondent responded that they were unsure was alternatively certified. Of the two (2.94%) respondents that skipped this item, one was alternatively certified, and one also skipped the teacher type and as is listed as skipped item.

Table 44 Response Rate by Novice Special Education Teacher Participants

Teacher Type	Strongly Agree	Agree	Disagree	Strongly Disagree	Not Sure	Skipped Item	Total Respondents
Novice	3	10	2	0	0	0	15
Traditional	0	2	1	0	0	0	
Alternative	3	8	1	0	0	0	
Percentage	20%	66.67%	13.33%	0%	0%	0%	

Of the 15 novice respondents, three respondents (20%) strongly agreed, 10 (66.67%) agreed, two (13.33%) disagreed. Of the three (20%) of the respondents who strongly agreed, all three were alternatively certified, of the 10 (66.67%) that agreed, two were traditionally certified and eight were alternatively certified, and of the two (13.33%) who disagreed, one was traditionally certified and one was alternatively certified.

Table 45 Comments

Respondent Comments	
AC Teacher #22	I prepared myself through on the job training as a teacher assistant plus I started taking education classes.
AC Teacher #2	Yes, the basic things I learned helped me get by. More campus support and additional trainings would have helped.

Items 21-30: Council for Exceptional Students

The Council for Exceptional Children (CEC) is a “professional association of educators dedicated to advancing the success of children with exceptionalities” (CEC, Mission). The CEC has “recognized the critical role of standards in defining special education as a profession (CEC, CEC Professional Standards). The CEC has developed initial and advanced standards for special education professionals’ preparation at all levels. The standards are developed through a

collaborative process to ensure they are research-based, current, and fully address the knowledge and skills special educators must master (CEC, 2015).

Item 21: My program thoroughly prepared me to understand how exceptionalities may interact with development and learning and use this knowledge to provide meaningful and challenging learning experiences for my students.

Table 46 Response Rate by All Participants

Teacher Type	Strongly Agree	Agree	Disagree	Strongly Disagree	Not Sure	Skipped Item	Total Respondents
Total	15	31	18	1	1	2	68
Respondents	8	15	5	0	0	0	
Traditional	7	16	13	1	1	1	
Alternative	0	0	0	0	0	1	
Skipped item Percentage	22.06%	45.59%	26.47%	1.47%	1.47	2.94%	

For item 21, there was a total of 66 (97.06%) respondents that participated in this item. Two of the respondents skipped this item and are listed in the far right under “skipped items”. One of the two respondents that skipped this item was alternatively certified and the other individual that skipped this item also skipped the teacher type and is listed as skipped items and skipped item. Of the 15 (22.06%) respondents who strongly agreed, eight were traditionally certified and seven were alternatively certified, of the 31 (45.59%) that agreed, 15 were traditionally certified and 16 were alternatively certified, of the 18 (26.47%) who disagreed, five were traditionally certified and 14 were alternatively certified, of the one (1.47%) respondent that strongly disagreed was alternatively certified, and one (1.47%) of the respondent that responded that they were unsure was alternatively certified. Of the two (2.94%) respondents that skipped this item, one was alternatively certified, and one also skipped the teacher type and as is listed as skipped item.

Table 47 Response Rate by Novice Special Education Teacher Participants

Teacher Type	Strongly Agree	Agree	Disagree	Strongly Disagree	Not Sure	Skipped Item	Total Respondents
Novice	4	9	2	0	0	0	15
Traditional	1	0	2	0	0	0	
Alternative	3	9	0	0	0	0	
Percentage	26.67%	60%	13.37%	0%	0%	0%	

Of the 15 novice respondents, four respondents (26.67%) strongly agreed, nine (60%) agreed, and two (13.33%) disagreed. Of the four (26.67%) of the respondents who strongly agreed, one was traditionally certified and three were alternatively certified, of the nine (60%) that agreed, all nine were alternatively certified, and the two (13.33%) who disagreed were traditionally certified.

Table 48 Comments

Respondent Comments	
TC Teacher #2	Yes, we studied the different developments and the impact of learning.
#29	However, I felt this course could have been stronger.

Item 22: My program thoroughly prepared me to create safe, inclusive, culturally responsive learning environments so that my students with exceptionalities become active and effective learners and develop emotional well-being, positive social interactions, and self-determination.

Table 49 Response Rate by All Participants

Teacher Type	Strongly Agree	Agree	Disagree	Strongly Disagree	Not Sure	Skipped Item	Total Respondents
Total	20	30	13	1	2	2	68
Respondents	9	13	6	0	0	0	
Traditional	11	17	7	1	2	1	
Alternative	0	0	0	0	0	1	
Skipped item	29.41%	44.12%	19.12%	1.47%	2.94%	2.94%	

For item 22, there was a total of 66 (97.06%) respondents that participated in this item. Two of the respondents skipped this item and are listed in the far right under “skipped items”. One of the two respondents that skipped this item was alternatively certified and the other

individual that skipped this item also skipped the teacher type and is listed as skipped items and skipped item. Of the 20 (29.41%) respondents who strongly agreed, 9 were traditionally certified and 11 were alternatively certified, of the 30 (44.12%) that agreed, 13 were traditionally certified and 17 were alternatively certified, of the 13 (19.12%) who disagreed, six were traditionally certified and seven were alternatively certified, one (2.94%) respondent strongly disagreed was alternatively certified, and two (11.76%) of the respondents that responded that they were unsure both were alternatively certified. Of the two (2.94%) respondents that skipped this item, one was alternatively certified, and one also skipped the teacher type and as is listed as skipped item.

Table 50 Response Rate by Novice Special Education Teacher Participants

Teacher Type	Strongly Agree	Agree	Disagree	Strongly Disagree	Not Sure	Skipped Item	Total Respondents
Novice	6	5	4	0	0	0	15
Traditional	1	0	2	0	0	0	
Alternative	5	5	2	0	0	0	
Percentage	40%	33.33%	26.67%	0%	0%	0%	

Of the 15 novice respondents, six respondents (40%) strongly agreed, five (33.33%) agreed, and four (26.67%) disagreed. Of the six (40%) of the respondents who strongly agreed, one was traditionally certified and five were alternatively certified, of the five (33.33%) that agreed, all five were alternatively certified, and the four (26.67%) who disagreed, two were traditionally certified and two alternatively certified.

Table 51 Comments

Respondent Comments	
TC Teacher #2 #29	We generally studied this in my graduate program, but I feel I learned about this more in depth once I began teaching, through job reviews and professional developments.
AC Teacher #2 #2	The program didn't teach anything about social, emotional or cultural awareness.

Table 54

Item 23: My program thoroughly prepared me to use knowledge of general and specialized curricula to individualize learning for my students with exceptionalities.

Table 52 Response Rate by All Participants

Teacher Type	Strongly Agree	Agree	Disagree	Strongly Disagree	Not Sure	Skipped Item	Total Respondents
Total	14	29	19	3	1	2	68
Respondents	8	11	8	1	0	0	
Traditional	6	18	11	2	1	1	
Alternative	0	0	0	0	0	1	
Skipped item Percentage	20.59%	42.65%	27.94%	4.41%	1.47%	2.94%	

For item 23, there was a total of 66 (97.06%) respondents that participated in this item.

Two of the respondents skipped this item and are listed in the far right under “skipped items”.

One of the two respondents that skipped this item was alternatively certified and the other individual that skipped this item also skipped the teacher type and is listed as skipped items and skipped item. Of the 14 (20.59%) respondents who strongly agreed, eight were traditionally certified and six were alternatively certified, of the 29 (42.65%) that agreed, 11 were traditionally certified and 18 were alternatively certified, of the 19 (27.94%) who disagreed, eight were traditionally certified and 11 were alternatively certified, of the three (2.94%) respondents that strongly disagreed, one was traditionally certified and two were alternatively certified, and one (1.47%) respondent that responded that they were unsure, was alternatively

certified. Of the two (2.94%) respondents that skipped this item, one was alternatively certified, and one also skipped the teacher type and as is listed as skipped item.

Table 53 Response Rate by Novice Special Education Teacher Participants

Teacher Type	Strongly Agree	Agree	Disagree	Strongly Disagree	Not Sure	Skipped Item	Total Respondents
Novice	5	8	2	0	0	0	15
Traditional	1	1	1	0	0	0	
Alternative	4	7	1	0	0	0	
Percentage	33.33%	53.33%	13.33%	0%	0%	0%	

Of the 15 novice respondents, five respondents (33.33%) strongly agreed, eight (53.33%) agreed, and two (13.33%) disagreed. Of the five (40%) of the respondents who strongly agreed, one was traditionally certified and four were alternatively certified, of the eight (53.33%) that agreed, one was traditionally certified and seven were alternatively certified, and the two (13.33%) who disagreed, one was traditionally certified and one was alternatively certified.

Table 54 Comments

Respondent Comments	
TC Teacher #2 #29	Yes, we had a couple of courses with amazing professors that did covered these topics.
AC Teacher #2 #2	The program focused on core subjects and the "normal" student. It didn't go into detail about struggling students or students with disabilities.

Item 24: My program thoroughly prepared me to use multiple methods of assessment and data sources in making educational decisions.

Table 55 Response Rate by All Participants

Teacher Type	Strongly Agree	Agree	Disagree	Strongly Disagree	Not Sure	Skipped Item	Total Respondents
Total Respondents	12	31	19	3	1	2	68
Traditional	5	14	8	1	0	0	
Alternative	7	17	11	2	1	1	
Skipped item	0	0	0	0	0	1	
Percentage	17.65%	45.59%	27.94%	4.41%	1.47%	2.94%	

For item 24, there was a total of 66 (97.06%) respondents that participated in this item. Two of the respondents skipped this item and are listed in the far right under “skipped items”. One of the two respondents that skipped this item was alternatively certified and the other individual that skipped this item also skipped the teacher type and is listed as skipped items and

skipped item. Of the 12 (17.65%) respondents who strongly agreed, five were traditionally certified and seven were alternatively certified, of the 31 (45.59%) that agreed, 14 were traditionally certified and 17 were alternatively certified, of the 19 (27.94%) who disagreed, eight were traditionally certified and 11 were alternatively certified, of the three (2.94%) respondents that strongly disagreed, one was traditionally certified and two were alternatively certified, and one (1.47%) respondent that responded that they were unsure, was alternatively certified. Of the two (2.94%) respondents that skipped this item, one was alternatively certified and one also skipped the teacher type and as is listed as skipped item.

Table 56 Response Rate by Novice Special Education Teacher Participants

Teacher Type	Strongly Agree	Agree	Disagree	Strongly Disagree	Not Sure	Skipped Item	Total Respondents
Novice	5	8	2	0	0	0	15
Traditional	1	2	0	0	0	0	
Alternative	4	6	2	0	0	0	
Percentage	33.33%	53.33%	13.33%	0%	0%	0%	

Of the 15 novice respondents, five respondents (33.33%) strongly agreed, eight (53.33%) agreed, and two (13.33%) disagreed. Of the five (33.33%) of the respondents who strongly agreed, one was traditionally certified and four were alternatively certified, of the eight (53.33%) that agreed, two were traditionally certified and six were alternatively certified, and of the two (13.33%) who disagreed, both were alternatively certified.

Table 57 Comments

Respondent Comments	
TC Teacher #2 #29	They taught us more about psychological and educational testing available, which is mostly used by New York's CSE (Center for Special Education). They help decide of a child needs to be classified with a disability.
AC Teacher #2 #2	Only regular formal and informal assessments. Example quizzes, unit test, final, etc.

Item 25: My program thoroughly prepared me to select, adapt, and use a repertoire of evidence-based instructional strategies to advance learning of individuals with exceptionalities.

