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Rural General Education Preservice Teachers' Perceptions of Inclusion: A Study of Candidates' Self-efficacy and Attitude toward Teaching in Inclusive Classrooms

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Rural General Education Preservice Teachers' Perceptions of Inclusion: A Study of Candidates'

Self-efficacy and Attitude Toward Teaching in Inclusive Classrooms

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College of Education

Dissertation submitted to the Faculty of the College of Education

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Doctor of Education in

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Abstract

Preservice teachers understanding of inclusion; align with their perceptions about their capabilities to achieve high learner outcomes. This dissertation investigated how general education preservice teachers perceived inclusion and the role that their attitudes and beliefs played in their overall student teaching experiences in rural southeastern Washington. Guided by Bandura's social cognitive theory (1977) this case study examined their self-efficacy to teach in inclusive classrooms. Teaching is a domain of practice in which study participants can hold high efficacy beliefs and for decades, researchers have conducted studies to investigate the role of self-efficacy in education. The research population for the study consisted of final year general education preservice teachers during student teaching at elementary, middle, and high schools. The study relied on multiple sources of evidence, converging data in a triangulated manner. Data collection included survey instruments, non-participant observation, and open-ended semistructured interviews of respondents. The study extends the existing knowledge that informs rural general education preservice teachers' preparation, practice, placement policies, and research. The data revealed that preservice teachers held a positive outlook towards inclusive classrooms.

Keywords: collective efficacy, efficacy in co-teaching, preservice teacher preparation, qualitative case study, rural inclusive classrooms, rural special education, teacher self-efficacy

Dedication

To the unsung heroes and rarely recognized champions who dare to change lives through education, I dedicate this dissertation.

Acknowledgements

I want to thank Almighty God and my family for strength and understanding during the completion of this dissertation.

I want to thank Dr. Leslie Loughmiller, my dissertation committee chair, for her meticulous efforts in helping me to complete this dissertation. I could not have completed it without her tireless work. I would also like to thank my committee members, Dr. Mendes, and Dr. Ashford.

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Chapter 1: Introduction

Special education law requires the placement of students with disabilities in the least restrictive environment (Casarez, Stevens, Siwatu, & Cain, 2013). The mandate has led to the inclusion of many students with disabilities in general education classrooms, irrespective of school district location (i.e., rural, urban, or suburban). This study investigates how preservice general education teachers perceive inclusion and the role of their attitudes and beliefs about inclusion play in their overall student teaching experiences in a rural setting. Numerous research studies over the past 50 years have acknowledged preservice and in-service teacher self-efficacy beliefs as the main influence on an individual's goals, effort, choice of activities, and persistence (Klassen & Durksen, 2014).

Background, Context, History, and Conceptual Framework for the Problem

Research studies based on Bandura's (1997) social cognitive theory have outlined personal, pedagogical, and contextual factors that play a role in the development of self-efficacy beliefs in teachers (Woolfolk Hoy & Burke-Spero, 2005). Noticeably, the existing research studies conducted have been overwhelmingly quantitative in design; therefore, there has been a lack of qualitative research investigating preservice teacher efficacy beliefs (Klassen, Tze, Betts, & Gordon, 2011) particularly within rural school districts. For instance, over two decades of rural educational research studies have documented crises in how rural and remote school districts recruit and retain good teachers (Burton & Johnson, 2013; Watson & Hatton, 1995). This qualitative study follows a single case design to understand the context and present variables in how rural preservice teacher self-efficacy affects the practice of inclusion. Overall, the use of case studies allows for the exploration and understanding of general perceptions and

special education knowledge as related to self-efficacy, and attitudes of the preservice teacher during student teaching.

The study benefits from the existing theoretical understanding of self-efficacy and social cognitive theory. Social cognitive theory maintains that positive teacher outcomes are contingent on the interaction of behaviors, thoughts or beliefs, and the environment (Bandura, 1986, 1997). It is accepted by many in the existing literature that self-efficacy is a personal perception of what a person can and cannot do (Bandura, 1997; Pajares, 2002). Appropriately, Bandura (1997) described self-efficacy as "the belief in one's capabilities to organize and execute the courses of action required to produce given attainments" (p. 3). Furthermore, self-efficacy beliefs sway decisions, choice, effort, and persistence (Bandura, 1997; Schunk, 1995). Bandura (1997) posited that an individual's self-efficacy beliefs could also enhance or impede his/her motivation.