Table 58 Response Rate by All Participants

Teacher Type	Strongly Agree	Agree	Disagree	Strongly Disagree	Not Sure	Skipped Item	Total Respondents
Total	13	29	19	2	2	3	68
Respondents	7	14	7	0	0	0	
Traditional	6	15	12	2	2	2	
Alternative	0	0	0	0	0	1	
Skipped item Percentage	19.12%	42.65%	27.94%	2.94%	2.94%	4.41%	

For item 25, there was a total of 66 (97.06%) respondents that participated in this item. Three of the respondents skipped this item and are listed in the far right under “skipped items”. Two of the respondents that skipped this item were alternatively certified and the third individual that skipped this item also skipped the teacher type and is listed as skipped items and skipped item. Of the 13 (19.12%) respondents who strongly agreed, seven were traditionally certified and six were alternatively certified, of the 29 (42.65%) that agreed, 14 were traditionally certified and 15 were alternatively certified, of the 19 (27.94%) who disagreed, seven were traditionally certified and 11 were alternatively certified, of the two (2.94%) respondents that strongly disagreed, both were alternatively certified, and two (2.94%) respondents that responded they were unsure, was alternatively certified. Of the three (2.94%) respondents that skipped this item, two were alternatively certified and one also skipped the teacher type and as is listed as skipped item.

Table 59 Response Rate by Novice Special Education Teacher Participants

Teacher Type	Strongly Agree	Agree	Disagree	Strongly Disagree	Not Sure	Skipped Item	Total Respondents
Novice	3	9	3	0	0	0	15
Traditional	0	2	1	0	0	0	

Alternative	3	7	2	0	0	0
Percentage	20%	60%	20%	0%	0%	0%

Of the 15 novice respondents, three respondents (20%) strongly agreed, nine (60%) agreed, and three (20%) disagreed. Of the three (20%) of the respondents who strongly agreed, all three were alternatively certified, of the nine (60%) that agreed, two were traditionally certified and seven were alternatively certified, and of the three (20%) who disagreed, one was traditionally certified and two were alternatively certified.

Table 60 Comments

Respondent Comments	
TC Teacher #2 #29	We generally learned about this. Again, felt I learned a lot more once I started teaching and receiving Professional Development.

Item 26: My program thoroughly prepared me to use foundational knowledge of the field to inform special education practice, to engage in lifelong learning, and to advance the profession.

Table 61 Response Rate by All Participants

Teacher Type	Strongly Agree	Agree	Disagree	Strongly Disagree	Not Sure	Skipped Item	Total Respondents
Total	15	27	20	1	2	3	68
Respondents	8	10	9	0	1	0	
Traditional	7	17	11	1	1	2	
Alternative	0	0	0	0	0	1	
Skipped item	22.06%	39.71%	29.41%	1.47%	2.94%	4.41%	

For item 26, there was a total of 65 (95.59%) respondents that participated in this item. Three of the respondents skipped this item and are listed in the far right under “skipped items”. Two of the respondents that skipped this item was traditionally certified and the other individual that skipped this item also skipped the teacher type and is listed as skipped items and skipped item. Of the 15 (22.06%) respondents who strongly agreed, eight were traditionally certified and seven were alternatively certified, of the 27 (39.71%) that agreed, 10 were traditionally certified

and 17 were alternatively certified, of the 20 (29.41%) who disagreed, nine were traditionally certified and 11 were alternatively certified, one of the (1.47%) respondents that strongly disagreed, was alternatively certified, and 2 (2.94%) respondents that responded that they were unsure, one was traditionally certified and one was alternatively certified. Of the 3 (4.41%) respondents that skipped this item, two were alternatively certified and one also skipped the teacher type and as is listed as skipped item.

Table 62 Response Rate by Novice Special Education Teacher Participants

Teacher Type	Strongly Agree	Agree	Disagree	Strongly Disagree	Not Sure	Skipped Item	Total Respondents
Novice	5	7	3	0	0	0	15
Traditional	1	1	1	0	0	0	
Alternative	4	6	2	0	0	0	
Percentage	33.33%	46.67%	20%	0%	0%	0%	

Of the 15 novice respondents, five respondents (33.33%) strongly agreed, seven (46.67%) agreed, and three (20%) disagreed. Of the five (33.33%) of the respondents who strongly agreed, one was traditionally certified and four were alternatively certified, of the seven (46.67%) that agreed, one was traditionally certified and six were alternatively certified, and of the three (20%) who disagreed, one was traditionally certified and two were alternatively certified. There were no open-ended comments for Item 26.

Item 27: My program thoroughly prepared me to use professional ethical principles to inform special education practice, to engage in lifelong learning, and to advance the profession.

Table 63 Response Rate by All Participants

Teacher Type	Strongly Agree	Agree	Disagree	Strongly Disagree	Not Sure	Skipped Item	Total Respondents
Total	13	28	20	2	2	3	68
Respondents	6	12	9	0	1	0	
Traditional	7	16	11	2	1	2	
Alternative	0	0	0	0	0	1	
Skipped item	19.12%	41.18%	29.41%	2.94%	2.94%	4.41%	
Percentage							

For item 27, there was a total of 65 (95.59%) respondents that participated in this item. Three of the respondents skipped this item and are listed in the far right under “skipped items”. Both respondents that skipped this item were alternatively certified and the other individual that skipped this item also skipped the teacher type and is listed as skipped items and skipped item. Of the 13 (19.12%) respondents who strongly agreed, six were traditionally certified and seven were alternatively certified, of the 28 (41.18%) that agreed, 12 were traditionally certified and 16 were alternatively certified, of the 20 (29.41%) who disagreed, nine were traditionally certified and 11 were alternatively certified, of the two (2.94%) respondents that strongly disagreed, both were alternatively certified, two (2.94%) of the respondent that responded that they were unsure, one was traditionally certified and one was alternatively certified. Of the two (2.94%) respondents that skipped this item, one was alternatively certified, and one also skipped the teacher type and as is listed as skipped item.

Table 64 Response Rate by Novice Special Education Teacher Participants

Teacher Type	Strongly Agree	Agree	Disagree	Strongly Disagree	Not Sure	Skipped Item	Total Respondents
Novice	5	7	3	0	0	0	15
Traditional	1	1	1	0	0	0	
Alternative	4	6	2	0	0	0	
Percentage	33.33%	46.67%	30%	0%	0%	0%	

Of the 15 novice respondents, five respondents (33.33%) strongly agreed, seven (46.67%) agreed, and three (20%) disagreed. Of the five (33.33%) of the respondents who strongly agreed, one was traditionally certified and four were alternatively certified, of the seven (46.67%) that agreed, one was traditionally certified and six alternatively certified, of the three (30%) who disagreed, one was traditionally certified and two were alternatively certified. There were no open-ended comments for Item 27.

Item 28: My program thoroughly prepared me to collaborate with families in culturally responsive ways to address the needs of my students with exceptionalities across a range of learning experiences.

Table 65 Response Rate by All Participants

Teacher Type	Strongly Agree	Agree	Disagree	Strongly Disagree	Not Sure	Skipped Item	Total Respondents
Total	10	28	22	2	3	3	68
Respondents	5	12	10	0	1	0	
Traditional	5	16	12	2	2	2	
Alternative	0	0	0	0	0	1	
Skipped item Percentage	14.71%	41.18%	32.35%	2.94%	4.41%	4.41%	

For item 28, there was a total of 65 (95.59%) respondents that participated in this item. Three respondents skipped this item and are listed in the far right under “skipped items”. Two of the respondents that skipped this item were alternatively certified and the other individual that skipped this item also skipped the teacher type and is listed as skipped items and skipped item. Of the 10 (14.71%) respondents who strongly agreed, five were traditionally certified and five were alternatively certified, of the 28 (41.18%) that agreed, 12 were traditionally certified and 16 were alternatively certified, of the 22 (32.35%) who disagreed, 10 were traditionally certified and 12 were alternatively certified, of the two (2.94%) respondents that strongly disagreed, both were alternatively certified, and three (4.41%) respondents that responded that they were unsure, one was traditionally certified and one alternatively certified. Of the three (4.41%) respondents that skipped this item, two were alternatively certified and one also skipped the teacher type and as is listed as skipped item.

Table 66 Response Rate by Novice Special Education Teacher Participants

Teacher Type	Strongly Agree	Agree	Disagree	Strongly Disagree	Not Sure	Skipped Item	Total Respondents
Novice	4	7	4	0	0	0	15
Traditional	1	2	0	0	0	0	
Alternative	3	5	4	0	0	0	
Percentage	26.67%	46.67%	26.67%	0%	%	0%	

Of the 15 novice respondents, four respondents (26.67%) strongly agreed, seven (46.67%) agreed, and four (26.67%) disagreed. Of the four (26.67%) of the respondents who strongly agreed, one was traditionally certified and three were alternatively certified, of the seven (46.67%) that agreed, two were traditionally certified and five were alternatively certified, of the four (26.67%) who disagreed, all four were alternatively certified. There were no open-ended comments for Item 28.

Item 29: My program thoroughly prepared me to use professional ethical principles to inform special education practice, to engage in lifelong learning, and to advance the profession.

Table 67 Response Rate by All Participants

Teacher Type	Strongly Agree	Agree	Disagree	Strongly Disagree	Not Sure	Skipped Item	Total Respondents
Total	13	28	20	2	2	3	68
Respondents	6	12	9	0	1	0	
Traditional	7	16	11	2	1	2	
Alternative	0	0	0	0	0	1	
Skipped item	19.12%	41.18%	29.41%	2.94%	2.94%	2.94%	
Percentage							

For item 29, there was a total of 6 (100%) respondents that participated in this item. Three of the respondents skipped this item and are listed in the far right under “skipped items”. Both respondents that skipped this item were alternatively certified and the other individual that skipped this item also skipped the teacher type and is listed as skipped items and skipped item. Of the 12 (17.65%) respondents who strongly agreed, four were traditionally certified and eight were alternatively certified, of the 22 (39.71%) that agreed, nine were traditionally certified and

13 were alternatively certified, of the 22 (39.71%) who disagreed, 10 were traditionally certified and 12 were alternatively certified, of the two (2.94%) respondents that strongly disagreed, one was traditionally certified and one was alternatively certified, and eight (11.76%) of the respondents that responded that they were unsure, four were traditionally certified and four were alternatively certified. Of the two (2.94%) respondents that skipped this item, one was alternative certified and one also skipped the teacher type and as is listed as skipped item.

Table 68 Response Rate by Novice Special Education Teacher Participants

Teacher Type	Strongly Agree	Agree	Disagree	Strongly Disagree	Not Sure	Skipped Item	Total Respondents
Novice	5	8	2	0	0	0	15
Traditional	1	2	0	0	0	0	
Alternative	4	6	2	0	0	0	
Percentage	33.33%	53.33%	13.33%	0%	0%	0%	

Of the 15 novice respondents, five respondents (33.33%) strongly agreed, eight (53.33%) agreed, and two (13.33%) disagreed. Of the five (33.33%) of the respondents who strongly agreed, one was traditionally certified and four were alternatively certified, of the eight (53.33%) that agreed, two were traditionally certified and six were alternatively certified, of the two (13.33%) who disagreed, both were alternatively certified.

Table 69 Comments

Respondent Comments	
AC Teacher #32	Yes, we would have a lot of Professional Development Classes throughout the year, which allowed me to be a lifelong learner and advance the Special Ed. Profession.

Item 30: My program thoroughly prepared me to collaborate with other educators in a culturally responsive way to address the needs of my students with exceptionalities across a range of learning experiences.

Table 70 Response Rate by All Participants

Teacher Type	Strongly Agree	Agree	Disagree	Strongly Disagree	Not Sure	Skipped Item	Total Respondents
Total	13	34	16	1	1	3	68
Respondents	6	15	6	0	1	0	
Traditional	7	19	10	1	0	2	
Alternative	0	0	0	0	0	1	
Skipped item Percentage	19.12%	50%	23.53%	1.47%	1.47%	4.41%	

For item 30, there was a total of 65 (95.59%) respondents that participated in this item. Three of the respondents skipped this item and are listed in the far right under “skipped items”. Two respondents that skipped this item were alternatively certified and the other individual that skipped this item also skipped the teacher type and is listed as skipped items and skipped item. Of the 13 (19.12%) respondents who strongly agreed, six were traditionally certified and seven were alternatively certified, of the 34 (50%) that agreed, 15 were traditionally certified and 19 were alternatively certified, of the 16 (23.53%) who disagreed, six were traditionally certified and 10 were alternatively certified, one (1.47%) respondent who strongly disagreed was alternatively certified, one (1.47%) respondent that responded that they were unsure was traditionally certified. Of the three (4.41%) respondents that skipped this item, two were alternatively certified and one also skipped the teacher type and as is listed as skipped item.

Table 71 Response Rate by Novice Special Education Teacher Participants

Teacher Type	Strongly Agree	Agree	Disagree	Strongly Disagree	Not Sure	Skipped Item	Total Respondents
Novice	5	7	3	0	0	0	15
Traditional	1	2	0	0	0	0	
Alternative	4	5	3	0	0	0	
Percentage	33.33%	46.67%	20%	0%	0%	0%	

Of the 15 novice respondents, five respondents (33.33%) strongly agreed, seven (46.67%) agreed, and three (20%) disagreed. Of the five (33.33%) of the respondents who strongly agreed, one was traditionally certified and four were alternatively certified, of the seven (46.67%) that agreed, two were traditionally certified and five were alternatively certified, of the three (20%) who disagreed, all three were alternatively certified.

Table 72 Comments

Respondent Comments	
TC Teacher #30	PD has improved overtime but still needs improvement; having choice sessions helps.

Items 31-42: National Board for Professional Teaching Standards

The National Board for Professional Teaching Standards, which was established in 1987, is an independent non-profit organization working to advance accomplished teaching for all students. The focus of this organization is to maintain high and high rigorous standards of what teachers should know and be able to do, provide a national voluntary system for certifying teachers to meet these standards, and advocate and capitalize on the expertise of national board-certified teachers (NBPTS, Mission).

Item 31: My program thoroughly prepared me to use knowledge of human development and learning to help develop my students’ knowledge, attitudes, skills, interests, aspirations, and values.

Table 73 Response Rate by All Participants

Teacher Type	Strongly Agree	Agree	Disagree	Strongly Disagree	Not Sure	Skipped Item	Total Respondents
Total	16	37	11	1	0	3	68
Respondents	9	17	2	0	0	0	
Traditional	7	20	9	1	0	2	
Alternative	0	0	0	0	0	1	
Skipped item Percentage	23.53%	54.41%	16.18%	1.47%	0%	4.41%	

For item 31, there was a total of 65 (95.59%) respondents that participated in this item. Three of the respondents skipped this item and are listed in the far right under “skipped items”. Two respondents that skipped this item were alternatively certified and the other individual that skipped this item also skipped the teacher type and is listed as skipped items and skipped item. Of the 16 (23.53%) respondents who strongly agreed, nine were traditionally certified and seven were alternatively certified, of the 37 (54.41%) that agreed, 17 were traditionally certified and 20

were alternatively certified, of the 11 (16.19%) who disagreed, two were traditionally certified and nine were alternatively certified, the one (1.47%) respondent that strongly disagreed was alternatively certified, 0 (0%) of the respondents stated they unsure. Of the three (4.41%) respondents that skipped this item, two were alternatively certified and one also skipped the teacher type and as is listed as skipped item.

Table 74 Response Rate by Novice Special Education Teacher Participants

Teacher Type	Strongly Agree	Agree	Disagree	Strongly Disagree	Not Sure	Skipped Item	Total Respondents
Novice	6	6	3	0	0	0	15
Traditional	1	2	0	0	0	0	
Alternative	5	4	3	0	0	0	
Percentage	40%	40%	20%	0%	0%	0%	

Of the 15 novice respondents, six respondents (40%) strongly agreed, six (40%) agreed, and three (20%) disagreed. Of the six (40%) of the respondents who strongly agreed, one was traditionally certified and five were alternatively certified, of the six (40%) that agreed, two were traditionally certified and four were alternatively certified, of the three (20%) who disagreed, all three were alternatively certified.

Table 75 Comments

Respondent Comments	
TC Teacher #2 #29	Yes, but this mostly covered by one course and I felt this course was weak.
AC Teacher #2	The program reviewed various child development stages and expectations.

Item 32: My program thoroughly prepared me to use my skills as a careful observer of students to help develop my students' knowledge, attitudes, skills, interests, aspirations, and values.

Table 76 Response Rate by All Participants

Teacher Type	Strongly Agree	Agree	Disagree	Strongly Disagree	Not Sure	Skipped Item	Total Respondents
Total	14	37	12	1	0	4	68
Respondents	7	17	3	0	0	1	

Traditional	7	20	9	1	0	2
Alternative	0	0	0	0	0	1
Skipped item	20.59%	54.41%	17.65%	1.47%	0%	5.88%
Percentage						

For item 32, there was a total of 64 (94.12%) respondents that participated in this item. Four of the respondents skipped this item and are listed in the far right under “skipped items”. One of the respondents that skipped this item was traditionally certified, two were alternatively certified and the other individual that skipped this item also skipped the teacher type and is listed as skipped items and skipped item. Of the 14 (20.59%) respondents who strongly agreed, seven were traditionally certified and seven were alternatively certified, of the 37 (54.41%) that agreed, 17 were traditionally certified and 20 were alternatively certified, of the 12 (17.65%) who disagreed, three were traditionally certified and nine were alternatively certified, one (1.47%) respondent strongly disagreed who was alternatively certified, zero (0%) respondents stated that they were unsure. Of the four (5.88%) respondents that skipped this item, one was traditionally certified, two were alternatively certified and one also skipped the teacher type and as is listed as skipped item.

Table 77 Response Rate by Novice Special Education Teacher Participants

Teacher Type	Strongly Agree	Agree	Disagree	Strongly Disagree	Not Sure	Skipped Item	Total Respondents
Novice	6	6	3	0	0	0	15
Traditional	1	1	1	0	0	0	
Alternative	5	5	2	0	0	0	
Percentage	40%	40%	20%	0%	0%	0%	

Of the 15 novice respondents, six respondents (40%) strongly agreed, six (40%) agreed, and three (20%) disagreed. Of the six (40%) of the respondents who strongly agreed, one was traditionally certified and five were alternatively certified, of the six (40%) that agreed, one was traditionally certified and five were alternatively certified, of the three (20%) who disagreed, one

was traditionally certified and two were alternatively certified. There were no open-ended comments for Item 32.

Item 33: My program thoroughly prepared me to understand how philosophical, historical, and legal foundations of the field inform the development of effective practice.

Table 78 Response Rate by All Participants

Teacher Type	Strongly Agree	Agree	Disagree	Strongly Disagree	Not Sure	Skipped Item	Total Respondents
Total	10	40	11	3	1	3	68
Respondents	5	16	5	2	0	0	
Traditional	5	24	6	1	1	2	
Alternative	0	0	0	0	0	1	
Skipped item Percentage	14.71%	58.82%	16.18%	4.41%	1.47%	4.41%	

For item 33, there was a total of 65 (95.59%) respondents that participated in this item. Three of the respondents skipped this item and are listed in the far right under “skipped items”. Two of the respondents that skipped this item was alternatively certified and the other individual that skipped this item also skipped the teacher type and is listed as skipped items and skipped item. Of the 10 (14.71%) respondents who strongly agreed, five were traditionally certified and five were alternatively certified, of the 40 (58.82%%) that agreed, 16 were traditionally certified and 24 were alternatively certified, of the 11 (16.18 %) who disagreed, five were traditionally certified and six were alternatively certified, of the three (4.41%) respondents that strongly disagreed, two were traditionally certified and one was alternatively certified, one (1.47%) respondent who answered that they were unsure was alternatively certified. Of the three (4.41`%) respondents that skipped this item, two were alternatively certified and one also skipped the teacher type and as is

Table 79 Response Rate by Novice Special Education Teacher Participants

Teacher Type	Strongly Agree	Agree	Disagree	Strongly Disagree	Not Sure	Skipped Item	Total Respondents
Novice	2	10	2	1	0	0	15
Traditional	0	3	0	0	0	0	
Alternative	2	7	2	1	0	0	
Percentage	13.33%	66.67%	13.33%	6.67%	0%	0%	

Of the 15 novice respondents, two respondents (13.33%) strongly agreed, 10 (66.67%) agreed, two (13.33%) disagreed, and one (6.67) disagreed. Of the two (13.33%) of the respondents who strongly agreed, two were alternatively certified, of the two (13.33%) that agreed, two were alternatively certified, and one (6.67%) who disagreed, was alternatively certified. There were no open-ended comments for Item 33.

Item 34: My program thoroughly prepared to create an environment in which equitable treatment, fairness, and respect for diversity are modeled, taught and practiced by all.

Table 80 Response Rate by All Participants

Teacher Type	Strongly Agree	Agree	Disagree	Strongly Disagree	Not Sure	Skipped Item	Total Respondents
Total	17	42	5	1	0	3	68
Respondents	9	17	2	0	0	0	
Traditional	8	25	3	1	0	2	
Alternative	0	0	0	0	0	1	
Skipped item Percentage	25%	61.75%	7.35%	1.47%	0%	4.41%	

For item 34, there was a total of 65 (95.59%) respondents that participated in this item. Three of the respondents skipped this item and are listed in the far right under “skipped items”. Two of the respondents that skipped this item was alternatively certified and the other individual that skipped this item also skipped the teacher type and is listed as skipped items and skipped item. Of the 17 (25%) respondents who strongly agreed, eight were traditionally certified and nine were alternatively certified, of the 42 (61.75%) that agreed, 17 were traditionally certified and 25 were alternatively certified, of the five (7.35%) who disagreed, two were traditionally

certified and three were alternatively certified, one (1.47%) respondent answered that they strongly disagreed was alternatively certified, and 0 (0%) of the respondents answered that they were unsure. Of the three (4.41%) respondents that skipped this item, two were alternatively certified and one also skipped the teacher type and as is listed as skipped item.

Table 81 Response Rate by Novice Special Education Teacher Participants

Teacher Type	Strongly Agree	Agree	Disagree	Strongly Disagree	Not Sure	Skipped Item	Total Respondents
Novice	5	10	0	0	0	0	15
Traditional	1	2	0	0	0	0	
Alternative	4	8	0	0	0	0	
Percentage	33.33%	66.67%	0%	0%	0%	0%	

Of the 15 novice respondents, five respondents (33.33%) strongly agreed and 10 (40%) agreed. Of the five (33.33%) of the respondents who strongly agreed, one was traditionally certified and four were alternatively certified, and of the ten (66.67%) that agreed, two were traditionally certified and eight were alternatively certified. There were no open-ended comments for Item 34.

Item 35: My program thoroughly prepared me to work collaboratively with parents, guardians, and other caregivers to promote understanding of my students and to achieve educational goals.

Table 82 Response Rate by All Participants

Teacher Type	Strongly Agree	Agree	Disagree	Strongly Disagree	Not Sure	Skipped Item	Total Respondents
Total Respondents	14	34	14	3	0	3	68
Traditional	6	15	6	1	0	0	
Alternative	8	19	8	2	0	2	
Skipped item	0	0	0	0	0	1	
Percentage	20.59%	50%	20.59%	4.41%	0%	4.41%	

For item 35, there was a total of 65 (95.59%) respondents that participated in this item. Three of the respondents skipped this item and are listed in the far-right column under “skipped

items”. Two of the respondents that skipped this item was alternatively certified and the other individual that skipped this item also skipped the teacher type and is listed as skipped items and skipped item. Of the 14 (20.59%) respondents who strongly agreed, 6 were traditionally certified and 8 were alternatively certified, of the 34 (50%) that agreed, 15 were traditionally certified and 19 were alternatively certified, of the 14 (20.59%) who disagreed, six were traditionally certified and eight were alternatively certified, of the three (4.41%) respondents that strongly disagreed, one was traditionally certified and two were alternatively certified, and 0 (0%) of the respondents answered that they were unsure. Of the three (4.41%) respondents that skipped this item, two were alternatively certified and one also skipped the teacher type and as is listed as skipped item.