Bandura (1982, p. 122) explains an individual's perceived self-efficacy as "judgments of how well one can execute courses of action required to deal with prospective situations." Later, Bandura (1986) hypothesized the formation and development of self-efficacy through triadic relationship lenses that consider personal factors, behavior, and environmental factors (context). It also helps to think about the relationships among these factors as bi-directional. Moreover, research has shown that very efficacious teachers respond to tasks with higher amounts of professional commitment (Klassen et al., 2013), which contributes to job satisfaction (Høigaard, Giske, & Sundsli, 2012) and student achievement (Klassen & Durksen, 2014) positively.

The literature is replete with an abundance of quantitative research studies deriving statistical generalizations that account for amounts of in-service teacher self-efficacy and factors that may influence in-service teacher self-efficacy. This case study design is appropriate as it underscores the need for more studies focused on the generalization of existing theory and

contextual differences, using various qualitative research approaches investigating preservice teachers in rural settings.

Bandura explained why self-efficacy beliefs relate to preservice teachers. Bandura postulated that beliefs about self-efficacy are informed from four primary sources: mastery experiences (experiences of performance), vicarious experiences (observing models, comparing with others), verbal persuasion and feedback about performance, and physiological states, including emotional and biological (physiological) indicators. These sources relate to preservice teachers during student teaching because in theory, mentor teachers are expected to model effective teaching practices and preservice teachers (in this study), to have completed their coursework in inclusive education, and to have received feedback from instructors and mentor teachers. Unexpectedly, in the literature, levels preservice teacher self-efficacy increased during coursework but often decreases during student teaching (Woolfolk Hoy & Burke-Spero, 2005). Therefore, it is crucial to investigate how preservice general education teachers perceive inclusive classrooms and the role they play in inclusion the rural setting.

Based on Bandura's theory, the researcher developed a conceptual framework (Figure 1) to illustrate how the interaction of variables such as the exposure of coursework, the co-teaching, the mentoring, and the feedback might affect the ability of general education preservice teachers to teach in inclusive classrooms. Moreover, as indicated by the conceptual framework, preservice teachers' judgments about their capability or self-efficacy are aligned to their ability to utilize pedagogical approaches in teaching and learning in inclusive classrooms such as the principles of universal design. Students with disabilities in the inclusive classrooms need assistance in the form of modifications, accommodation, and differentiated tasks to experience academic success.

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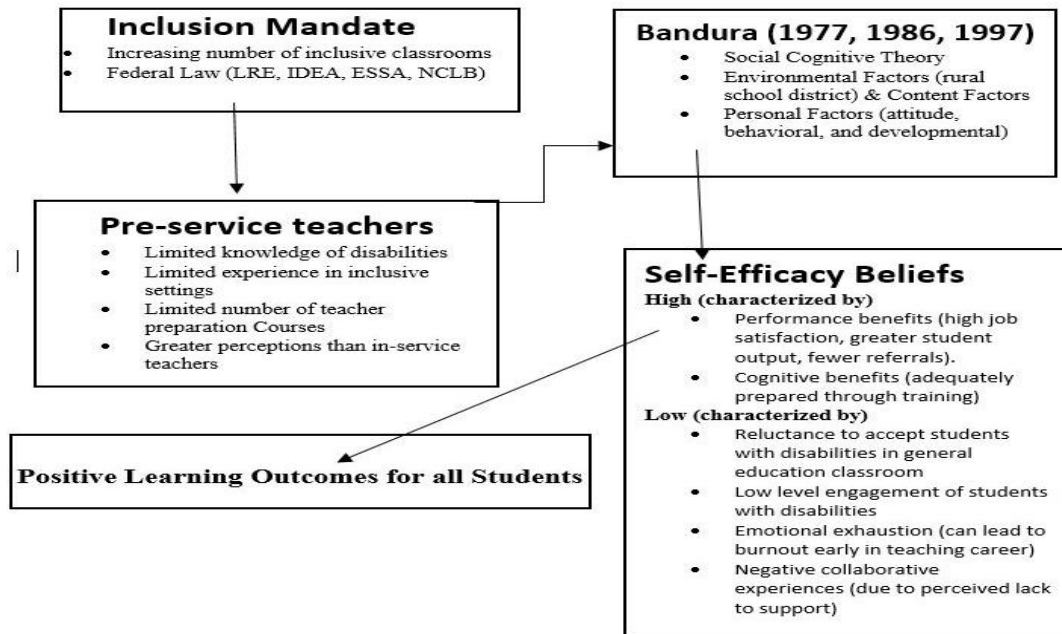
Figure 1. Conceptual framework.

Furthermore, teaching students with disabilities necessitate shifts in thought. That is, preservice teachers must be confident that they can learn how to engage with students of diverse abilities and cultivate universally inclusive instructional spaces.