Table 83 Response Rate by Novice Special Education Teacher Participants

Teacher Type	Strongly Agree	Agree	Disagree	Strongly Disagree	Not Sure	Skipped Item	Total Respondents
Novice	5	7	2	1	0	0	15
Traditional	1	1	1	0	0	0	
Alternative	4	6	1	1	0	0	
Percentage	33.33%	46.67%	13.33%	6.67%	0%	0%	

Of the 15 novice respondents, five respondents (33.33%) strongly agreed, seven (46.67%) agreed, two (13.33%) disagreed, and one (6.67%) strongly disagreed. Of the five (33.33%) of the respondents who strongly agreed, one was traditionally certified and four were alternatively certified, of the seven (46.67%) that agreed, one was traditionally certified and six were alternatively certified, of the two (13.33%) who disagreed, one was traditionally certified and one was alternatively certified, and the one (6.67%) that strongly disagreed was alternatively certified. There were no open-ended comments for Item 35.

Item 36: My program thoroughly prepared me to design, select, and use a variety of assessments to obtain accurate, useful, and timely information about student learning and development and to help students reflect on their own progress.

Table 84 Response Rate by All Participants

Teacher Type	Strongly Agree	Agree	Disagree	Strongly Disagree	Not Sure	Skipped Item	Total Respondents
Total	10	30	22	2	1	3	68
Respondents	4	13	9	1	0	0	
Traditional	6	17	13	1	1	2	
Alternative	0	0	0	0	0	1	
Skipped item Percentage	14.71%	44.12%	32.35%	2.94%	1.47%	4.41%	

For item 36, there was a total of 65 (95.59%) respondents that participated in this item. Three of the respondents skipped this item and are listed in the far right under “skipped items”. Two of the respondents that skipped this item was alternatively certified and the other individual that skipped this item also skipped the teacher type and is listed as skipped items and skipped item. Of the 10 (17.65%) respondents who strongly agreed, four were traditionally certified and six were alternatively certified, of the 30 (44.12%) that agreed, 13 were traditionally certified and 17 were alternatively certified, of the 22 (32.35%) who disagreed, nine were traditionally certified and 13 were alternatively certified, of the two (2.94%) respondents that strongly disagreed, one was traditionally certified and one was alternatively certified, and there was one (1.47%) respondent that answered that they were unsure and they were alternatively certified. Of the three (4.41%) respondents that skipped this item, two were alternatively certified and one also skipped the teacher type and as is listed as skipped item.

Table 85 Response Rate by Novice Special Education Teacher Participants

Teacher Type	Strongly Agree	Agree	Disagree	Strongly Disagree	Not Sure	Skipped Item	Total Respondents
Novice	3	6	5	1	0	0	15
Traditional	1	0	2	0	0	0	
Alternative	2	6	3	1	0	0	
Percentage	20%	40%	33.33%	6.67%	0%	0%	

Of the 15 novice respondents, three respondents (20%) strongly agreed, six (40%) agreed, five (33.33%) disagreed, and one (6.67%) strongly disagreed. Of the three (20%) of the

respondents who strongly agreed, one was traditionally certified and two were alternatively certified, of the six (40%) that agreed, all six were alternatively certified, of the five (33.33%) who disagreed, two were traditionally certified and three were alternatively certified, and the one (6.67%) that strongly disagreed was alternatively certified.

Table 86 Comments

Respondent Comments	
TC Teacher #2 #29	No, we didn't cover on how to get the child involved to monitor their own progress. However, my current school does ensure that we practice this method with the students.

Item 37: My program thoroughly prepared me to develop and foster communication skills that enable students to access, comprehend, and apply information; acquire knowledge, and develop and maintain interpersonal relationships.

Table 87 Response Rate by All Participants

Teacher Type	Strongly Agree	Agree	Disagree	Strongly Disagree	Not Sure	Skipped Item	Total Respondents
Total	16	32	12	3	2	3	68
Respondents	9	14	3	1	1	0	
Traditional	7	18	9	2	1	2	
Alternative	0	0	0	0	0	1	
Skipped item Percentage	23.53%	47.06%	17.75%	4.41%	2.94%	4.41%	

For item 37, there was a total of 65 (95.59%) respondents that participated in this item. Three of the respondents skipped this item and are listed in the far-right column under “skipped items”. Two of the respondents that skipped this item was alternatively certified and the other individual that skipped this item also skipped the teacher type and is listed as skipped items and skipped item. Of the 16 (23.53%) respondents who strongly agreed, nine were traditionally certified and seven were alternatively certified, of the 32 (47.06%) that agreed, 14 were traditionally certified and 18 were alternatively certified, of the 12 (17.75%) who disagreed, three were traditionally certified and nine were alternatively certified, of the three (4.41%)

respondents that strongly disagreed, one was traditionally certified and two were alternatively certified, and two (2.94%) of the respondents that responded that they were unsure, one was traditionally certified and one was alternatively certified. Of the three (4.41%) respondents that skipped this item, two were alternatively certified and one also skipped the teacher type and as is listed as skipped item.

Table 88 Response Rate by Novice Special Education Teacher Participants

Teacher Type	Strongly Agree	Agree	Disagree	Strongly Disagree	Not Sure	Skipped Item	Total Respondents
Novice	6	8	1	0	0	0	15
Traditional	1	1	1	0	0	0	
Alternative	5	7	0	0	0	0	
Percentage	40%	53.33%	6.67%	0%	0%	0%	

Of the 15 novice respondents, six respondents (40%) strongly agreed, eight (53.33%) agreed, and one (6.67%) disagreed. Of the six (40%) of the respondents who strongly agreed, one was traditionally certified and five were alternatively certified, of the eight (53.33%) that agreed, one was traditionally certified and seven were alternatively certified, and one (6.67%) who disagreed was alternatively certified. There were no open-ended comments for Item 37.

Item 38: My program thoroughly prepared me to cultivate a sense of efficacy in my students as they develop each student's personal responsibility and independence, civic and social responsibility, respect for diverse individuals and groups, and ability to work constructively and collaboratively with others.

Table 89 Response Rate by All Participants

Teacher Type	Strongly Agree	Agree	Disagree	Strongly Disagree	Not Sure	Skipped Item	Total Respondents
Total	13	34	14	3	1	3	68
Respondents	6	18	3	1	0	0	
Traditional	7	16	11	2	1	2	
Alternative	0	0	0	0	0	1	
Skipped item	19.12%	50%	20.59%	4.41%	1.47%	4.41%	
Percentage							

For item 38, there was a total of 65 (95.59%) respondents that participated in this item. Three of the respondents skipped this item and are listed in the far right under “skipped items”. Two of the respondents that skipped this item was alternatively certified and the other individual that skipped this item also skipped the teacher type and is listed as skipped items and skipped item. Of the 13 (19.12%) respondents who strongly agreed, six were traditionally certified and seven were alternatively certified, of the 34 (50%) that agreed, 18 were traditionally certified and 16 were alternatively certified, of the 14 (20.59%) who disagreed, three were traditionally certified and 11 were alternatively certified, of the three (4.41%) respondents that strongly disagreed, one was traditionally certified and two were alternatively certified, and there was one (1.47%) respondent that answered that they were unsure, who was alternatively certified. Of the three (4.41%) respondents that skipped this item, two were alternatively certified and one also skipped the teacher type and as is listed as skipped item.

Table 90 Response Rate by Novice Special Education Teacher Participants

Teacher Type	Strongly Agree	Agree	Disagree	Strongly Disagree	Not Sure	Skipped Item	Total Respondents
Novice	5	7	2	1	0	0	15
Traditional	0	2	1	0	0	0	
Alternative	5	5	1	1	0	0	
Percentage	33.33%	46.67%	13.33%	6.67%	0%	0%	

Of the 15 novice respondents, five respondents (33.33%) strongly agreed, seven (46.67%) agreed, two (13.33%) disagreed, and one (6.67%) strongly disagreed. Of the five (33.33%) of the respondents who strongly agreed, all five were alternatively certified, of the seven (33.33%) that agreed, two were traditionally certified and five were alternatively certified, of the two (13.33%) who disagreed one was traditionally certified and one was alternatively certified, and the one (6.67%) that strongly disagreed was alternatively certified. There were no open-ended comments for Item 38.

Item 39: My program thoroughly prepared me to command a core body of knowledge of the disciplines and of a specialized curriculum for students with exceptional needs.

Table 91 Response Rate by All Participants

Teacher Type	Strongly Agree	Agree	Disagree	Strongly Disagree	Not Sure	Skipped Item	Total Respondents
Total	15	29	14	3	4	3	68
Respondents	6	14	5	0	3	0	
Traditional	9	15	9	3	1	2	
Alternative	0	0	0	0	0	1	
Skipped item Percentage	22.06%	42.65%	20.59%	4.41%	5.88%	4.41%	

For item 39, there was a total of 65 (95.59%) respondents that participated in this item. Three of the respondents skipped this item and are listed in the far right under “skipped items”. Two of the respondents that skipped this item was alternatively certified and the other individual that skipped this item also skipped the teacher type and is listed as skipped items and skipped item. Of the 15 (22.06%) respondents who strongly agreed, six were traditionally certified and nine were alternatively certified, of the 29 (42.65%) that agreed, 14 were traditionally certified and 15 were alternatively certified, of the 14 (20.59%) who disagreed, five were traditionally certified and nine were alternatively certified, of the three (4.41%) respondents that strongly disagreed all three were alternatively certified, and four (5.88%) of the respondents that responded that they were unsure, three were traditionally certified and one was alternatively certified. Of the three (4.41%) respondents that skipped this item, two were alternatively certified and one also skipped the teacher type and as is listed as skipped item.

Table 92 Response Rate by Novice Special Education Teacher Participants

Teacher Type	Strongly Agree	Agree	Disagree	Strongly Disagree	Not Sure	Skipped Item	Total Respondents
Novice	5	9	1	0	0	0	15
Traditional	1	2	0	0	0	0	
Alternative	4	7	1	0	0	0	
Percentage	33.33%	60%	6.67%	0%	0%	0%	

Of the 15 novice respondents, five respondents (33.33%) strongly agreed, nine (60%) agreed, and one (6.67%) disagreed. Of the five (33.33%) of the respondents who strongly agreed, one was traditionally certified and four were alternatively certified, of the nine (60%) that agreed, two were traditionally certified and seven were alternatively certified, and the one (6.67%) who disagreed was alternatively certified. There were no open-ended comments for Item 39.

Item 40: My program thoroughly prepared me to command a core body of knowledge of the disciplines and of a specialized curriculum for students with exceptional needs. They draw on this knowledge to establish curricular goals, design instruction, facilitate student learning, and assess student progress.

Table 93 Response Rate by All Participants

Teacher Type	Strongly Agree	Agree	Disagree	Strongly Disagree	Not Sure	Skipped Item	Total Respondents
Total	12	27	20	3	3	3	68
Respondents	5	14	7	0	2	0	
Traditional	12	13	13	3	1	2	
Alternative	0	0	0	0	0	1	
Skipped item Percentage	17.65%	39.71%	29.41%	4.41%	4.41%	4.41%	

For item 40, there was a total of 65 (95.59%) respondents that participated in this item and three (4.41%) of the respondents skipped this item and are listed in the far-right column under “skipped items”. Two of the respondents that skipped this item was alternatively certified and the other individual that skipped this item also skipped the teacher type and is listed as skipped items and skipped item. Of the 12 (17.65%) respondents who strongly agreed, five were traditionally certified and 12 were alternatively certified, of the 27 (39.71%) that agreed, 14 were traditionally certified and 13 were alternatively certified, of the 20 (29.41%) who disagreed, seven were traditionally certified and 13 were alternatively certified, of the three (4.41%) respondents that strongly disagreed, all three were alternatively certified, and three (4.41%) of the respondents that responded that they were unsure, two were traditionally certified and one

was alternatively certified. Of the three (4.41%) respondents that skipped this item, two were alternatively certified and one also skipped the teacher type and as is listed as skipped item.

Table 94 Response Rate by Novice Special Education Teacher Participants

Teacher Type	Strongly Agree	Agree	Disagree	Strongly Disagree	Not Sure	Skipped Item	Total Respondents
Novice	4	7	4	0	0	0	15
Traditional	1	0	2	0	0	0	
Alternative	3	7	2	0	0	0	
Percentage	26.67%	46.67%	26.67%	0%	0%	0%	

Of the 15 novice respondents, four respondents (26.67%) strongly agreed, seven (46.67%) agreed, and four (26.67%) disagreed. Of the four (26.67%) of the respondents who strongly agreed, one was traditionally certified and three were alternatively certified, of the seven (46.67%) that agreed, all seven were alternatively certified, and of the four (26.67%) who disagreed, two were traditionally certified and two were alternatively certified.

Table 95 Comments

Respondent Comments	
TC Teacher #2 #29	I feel we generally learned these practices but didn't study or practice them in depth.

Item 41: My program thoroughly prepared me to establish a caring, stimulating, and safe community for learning in which democratic values are fostered and students assume responsibility for learning, show willingness to take intellectual risks, develop self-confidence, and learn to work independently and collaboratively.

Table 96 Response Rate by All Participants

Teacher Type	Strongly Agree	Agree	Disagree	Strongly Disagree	Not Sure	Skipped Item	Total Respondents
Total	19	31	9	2	3	4	68
Respondents	9	13	3	0	2	1	
Traditional	10	18	6	2	1	2	
Alternative	0	0	0	0	0	1	
Skipped item	27.94%	45.59%	13.24%	2.94%	4.41%	5.88%	

For item 41, there was a total of 64 (94.12%) respondents that participated in this item. Four (5.88%) of the respondents skipped this item and are listed in the far right under “skipped items”. One of the respondents that skipped this item was traditionally certified, two were alternatively certified and the other individual that skipped this item also skipped the teacher type and is listed as skipped items and skipped item. Of the 19 (27.94%) respondents who strongly agreed, nine were traditionally certified and 10 were alternatively certified, of the 31 (45.59%) that agreed, 13 were traditionally certified and 18 were alternatively certified, of the nine (13.24%) who disagreed, three were traditionally certified and six were alternatively certified, of the two (2.94%) respondents that strongly disagreed both were alternatively certified, and three (4.41%) of the respondents that responded that they were unsure, two were traditionally certified and one was alternatively certified. Of the four (5.88%) respondents that skipped this item, one was traditionally certified, two were alternatively certified and one also skipped the teacher type and as is listed as skipped item.

Table 97 Response Rate by Novice Special Education Teacher Participants

Teacher Type	Strongly Agree	Agree	Disagree	Strongly Disagree	Not Sure	Skipped Item	Total Respondents
Novice	7	6	2	0	0	0	15
Traditional	1	1	1	0	0	0	
Alternative	6	5	1	0	0	0	
Percentage	46.67%	40%	13.33%	0%	0%	0%	

Of the 15 novice respondents, seven respondents (46.67%) strongly agreed, six (40%) agreed, and two (13.33%) disagreed. Of the seven (46.67%) of the respondents who strongly agreed, one was traditionally certified and six were alternative certified, of the six (40%) that agreed, one was traditionally certified and five was alternatively certified, of the two (13.33%) who disagreed, one was traditionally certified and one was alternatively certified. There were no open-ended comments for Item 41.

Item 42: My program thoroughly prepared me to select, adapt, create, and use rich, unique, and varied resources, both human and material, to promote individual student learning.

Table 98 Response Rate by All Participants

Teacher Type	Strongly Agree	Agree	Disagree	Strongly Disagree	Not Sure	Skipped Item	Total Respondents
Total	19	29	14	1	2	3	68
Respondents	10	11	6	0	1	0	
Traditional	9	18	8	1	1	2	
Alternative	0	0	0	0	0	1	
Skipped item	27.94%	42.65%	20.59%	1.47%	2.94%	4.41%	
Percentage							

For item 42, there was a total of 65 (95.59%) respondents that participated in this item. Three of the respondents skipped this item and are listed in the far-right column under “skipped items”. Two of the respondents that skipped this item was alternatively certified and the other individual that skipped this item also skipped the teacher type and is listed as skipped items and skipped item. Of the 19 (27.94%) respondents who strongly agreed, 10 were traditionally certified and nine were alternatively certified, of the 14 (20.59%) that agreed, six were traditionally certified and eight were alternatively certified, of the 14 (20.59%) who disagreed, six were traditionally certified and eight were alternatively certified, one (1.47%) respondent that strongly disagreed was alternatively certified, and two (2.94%) of the respondents that answered that they were unsure, one was traditionally certified and one was alternatively certified. Of the three (4.41%) respondents that skipped this item, two were alternatively certified and one also skipped the teacher type and is listed as skipped item.

Table 99 Response Rate by Novice Special Education Teacher Participants

Teacher Type	Strongly Agree	Agree	Disagree	Strongly Disagree	Not Sure	Skipped Item	Total Respondents
Novice	7	5	3	0	0	0	15
Traditional	1	0	2	0	0	0	
Alternative	6	5	1	0	0	0	
Percentage	46.67%	33.33%	20%	0%	0%	0%	

Of the 15 novice respondents, seven respondents (46.67%) strongly agreed, five (33.33%) agreed, and three (20%) disagreed. Of the seven (46.67%) of the respondents who strongly agreed, one was traditionally certified and six were alternatively certified, of the five (33.33%) that agreed, all five were alternatively certified, of the three (20%) who disagreed, two were traditionally certified and two were alternatively certified.

Table 100 Comments

Respondent Comments	
AC Teacher #1	I followed the ACP path as the way to become an educator, I am currently a Grad student in the Special Education/Diagnostician program. I can tell everything I learned about education had been through the PD over the years. The program itself was very vague and had no depth or complexity in teacher preparation. I had been fortunate to count with my background knowledge from my grad program, otherwise for another regular teacher without this preparedness, it would be chaotic.

Please share any other comments you have below:

Table 101 Additional, optional comments.

Respondent Comments	
TC Teacher #63	I feel that my program in college taught me more of a theory of teaching and a random assortment of techniques than what actually happens inside the classroom.
AC Teacher #43	My ACP program did not prepare me well enough to take on the task in the classroom. I had to learn on my own through PD's and research.
TC Teacher #29	Overall, after going through these questions and as I stated in many of the comments, my graduate program did cover most topics on the surface. However, I gained more in-depth knowledge through supervisor feedback and professional developments.
AC Teacher #21	I was offered a job before obtaining certification. The online lessons and quiz materials were sloppy, basic, and easily forgettable. Without support from my school or my certification program, I learned to the job on my own. I was surprised at the amount of work required for certification that was contrasted by the lack of real takeaway knowledge. Now in my 4th year of teaching, I have the information brought to me that seems to be common knowledge for other educators, while I feel like an intern just learning the ropes.
AC Teacher #19	I learned more being in the classroom than through my ACP program.
AC Teacher #16	Teachers should learn how to properly use teachers' editions books along with online resources.

Table 101 (continued).

TC Teacher #14	My teaching program thoroughly prepared me for many situations I would face. Initially, I believed the preparedness was too extensive but realized after I began teaching and experiencing unique situations that it was beneficial.
TC Teacher #9	Teachers in SPED need more training and support to execute responsibilities as expected. Classes need to be smaller and there is a great need for support within the district. Support from administration and resources as well as mentorships. There is a need for support for parents. An office with resources/training for parents of students /w special needs is greatly needed in the district
TC Teacher #5	Because of my program, I felt confident to go into my first year of teaching in January. I was one of the youngest on my staff, had a master's degree, but zero experience. I loved my program and still correspond with my professors from it. my bachelors and masters were from the same university.

Semi-Structured Interview Data

The qualitative data in my study is primarily represented by the semi-structured interview responses. The questions asked of participants were oriented to elicit their perceptions of preparedness that novice alternatively certified special education teachers have in their initial years in the classroom. The focus of the qualitative portion of the study is based on the unique perceptions of preparedness of novice alternatively certified special education teachers. The challenge is that the term “novice teacher” does not have the same meaning to all researchers. It includes teachers in their first semester of teaching and encompasses teachers all the way up to and including the fifth year of teaching. There are different interpretations of the “novice teacher,” such as a teacher in their first semester of teaching (Curry, Webb, & Latham, 2016), a teacher in their first-year of teaching (Ingersoll, & Strong 2011); a teacher with up to 3 years of experience (Barrett et al., 2002); or a teacher with up to five years of teaching experience (Kim & Roth, 2011). For the purpose of this study, a novice teacher is a teacher who has three or less years of experience in the classroom.

While the survey data focused on the difference between alternatively and traditionally certified novice special education teachers, the interview portion focused on the specific needs of novice alternatively certified special education teachers. In order to answer this, all 68 participants of the initial study participants were given the opportunity to participate by self-selecting to participate in the study. From the initial potential pool of participants, there were 12 alternatively certified novice teachers; five self-selected to be interviewed.

The interview questions were formulated based on two previously conducted studies: Bledsoe, Trotti, Hodge, and Talbert (2016), and Rupper, Neeper, and Dalsen (2016). Bledsoe, Trotti, Hodge, and Talbert (2016), studied 57 “early career” teachers (teachers with less than three years of experience). The teacher perceptions of preparedness were measured according to seven competencies established by Texas Association of Colleges of Teacher Education (TACTE). The semi-structured interviews’ guiding questions addressed: (a) Content knowledge; (b) Content and critical thinking; (d) Assessment; (e) Use of Data for instructional decisions; (f) Instruction for diverse learners; (g) Interactions with parents, colleagues and students; and (h) Lifelong learning.

The semi-structured interviews having been completed, I undertook the process to transcribe each interview and read them. I first listened to the interview recordings to gain an overall feel for the responses. I then listened to the respective recordings, following along with transcripts, and marking the transcripts at any response that I found interesting or curious. I made note, for example, of responses that were delivered with raised voice, that included seemingly extended commentary, or that were simple and short. After I had listened to the interview recordings twice, read the transcripts, and compared the transcripts with the recordings, I once again went back through the transcripts. My intention with performing a side-

by-side comparison of the transcripts, was to identify the questions that appeared to receive the greatest response, as measured by voice inflection and length of response. Through this process, a singular theme emerged. The theme revealed a commonality among alternatively certified novice special education teachers. The theme: What I didn't realize I needed, until I was in the classroom.

The perspective that the participants shared was based on hindsight. The participants' responses to the interview questions illustrated their needs as they came to know them, based on their teaching experience. Once in the classroom, they were able to identify areas in which they were not as prepared as needed. One example was the discussion related to the need for additional direct support.

During the interviews, at different times, the participants would interject their ideas of how additional direct support with particular instructional practices was needed. Teacher 1 was concerned with the lack of coaching she received and believed to be lacking for novice teachers, in general. She expressed that it was not fair to hold novice teachers to the same level of accountability as veteran teachers, if the novice teachers did not have the expectations explained or modeled.

sometimes administrators have higher expectations to what they, what they really have. I mean they, they, they know that they are hiring a new teacher, but they're requesting results as an experienced teacher. So it, it has to be more commensurate. If I am and administrator, I have hired a new teacher, I will need to provide all the support and coaching. I know that my expectations, are not really high or they could be high, but if they are that high as an experienced teacher, then the new, teachers cannot be punished for that. (43:34)

Teacher 5 also expressed concern for novice teachers, especially those in their first year, being placed on growth plans, when they haven't been guided and coached.

because I was actually a mentor teacher myself or you know, um, and then provide them, you know, coaching, you know, with as much as possible give them the opportunity. I wouldn't say their first year put them on those plans. Like that doesn't make any sense to me at all to put a new teacher on of those where a new teacher on of those, like that does not make sense to me at all. Um, but you know, teachers, freshman teachers should definitely be given that opportunity to, you know, Hey, you're a first-year teacher, this is this, this is that. And you know, we'll, we'll work with you to, you know, a certain nitpicking. They should, I think first year teachers exempt from a growth plan. Like it doesn't make sense to me at all. (57:31)

Teacher 2 was grateful for the introduction to differentiated instruction, especially when it came to learning style. However, the introduction was too cursory and she felt a more in-depth discussion would have been more beneficial.

different learning how to look out for different learning styles. Um, telling me how to look at the scope and sequence, how to look at the type and break the type down and how to draw my lessons from the guidelines that gave me the foundation to make my foundation stronger so I know where I'm drawing my information from and I'm not just coming up with stuff off the top of my head. (6:40)

Teacher 5 acknowledged the heavy reliance on data and being able to analyze student data. The ability and comfort in understanding and utilizing data for progress monitoring and assessments.