Statement of the Problem

The federal Individuals with Disabilities Education Act of 1997 (IDEA), the No Child Left Behind Act of 2001 (NCLB), the Individuals with Disabilities Education and Improvement Act of 2004 (IDEIA), and the Educating All Students Act of 2015 (ESSA) require students with disabilities must have access to the general education curriculum in the least restrictive environment (LRE). These mandates have been interpreted nationally as encompassing the inclusion of students with varied disabilities in general education classrooms to the fullest possible extent. Furthermore, because attitudes towards the integration of students with disabilities in general education classes have become more favorable in recent times, in-service

general education teachers are increasingly asked to teach or co-teach in inclusive classrooms. According to the US Department of Education (2016), 61% of students with disabilities spent at least 80% of their instructional time in a regular general education classroom. In 2015, approximately 90% of regular students were taught in inclusive classes in public schools across the country.

According to research (Casarez et al., 2013; Dawson, 2008; Kim, 2011), many in-service general education teachers, unlike their special education trained peers, feel overwhelmed by their minimal pedagogical skills regarding teaching students with disabilities in an inclusive setting. These developments have made it essential to create paths for preservice teachers to develop the skills necessary to prepare content for and disseminate content to diverse groups of students with disabilities. It is important to note that in the literature, many preservice teachers have been found to possess very little training and experience of working with students with varied disabilities (e.g., moderate to severe disabilities). Equally important is the fact that in the literature, rural school districts experience consistent problems in the delivery of special education services due to staffing and retention issues (US Department of Education, 2015). Furthermore, special-education teacher attrition rates continue to climb and have been attributed to mismatches between preservice candidates' preparation (and the efficacy of their present performance), and actual working conditions that they face once they become full-time teachers (Whittaker, 2001). In addition, there continues to be an ongoing debate regarding the appropriateness and effectiveness of inclusion (McLeskey, Waldron, Spooner, & Algozzine, 2014) and the effectiveness of co-teaching and other inclusive instructional models. These realities only serve to highlight the complexity of ensuring that teachers understand their role in

realizing the benefits of inclusion for all students (McGhie-Richmond, Irvine, Loreman, Cizman, & Lupart, 2013).

The Interstate New Teacher Assessment and Support Consortium (InTASC) *Beginning Teacher Principles* highlight standards for beginning teacher licensure, starting with a common core of teaching knowledge, including knowledge and practices of inclusive education. The standards were developed to support new teachers. Preservice teachers in their final quarter of student teaching are only months away from the beginning stages of their initial teaching careers. The standards expect that teachers have adequate content knowledge in their areas of specialization, the appropriate knowledge and skills to teach the content knowledge effectively, and the skills, dispositions, and knowledge necessary to prepare students with and without disabilities (InTASC, 2001).

Purpose of the Study

There is not enough known about the contribution of preservice general education teachers to inclusion during student teaching. This study examines the role that their attitudes about inclusion play on their overall student teaching experiences in a rural setting. This study extends existing knowledge and informs rural preservice general education teacher preparation, practice, placement policies, and research. The embodiment of a case study approach is critical, as it examines rural preservice general education teachers' attitudes toward teaching in inclusive classrooms by bonding their experiences to the rural setting during their final quarter of student teaching. Student teaching experiences are undoubtedly punctuated by the lack of adequate special education services and the disproportionate representation of culturally and linguistically diverse students in special education, which have been recurring topics of concern in the field of special education magnified by rural special education researchers (Pennington, 2017). Rural

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school districts have a hard time attracting and retaining talented teachers, and students in rural school districts are, at times, poorly served by special education.

Localized to teachers in urban and suburban regions, much of existing special education self-efficacy research has not filtered down to rural special education. However, there are glaring differences in settings. Tschannen-Moran et al. (1998) stated that "a very confident rural sixth-grade teacher might shudder at the thought of teaching sixth graders in the city" (p. 228). This study takes into account the period of student teaching, which is significant because research has shown that teachers' self-efficacy beliefs typically are enhanced by their student teaching experiences; however, many recent studies have been conducted post student teaching, using mostly quantitative measures, in urban or suburban areas (Knoblauch & Chase, 2015).

Zee and Koomen (2016) refer to self-efficacy as teachers' self-referent judgments about their capability. Therefore, preservice teachers' understanding of inclusion aligns with their perceptions (Davis & Layton, 2011) about their capabilities to engage learners with special needs in the teaching and learning process. Notably, there is a difference between preservice teachers' abilities and capabilities. The former refers to being able to do something and can be tied to self-efficacy of present performance, while the latter addresses what may happen in the future (given training), linked to self-efficacy of learning. This understanding also underscores and includes essential contextual conditions unique to rural school districts and small teacher preparation programs.