Um, I think like, I feel like a course, uh, maybe like a course or two or having us to, you know, do maybe completely like a research project or something as related to, um, as

related to progress monitoring and data assessments that way. Like I say, we will be in the work ourselves and we definitely would have a deeper understanding of the importance of, you know, why things are as data driven as they are now basically.

Absolutely. That makes sense. Yeah. (13:27)

The notion of face-to-face time with an experienced teacher as a need was expressed by Teacher 4.

I feel like there should have been not, it should have been a little less online and more in person. I think if they had a had more in person being that it would have been better. I know that they had like one in person, um, like seminar that you could go to go by the time I found out about it, it was too late, but I didn't get a chance to go to it. So maybe like them being more, I guess communicating more about the um, uh, like the face to face opportunity that they had that would help you. Um, I think that that would, would have been better for the program. (9:00)

There was an expressed need for guidance in developing lessons plans. Teacher 1's response exemplified this need.

I don't know, maybe once a week for two hours with the new teacher that I have assigned as teacher specialist and kind of helping them in team planning and developing lesson, reviewing the lessons that they're creating. Um, they seen in them in the campus, go and do observations and definitely work together with whoever is on the campus doing the same

Teacher 4 captured the recurring theme of the need for a mentor.

Um, probably meeting with teachers who've actually been through the program previously and could give them, you know, insight on what they did and how they were

able to thrive and grow during their time in the program. So maybe if they had had more, uh, cause um, some, some teachers, they didn't get a mentor. I mean I got, you know, to have a mentor, but some teachers did. So maybe they could get a mentor, find a way to hook them up with a mentor. (53:03)...I got a mentor who I could say she was wonderful because she actually had taught for so many years and done the position that I had done. And, and with, uh, so because, uh, I had that person, I had someone if I felt overwhelmed or if I really needed to talk to someone or how I could implement or do something, they had like inside knowledge on how to do it and they were able to, you know, give me the recent or me refocused me in I guess in a fan because they have been doing this for so many years. So they were able to analyze, okay, sometimes you got to take a breather, you know, do this, you know, do that if you need me to help you with did. So, I had someone who actually was really good at what they were doing and really, you know, understood. Being overwhelmed as a, you know, a novice teacher. (53:38)

The previously cited examples of perceived needs of alternatively certified novice special education teachers coalesce around the notion of mentorship, guidance, and coaching. The areas represented included lesson planning specific to IEPs, health goals, and behavioral goals; classroom management strategies; specifics of addressing autism, dyslexia, and other particular learning disabilities. While some of the responses could be applied to the needs of any novice teacher, my analysis was directed at identifying those needs specific to special education teachers.

The Intersection of the Data

I analyzed the three data sources (survey multiple-choice data, survey open-ended comments, and interview responses) together. Overall, there was consistency in responses among

data. However, there were areas that illustrated a contrast between traditionally certified and alternatively certified teachers. Six areas illustrated this difference.

Survey item 9 asked: Overall, I feel that my program thoroughly prepared me to be a successful special education teacher. The traditionally certified special education teachers felt more prepared than alternative certified special education teachers. This was consistent with the interview data, where alternatively certified teachers' responses included,

They prepared me very well for understanding what I'm going to be teaching as far as core subjects, but they didn't prepare me for special education, and I specifically signed up for special ed. They prepared me for my generalist side, but they didn't prepare me for my special ed side, and that's the area where I needed the most guidance. (Teacher 2, 39:58)

This response by Teacher 2 was shared by three of the four other interview participants.

Survey item 12 queried: My program thoroughly prepared me for an appropriate student learning pace. All traditionally certified special education teachers either agreed or strongly agreed with this statement. The alternatively certified special education teachers' responses were distributed among Strongly Agree (8.3%), Agree (50%), Disagree (33%), and Not Sure (8.3%). There was not the same level of confidence among alternative certified special education teachers compared to their traditionally certified peers.

Survey item 13 queried: My program thoroughly prepared me for multiple modalities of instruction. Once again, the traditionally certified teachers expressed a greater degree of preparedness (100%) than their alternatively certified peers. Alternative certified teacher responses were distributed among the choices: Strongly Agree (8.3%), Agree (58%), Disagree (25%), and Not Sure (8.3%).

Survey item 16 asked: My program thoroughly prepared me with content knowledge. The traditionally certified teachers agreed they were thoroughly prepared with content knowledge (100%), which is in contrast to their alternatively certified peers. Alternative certified teachers' responses were spread-out among the choices: Strongly Agree (25%), Agree (41.6%), Disagree (16.6%), Strongly Disagree (8.3%) and Not Sure (8.3%). The corresponding interview responses by alternatively certified teachers are similarly disparate. One participant was very pleased with content knowledge preparedness but another, in contrast, was not pleased. Teacher 2, for example, shared "it gave me a lot of resources to download, and they had also like modules that I could do that catered to special education" (09:40). Teacher 1, in contrast, shared, "No, not at all (05:02).

Survey item 17 queried: My program thoroughly prepared me with pedagogical knowledge. Traditionally certified special education teachers felt more prepared with pedagogical knowledge (100%). Alternative certified teachers' responses, while the majority either strongly agreed or agreed, were nonetheless spread-out among the choices: Strongly Agree (41.6%), Agree (41.6%), Disagree (8.3%) and Not Sure (8.3%).

Survey item 18 asked: My program thoroughly prepared me with the knowledge and skills to demonstrate a positive impact for my students' learning and development. All traditionally certified teachers chose Strongly Agree (100%), while the choices of the alternative certified teachers were, once again, more disparate: Strongly Agree (25%), Agree (58%), and Not Sure (17%). I am curious why teachers chose Not Sure, but since the survey was completed anonymously. It was not possible for me to follow-up.

Survey item 24 queried: My program thoroughly prepared me to use multiple methods of assessment and data sources in making educational decisions. The traditionally certified teachers

chose Strongly Agree (33%) or Agree (67%). The alternative certified special education teachers' choices included a comparable percentage who strongly agreed. However, where a higher percent among traditionally certified agreed, the percent was lower among alternative certified but who disagreed: Strongly Agree (33%), Agree (50%), and Disagree (17%). One interview response did a good job of capturing the sentiment expressed by those who either strongly agreed or agreed.

I feel very comfortable that they talked a lot about different uh, assessments, formative, summative, so I feel very comfortable with that data collection and things like that gave me a lot of different ways the data collects. Um, I feel really comfortable with them. They were really good with that. Um, they had a lot of modules, the different forms you're able to print out different form, download and print out different forms to help collect data of your students. So, I felt very comfortable when it came to using assessments and, and data collection and things like that with them. That was, they, they, they provided a lot of resources for that. (Teacher 4, 19:57)

Survey item 25 asked: My program thoroughly prepared me to select, adapt, and use a repertoire of evidence-based instructional strategies to advance learning of individuals with exceptionalities. Among the traditionally certified special education teachers' responses, none chose Strongly Agree. They chose Agree (67%) and Disagree (33%). The alternatively certified teachers' responses included: Strongly Agree (25%), Agree (58%), and Disagree (17%). This suggests that the alternatively certified teachers felt more prepared to select, adapt, and use a repertoire of evidence-based instructional strategies than the traditionally certified teachers.

Survey item 37 queried: My program thoroughly prepared me to develop and foster communication skills that enable students to access, comprehend, and apply information; acquire

knowledge, and develop and maintain interpersonal relationships. The responses by the traditionally certified special education teachers were evenly distributed between Strongly Agree (33%), Agree (33%) and Disagree (33%). Among the alternatively certified teachers, no one chose Disagree; responses included Strongly Disagree (42%) and Agree (58%). Alternatively-certified teachers felt more thoroughly prepared to teach develop and foster communication skills that enable students to access, comprehend, and apply information; acquire knowledge, and develop and maintain interpersonal relationships than traditionally certified teachers. The spread of alternatively certified teachers was narrower and while one traditionally certified teacher disagreed out of three teachers, none of the alternatively certified teachers (out of 12) felt that they disagreed.

Each of the survey items and accompanying interview notes suggest a noticeable disparity between traditionally certified and alternatively certified special education teachers' responses. Among other survey items, when compared to open-ended comments, and interview responses, these eight items illustrated a contrast between traditionally certified and alternatively certified teachers' perspectives. I found the disparities curious. Therefore, each was cause for special consideration for a comprehensive data analysis.

Chapter Summary and Conclusion

The chapter provides the data analysis of the differences between alternatively certified and traditionally certified special education teachers. The chapter presents the research questions, data collection procedures, a demographic review of the study participants, the quantitative and qualitative approaches to the data review, the data analysis, findings, and results for the study participants and how the novice teachers in this study differed from the population at large.

This mixed-mixed methods study consisted of 68 special education teachers from a single school district in Texas. The study population consisted of 15 novice (0-3 years of experience) special education teachers for the quantitative study and 5 alternatively certified teachers within the same school district. The quantitative portion of this study consisted of 44 Likert scaled questions using a 5-point scale developed from four that focused on teaching frameworks. The qualitative portion was developed using two previous studies that focused on novice teachers and the perceptions of preparedness of teachers working with special education children.

The data analysis revealed three findings: (a) novice traditionally certified teachers felt more thoroughly prepared to teach in the theoretical aspects of the profession (student learning pace, teaching to student multiple modalities, and student pedagogical knowledge) and making a direct positive impact to student learning and development; (b) alternatively certified novice teachers felt more prepared for the practical impact to student learning of the profession (multiple methods of assessment, instructional strategies, teaching a specialized curriculum, and using a core curriculum); and (c) both sets of teachers felt that their initial program prepared them with the basic knowledge of the profession.

Further discussion and a more complete analysis into the overview and interpretations of this chapter are discussed in Chapter 5 of this treatise. Chapter 5 will also focus on research significance, implications of the study, recommendations for future research, and overall conclusions.

CHAPTER FIVE: DISCUSSION, IMPLICATIONS, AND CONCLUSIONS

School districts throughout the United States have dealt with a critical shortage of appropriately certified teachers. This shortage is especially acute in bilingual and special education departments (Sutcher, Darling-Hammond, & Carver-Thomas, 2016). Since the 1980s, these shortages have become even more pronounced, as a new influx of students with special needs have entered the school systems, while at the same time many teachers have retired (Lutz & Hutton, 1989). Therefore, state legislatures enacted laws to address these shortages and teachers with “alternative certifications” entered the classroom.

The purpose of this study was to determine if there is a difference in the perceptions of preparedness between teachers who entered the special education classrooms with traditional certification, compared to teachers who possess alternative certification. The results of this study can be used by alternative certification teacher preparation programs to better support novice teachers entering the field, school district leadership to better develop training programs, and campus leadership to better support these teachers during their initial years in the classroom. By positively supporting novice special education teachers, teachers will feel more confident and prepared. They will also be more likely to stay in the classroom as direct support from the campus principal has been shown to be one of the main reasons why teachers stay in the classroom (Ingersoll, 2001). Finally, having a more stable workforce will lead to having our most vulnerable students being positively impacted through increased student achievement.

This study is not intended to create a new theory regarding the preparedness of traditionally or alternatively certified special education teachers. Hopefully, it will contribute new knowledge that will help to understand the perceptions of novice special education teachers,

especially those who are alternatively certified. This knowledge may assist those entities involved with the preparation of these teachers.

The chapter is organized into six sections: (a) overview of the study; (b) summary of results; (c) implications for practice; (d) implications for further research; (e) conclusion; and (f) summary.

Summary of Results

The research project was a mixed methods study of special education teachers in one school district in Texas. A survey was distributed and completed by 68 special education teachers in the district. I utilized the SurveyMonkey computer application for the design, distribution, and analysis of survey data. Interviews were also conducted with five participants, each of whom provided a unique perspective on their experience as a novice special education teacher. Each interview was recorded, transcripts of the recordings were created, and there was a combination of listening to recordings and reading through transcripts to identify emergent themes. The emergent themes from the interviews were compared to the survey data, which included open-ended comments. Where the data sets converged, I identified the results of the study, which are presented in this chapter.

The data analysis was included in the context of the three research questions that guided the study.

1. What are the perceptions of preparedness of novice alternatively certified special education teachers?
2. What are the perceptions of preparedness of novice traditionally certified special education teachers?

3. What are the differences in perceptions of preparedness between the two groups of teachers?

The results of my study include three findings:

Finding #1: novice traditionally certified teachers felt more thoroughly prepared to teach the theoretical aspects of the profession (student learning pace, teaching to student multiple modalities, and student pedagogical knowledge) and making a direct positive impact to student learning and development.

As I reviewed and analyzed the survey results, I found that the survey items addressing the more theoretical aspects of teaching, such as pedagogy, were more frequently selected by traditional certified special education participants. These teachers more frequently marked the choices Strongly Agree or Agree. This was true for questions 12 (appropriate student learning pace), 13 (multiple modalities of instruction), 18 (knowledge and skills to demonstrate positive impact for student learning and development), and question 9 (being thoroughly prepared to be a successful special education teacher).

In contrast, the alternatively certified teachers did not mark those choices with such frequency. During the interviews, the alternatively certified teachers did not mention the theoretical aspects of teaching, when asked, for example, to identify aspects of their preparation programs where they would like more discussion.

When reviewing the demographics of the participants, I also found the data on the tenure of traditional certified compared to alternatively certified, and the frequency of choices for the survey items to be interesting. Novice teachers were predominantly alternatively certified, compared to teachers with four or more years' experience, who were traditionally certified. Of all the special education teachers, 39 were alternatively certified and 28 were traditionally

certified. This observation is even more pronounced for the novice teachers in this study. A total of 12 novice special education teachers were alternatively certified, while only three were traditionally certified special education teachers.

The Every Student Succeeds Act of 2015 (ESSA, S. 1177) was a major shift in federal policy. While testing is still mandated, it shifted the decision-making authority from the federal to the state level. This includes testing students with disabilities. This shift in authority raised new questions related to the roles of special educators and which entities would be responsible for preparing them. ESSA provides that bachelor's degrees held by a special education teacher can be in any particular field or subject, which further supports the use of alternate routes for preparing special education teachers (Shepherd, Fowler, McCormick, Wilson, & Morgan, 2016, p. 89). While a movement to utilize alternative certification routes has been in place since the early 1980s, the results of my study indicated that alternatively certified special education teachers are over represented within a school district is supported by existing national research (Taie, S., & Goldring, R., 2017).

Finding #2: alternative certified novice teachers felt more prepared for the practical impact to student learning of the profession (multiple methods of assessment, instructional strategies, teaching a specialized curriculum, and using a core curriculum).

In contrast to Finding #1, the alternatively certified novice teachers chose with greater frequency those survey items related to the practical aspects of teaching. This is reflected in their answers to questions 24 (multiple methods of assessment and data sources), 38 (cultivate a sense of efficacy in my students... respect for diverse individuals and groups), 42 (to select, adapt, create, and use rich, unique, and varied resources... to promote individual student learning), and 25 (select, adapt, and use a repertoire of evidence-based instructional strategies). These

participants chose Strongly Agree or Agree for survey items that essentially addressed the “how” of teaching, whereas the traditionally certified teachers chose the items that addressed the “why” of teaching. Alternatively certified teachers appeared to be more prepared with skills to address the use of data, instructional strategies, and work with a specialized curriculum. During the interviews, the alternatively certified novice teachers did not hesitate to share whether they felt prepared regarding aspects, such as assessments, the use of data to drive instruction, and instructional strategies. They were open to share about their level of satisfaction with their preparation.

This perspective may be related to the preparation time provided in alternative certification programs. The participants discussed their program’s structure, which for some was a matter of weeks, and included online instruction and topical modules to complete. However, there was limited face-to-face engagement with or sustained instruction by an instructor. They also did not work collaboratively with program peers. There was no concern about the lack of instructor availability. However, the program structure was accelerated and did not allow much time for interface.

The framework for my study was developed based on the standards of the organizations whose sphere of influence impacts teacher preparation and certification in the State of Texas: Texas’ State Board of Educator Certification (SBEC), the Council for the Accreditation of Educator Preparation (CAEP), the Council for Exceptional Children (CEC), and Education Service Center Region 4 (ESC4). The standards represent solutions that will address teacher shortages, clarify the roles of general and special educators, and improve the quality of special education teachers and services. These standards contain alternative preparation routes that “fast

track” actual preparation and place more importance and emphasis on training in the logistics of pedagogical training (Shepherd et al., 2016, p. 91). Prior research supports my findings.

Finding #3: both sets of teachers felt that their initial program prepared them with the basic knowledge of the profession.

There was overall consistency among traditionally and alternatively certified novice special education teachers in their satisfaction regarding preparedness for the essentials of teaching. The frequency of choosing Strongly Agree or Agree among both groups was noticeable. This was especially noticeable for questions 19 (thoroughly prepared me to teach effectively), 23 (to use knowledge of general and specialized curricula for individual learning), 32 (to use my skills as a careful observer of students to help develop my students’ knowledge, attitudes, skills, interests, aspirations, and values), 33 (to understand how philosophical, historical, and legal foundations of the field), and 35 (to work collaboratively with parents, guardians, and other caregivers to promote understanding of the student and to achieve educational goals). In all these questions there was no difference in the answers between the two groups of novice special education teachers.

During the interviews, when asked how their respective program may have prepared them better, some ideas surfaced but none of the novice teachers felt that they were not prepared. While it did not prevent any of the alternatively certified novice teachers from teaching, during the interviews, three participants expressed dissatisfaction with being held to certain expectations for student and professional performance, yet not receiving adequate coaching or mentoring.

My third finding is also supported by prior literature. Being prepared in the practical, logistical aspects of teaching, such as data management, classroom management, and completing

IEPs is essential (Friedrich, 2014). However, the sense of efficacy, and its impact on a teacher's performance and success are equally important. Preparation programs, as a learning process, are directly impacted by performance accomplishments (completing success), vicarious experiences (observing success), verbal persuasion (individual coaching), and emotional arousal (Bandura, 1977). The nature of "fast track" preparation programs, many parts of which are completed using digital platforms, may hinder the development of special education teacher efficacy (Friedrich, 2014; Shepherd et al., 2016).

Implications for Practice

If the study results indicate that novice special education teachers are predominantly alternatively certified, what steps should be taken to ensure to structure their preparation programs? If the data suggests that alternatively certified teachers do not have adequate knowledge about the theoretical aspects of teaching, what can be done to better prepare special education teachers to be more effective? Does the lack of theoretical knowledge and awareness, impact an alternatively certified teacher's ability to appreciate the nuances of the field? This has an important influence on creativity and appreciation for subtle differences in student learning. It raises the question of the value of possessing theoretical knowledge given current instructional needs.

Novice special education teacher participants expressed concern for the need to provide more mentoring and coaching, since they are held to the same performance expectations as veteran teachers. This appears to more a leadership concern than a lack of teacher preparedness. What leadership variables, such as leadership style or administrative demands, preclude sufficient mentoring for novice teachers? State standards do not take teacher tenure into

consideration. Therefore, what can be done to mitigate the negative effects of standards upon novice teachers?

This study did not directly address the role of the superintendent in the district's special education services. However, as the chief executive of a school district, the superintendent has a critical role. The role of a superintendent's leadership on special education is extremely important. As the district's CEO, the superintendent must lead and manage the district's efforts in providing the highest quality educational experience for all students. Olivarez, Pringle, and Reyna (2018), in *The Cooperative Superintendency Program Field Experience Guidebook*, discuss ten functions that collectively represent the scope of a school district's operations. One function is curriculum and instruction. Curriculum and instruction "ensures that the state adopted curriculum is organized and provided to campuses." It includes "the planning and delivery of professional development activities," and "guidance for special district-adopted programs that address the learning characteristics...of specific student populations" (p. 21). The superintendent is in a critical position to impact the quality of the curriculum, instructional practices, and guiding the priorities for training and development activities systemwide. This study's findings further emphasize the superintendent's role in shaping special education programs and services in a school district.

Recommendations for Further Research

This study did not compare and contrast novice and veteran special education teachers. This research suggests that there are differences in certification attainment between traditionally and alternatively certified teachers. A potential area for additional research would be to try to gain a better understanding of whether this is indicative of a sustained shift in certification attainment, and if so, its impact on student performance due to differences in preparedness.

This study did not address differences between self-contained special education classrooms and integrated classrooms (where regular classrooms might include special education students). A useful research area would be to assess and offer suggestions on the necessary baseline knowledge and skills required for regular certified teachers, whose classrooms will include special education students.

Conclusion and Summary

This treatise is being completed during an unprecedented time, since the world is confronted by the challenges of the COVID-19 pandemic. As a result, every organization must re-imagine itself and how it functions. The same is true for education. Instruction is taking place remotely and digitally. Administrative functions are being addressed through the use of the Zoom digital platform. In many instances, food services are being offered to students on a drive-thru, pick-up basis. My research was conducted before the advent of COVID-19. However, I believe that my findings will remain applicable to any future paradigm for education.

My findings are consistent with previous research on the impact of policy changes to teacher preparation. Teacher preparation had been the domain of higher education. However, there has been a shift and the majority of novice special education teachers are now alternatively certified. Although they appear to be satisfied with their preparation, yet are not necessarily pedagogically prepared as were prior traditionally certified teachers. The shift that has encouraged alternative routes to certification represents a solution to addressing teacher shortages and meeting the needs of special education students. There was a paradigm shift by which alternative certification became an acceptable and plausible solution to meeting this

challenge. It is expected that the same spirit of ingenuity will guide how special education teacher preparation includes solutions to meet the challenges presented by COVID-19.

Appendix A Data Collection Protocols

Hello, I am a doctoral student from Cooperative Superintendency Program with University of Texas, Austin. I am completing research for my dissertation on the perceptions and feelings of professional preparedness of novice traditionally and alternatively certified special education teachers. Thank you so much for your help!

There are two parts of the questionnaire, multiple-choice questions and open questions. Please answer them honestly, thank you.

Part I: Multiple-choice Questions- Demographics (three questions, estimated time: one minute)

1. What is your gender?
 - A. Male
 - B. Female
2. Are you in the first three years of teaching experience in the special education classroom?
 - A. Yes
 - B. No
3. How many years of special education teaching experience do you have?
 - A. 0-1
 - B. 2-3
 - C. 4-7
 - D. 8-10
 - E. 10+
4. What is your age?
 - F. 18-24
 - G. 25-34
 - H. 35-44
 - I. 45-54
 - J. 55-64
 - K. 65-74
 - L. 75+
5. What is your level of education?
 - A. Less than bachelor's degree
 - B. Bachelor's degree
 - C. Bachelor's degree + Master's degree credits
 - D. Master's degree
 - E. Master's degree + Doctoral degree credits
 - F. Doctoral degree
6. Did you enter teaching through an alternative route to certification program? (An alternative route to certification program is a program that was designed to expedite the transition of nonteachers to

a teaching career, for example, a state, district, or university alternative route to certification program.)

- A. Yes
- B. No

7. Which of the following best describes your current job level?
- A. Early Childhood (Preschool-Kindergarten)
 - B. Early Elementary School (1st-2nd grade)
 - C. Elementary School
 - D. Middle School
 - E. High school
 - F. Other: _____

Quantitative Portion:

Part II: Multiple-choice Questions- How much do you agree with the following statements?

1. Overall, I feel that my program thoroughly prepared me to be a successful special education teacher.
- A. Strongly agree
 - B. Agree
 - C. Disagree
 - D. Strongly disagree
 - E. Unsure

Multiple-choice Questions- Competency-based teacher education framework (ten questions, estimated time: three minutes) How much do you agree with the following statements? (Gervais, J., 2016)

1. My program thoroughly prepared me for a variety of school learning environments:
- A. Strongly agree
 - B. Agree
 - C. Disagree
 - D. Strongly disagree
 - E. Unsure
2. My program thoroughly prepared me for appropriate student learning progression:
- A. Strongly agree
 - B. Agree
 - C. Disagree
 - D. Strongly disagree
 - E. Unsure
3. My program thoroughly prepared me for appropriate student learning pace:
- A. Strongly agree
 - B. Agree
 - C. Disagree

- D. Strongly disagree
 - E. Unsure
4. My program thoroughly prepared me for multiple modalities of instruction:
- A. Strongly agree
 - B. Agree
 - C. Disagree
 - D. Strongly disagree
 - E. Unsure
5. My program thoroughly prepared me for multiple modalities of assessment:
- A. Strongly agree
 - B. Agree
 - C. Disagree
 - D. Strongly disagree
 - E. Unsure
6. My program thoroughly prepared me to grade effectively:
- A. Strongly agree
 - B. Agree
 - C. Disagree
 - D. Strongly disagree
 - E. Unsure

Multiple-choice Questions- Council for the Accreditation of Educator Preparation competencies (ten questions, estimated time: three minutes) How much do you agree with the following statements? (Council for the Accreditation of Educator Preparation, 2013)

1. My program thoroughly prepared me with a content and pedagogical knowledge:
- A. Strongly agree
 - B. Agree
 - C. Disagree
 - D. Strongly disagree
 - E. Unsure
2. My program thoroughly prepared me with the knowledge and skills to demonstrate positive impact for my students' learning and development:
- A. Strongly agree
 - B. Agree
 - C. Disagree
 - D. Strongly disagree
 - E. Unsure
3. My program thoroughly prepared me to teach effectively:
- A. Strongly agree
 - B. Agree

- C. Disagree
- D. Strongly disagree
- E. Unsure

4. Overall, my preparation was relevant to the responsibilities they confront on the job, and that the preparation was effective.
- A. Strongly agree
 - B. Agree
 - C. Disagree
 - D. Strongly disagree
 - E. Unsure

Multiple-choice Questions- Council for Exceptional Students competencies (ten questions, estimated time: three minutes) How much do you agree with the following statements?
(Council for Exceptional Children., 2015)

1. My program thoroughly prepared me to understand how exceptionalities may interact with development and learning and use this knowledge to provide meaningful and challenging learning experiences for individuals with exceptionalities.
 - A. Strongly agree
 - B. Agree
 - C. Disagree
 - D. Strongly disagree
 - E. Unsure
2. My program thoroughly prepared me to create safe, inclusive, culturally responsive learning environments so that individuals with exceptionalities become active and effective learners and develop emotional well being, positive social interactions, and self-determination.
 - A. Strongly agree
 - B. Agree
 - C. Disagree
 - D. Strongly disagree
 - E. Unsure
3. My program thoroughly prepared me to use knowledge of general and specialized curricula to individualize learning for individuals with exceptionalities.
 - A. Strongly agree
 - B. Agree
 - C. Disagree
 - D. Strongly disagree
 - E. Unsure
4. My program thoroughly prepared me to use multiple methods of assessment and data sources in making educational decisions.
 - A. Strongly agree

- B. Agree
 - C. Disagree
 - D. Strongly disagree
 - E. Unsure
5. My program thoroughly prepared me to select, adapt, and use a repertoire of evidence-based instructional strategies to advance learning of individuals with exceptionalities.
- A. Strongly agree
 - B. Agree
 - C. Disagree
 - D. Strongly disagree
 - E. Unsure
6. My program thoroughly prepared me to use foundational knowledge of the field and their professional ethical principles and practice standards to inform special education practice, to engage in lifelong learning, and to advance the profession.
- A. Strongly agree
 - B. Agree
 - C. Disagree
 - D. Strongly disagree
 - E. Unsure
7. My program thoroughly prepared me to collaborate with families, other educators, related service providers, individuals with exceptionalities, and personnel from community agencies in culturally responsive ways to address the needs of individuals with exceptionalities across a range of learning experiences.
- A. Strongly agree
 - B. Agree
 - C. Disagree
 - D. Strongly disagree
 - E. Unsure

Multiple-choice Questions- National Board for Professional Teaching Standards (ten questions, estimated time: three minutes) How much do you agree with the following statements? (National Board of Professional Teaching Standards., 2010)

1. My program thoroughly prepared me to use knowledge of human development and learning and their skills as careful observers of students to help develop students' knowledge, aptitudes, skills, interests, aspirations, and values.
- A. Strongly agree
 - B. Agree
 - C. Disagree
 - D. Strongly disagree
 - E. Unsure

2. My program thoroughly prepared me to understand how philosophical, historical, and legal foundations of their field inform the development of effective practice.
 - A. Strongly agree
 - B. Agree
 - C. Disagree
 - D. Strongly disagree
 - E. Unsure
3. My program thoroughly prepared to create an environment in which equitable treatment, fairness, and respect for diversity are modelled, taught, and practiced by all.
 - A. Strongly agree
 - B. Agree
 - C. Disagree
 - D. Strongly disagree
 - E. Unsure
4. My program thoroughly prepared me to work collaboratively with parents, guardians, and other caregivers to promote understanding of the student and to achieve educational goals.
 - A. Strongly agree
 - B. Agree
 - C. Disagree
 - D. Strongly disagree
 - E. Unsure
5. My program thoroughly prepared me to design, select, and use a variety of assessments to obtain accurate, useful, and timely information about student learning and development and to help students reflect on their own progress.
 - A. Strongly agree
 - B. Agree
 - C. Disagree
 - D. Strongly disagree
 - E. Unsure
6. My program thoroughly prepared me to develop and foster communication skills that enable students to access, comprehend, and apply information; acquire knowledge; and develop and maintain interpersonal relationships.
 - A. Strongly agree
 - B. Agree
 - C. Disagree
 - D. Strongly disagree
 - E. Unsure
7. My program thoroughly prepared me to cultivate a sense of efficacy in my students as they develop each student's personal responsibility and independence, civic and social

responsibility, respect for diverse individuals and groups, and ability to work constructively and collaboratively with others.

- A. Strongly agree
- B. Agree
- C. Disagree
- D. Strongly disagree
- E. Unsure

8. My program thoroughly prepared me to command a core body of knowledge of the disciplines and of specialized curriculum for students with exceptional needs. They draw on this knowledge to establish curricular goals, design instruction, facilitate student learning, and assess student progress.

- A. Strongly agree
- B. Agree
- C. Disagree
- D. Strongly disagree
- E. Unsure

9. My program thoroughly prepared me to establish a caring, stimulating, and safe community for learning in which democratic values are fostered and students assume responsibility for learning, show willingness to take intellectual risks, develop self-confidence, and learn to work independently and collaboratively

- A. Strongly agree
- B. Agree
- C. Disagree
- D. Strongly disagree
- E. Unsure

10. My program thoroughly prepared me to select, adapt, create, and use rich, unique, and varied resources, both human and material, to promote individual student learning.

- A. Strongly agree
- B. Agree
- C. Disagree
- D. Strongly disagree
- E. Unsure

Qualitative Portion

Part III: Open Ended Questions- From Preparedness of Exemplary Early Career Teachers
How much do you agree with the following statements? (Bledsoe, C. L., Trotti, J., Hodge, K. J., & Talbert, T. (2016).

1. What was especially effective in preparing you to teach the subject or grade(s) of your certification?
2. How could your preparation in content knowledge been improved?
3. What skills did you acquire that have enabled you to teach content knowledge effectively?
4. How were you prepared to engage students in critical thinking?
5. In what ways did your preparation program emphasize the importance of continuous assessment and progress monitoring?
6. How was this preparation of continuous assessment and progress monitoring applicable to your first year(s) of teaching?
7. In what ways were you prepared to make instructional decisions using student data?
8. How could your teacher preparation in making instructional decisions based on student data have been improved?
9. In what ways were you equipped to meet the instructional needs of diverse learners?
10. What were the strengths of your preparation program in preparing you to interact with colleagues and parents?
11. What were the strengths of your program in preparing you to interact with students?
12. How were you encouraged to continue learning and developing new skills for the duration of your career in education?

Give feedback about your teacher preparation program as follows: well prepared, moderately prepared, not prepared:

1. How well did your teacher preparation program prepare you to teach the content in your subject area and/or grade level?
2. Describe specifically what you would have liked to have learned or experienced about different grade-level content areas in your program that you did not.

3. How well did your teacher preparation program prepare you to teach critical thinking skills to your students?
 - a. Describe the learning experiences in your preparation program that contributed to your skills in this area.
 - b. What impact have these experiences had on your performance in the classroom?
 - c. Now having taught for at least a year, what would have been beneficial to you in teaching critical thinking skills?
4. In your teacher preparation program, how much importance was placed on continuous assessment of student learning?
 - a. How well were you equipped to monitor student progress using various kinds of assessments?
 - b. Name and describe some ways you were taught to assess student learning.
 - c. Now having taught, what would have been beneficial to you in assessing student learning?
5. How well did your teacher preparation program prepare you to use data to make instructional decisions?
 - a. Describe the learning experiences that contributed to your skills to use data to make instructional decisions.
 - b. Describe information that was lacking in your preparation program about using data to drive instruction.
 - c. Now having taught, what would have been beneficial to you in using data to drive instruction?
6. How well were you prepared to address the needs of diverse learners in your teacher preparation program? In what ways did your program equip or not equip you to meet the needs of a diverse group of students?
7. How well do you feel your teacher preparation program adequately prepared you to effectively interact with students, peers, and parents?
 - a. Describe learning experiences that contributed to such interaction skills.
 - b. After your first year(s) of teaching, in what ways are you better prepared to interact with students, peers, or parents?
8. How well did your teacher preparation program encourage you to continue learning?
 - a. Describe continued professional development opportunities afforded to you in your program that leads you to a greater commitment to lifelong learning.

b. Describe continued professional development opportunities that you wish you had had in your teacher preparation program that you now know would have been helpful.

Open Ended Questions- From Special Education Teachers Perception of Preparedness to Teach Students with Severe Disabilities How much do you agree with the following statements? (Ruppar, A. L., Neeper, L. S., & Dalsen, J., 2016).

1. How well did your teacher preparation program prepare you to input/complete IEP?
2. How well did your teacher preparation program prepare you progress students towards academic goals?
3. How well did your teacher preparation program prepare you to progress towards behavioral goals?
4. How well did your teacher preparation program prepare you to work with paraprofessional assistants, special education assistants, etc.?
5. How well did your teacher preparation program prepare you to support instruction in general education classes?
6. How well did your teacher preparation program prepare you to create behavior intervention plans?
7. How well did your teacher preparation program prepare you to educate other teachers how support students in the school community?
8. How well did your teacher preparation program prepare you to set student goals with state standards?
9. How well did your teacher preparation program prepare you to teach students appropriate communication skills?
10. How well did your teacher preparation program prepare you to support students medical needs?

This is the end of the questionnaire. Thank you so much for completing this questionnaire. Please send the questionnaire to **esindaco@utexas.edu**. I promise that your personal information will not be released to any institutions but for my dissertation utilization.

Thank you so much for your help.

Eduardo D. Sindaco
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