This study relies on a case study approach to get an in-depth understanding of the phenomena under investigation within the rural school context. Yin (2018) highlights that to cover the complexity of a case; a case study must rely on multiple sources of evidence. The data collection process involves a demographic survey and classroom observations, to gather direct

evidence of behavior, as well as through open-ended semistructured interviews with general education preservice teachers in inclusive co-taught classrooms during clinical practice (also referred to as student teaching). Accordingly, this study relies on multiple sources of evidence, converging data in a triangulated manner as discussed in chapter three. Semistructured interviews, for instance, are flexible by nature and allow the researcher dig deeper into the perspectives of the participant interviewees.

Research Questions

The focus of the research questions is the perceptions of general education student teacher candidates of inclusion, self-efficacy, and attitude toward teaching in inclusive classrooms in rural school districts. The following research questions guide the study:

RQ1: How do general education preservice teachers view their role in inclusive classrooms?

RQ2: How do general education preservice teachers understand inclusion related to self-efficacy to teach in rural inclusive classrooms?

RQ3: How do the impact of coursework and clinical practice in inclusive environments in a rural school district inform general education preservice candidates' attitude toward teaching in inclusive classrooms?

RQ4: How might contextual factors explain the development of general education preservice teacher self-efficacy?

Significance of the Study

The immediate goal of this study is to bring increased awareness of preservice general education teachers' role in inclusion. This research will fill the gap of limited data from recent research concerning preservice teachers' understanding of inclusion as related to their self-efficacy and attitude toward teaching in inclusive classrooms. Additionally, the study focuses on

developing generalizations of existing theory, rather than deriving statistical measures. The study

results can help stakeholders develop a greater understanding of the perceptions of preservice

teachers as an indicator of their performance within inclusive classrooms, to tailor initial teacher

education programs and initial teacher mentoring. Further, the results of the study may provide

educators insight into how preservice teachers value their contributions toward developing

inclusive classrooms.

Definition of Terms

- *Self-efficacy:* Bandura (1997, p. 3) defines self-efficacy as "beliefs in one's capabilities to organize and execute the course of actions required to produce goal attainments."

- *Inclusive education:* IDEA (2004) refers to inclusive education as a philosophy that mandates that students with disabilities have the right to be educated together with their peers without disabilities to the greatest extent possible using the principle of the least restrictive environment.

- *Preservice general education teacher candidate:* Undergraduate student with senior status in his/her final quarter of teacher preparation receiving training to become a general education teacher at a public or private school (Cooper, Kurtts, Baber, & Vallecorsa, 2008).

- *Semistructured interview*: An interview in which open-ended questions, their sequence, and detailed information to be gathered are all predetermined and used to promote consistency across interviewees.

Assumptions, Delimitations, and Limitations

    Assumptions. For this study, the researcher assumes the following:

- Preservice teacher candidates who participate in the semistructured interviews will provide honest reporting of their perceptions regarding the challenges of teaching students with learning disabilities.

- Preservice teacher candidates have some background knowledge of InTASC principles for beginning teachers.

- Preservice teacher candidates' self-efficacy belief of their capacity toward inclusion is an essential factor that helps determine the quality of inclusive education.

- Preservice teacher candidates can recall specifics regarding their preparation coursework related to teaching students with learning disabilities if and where applicable.

Delimitations. The following boundaries will delimit the study:

- The study will be limited to public school districts in rural southeastern Washington and one school in rural northeastern Oregon.

- The study will be limited to preservice general education teachers who are in student teaching, during their full-time student teaching quarter.

Limitations. For this study, the researcher recognizes that there are certain limitations inherent in conducting this case study. The boundaries are as follows:

- The participants in this case study are volunteers, selected from a convenience sample and not randomly selected.

- Preservice teacher candidates may be impacted by their level and type of interaction with their students and mentor teacher.

- Time is an essential limitation of this study, since the survey must be completed within a specific interval (during student teaching). Personal experiences and biases of participants may be evident in their semistructured interview question responses.

Summary

The purpose of this study is to explore the role of preservice teachers in the practice of inclusion in a rural school district during student teaching. Overall, the study results will provide a better understanding of preservice teachers' self-efficacy about working with students with disabilities in rural classrooms. Inclusive education brings diversity to classrooms, but the demands of including all students can also become taxing for in-service teachers. Preservice teachers, during student teaching, experience the requirements concomitant to everyday teaching tasks. The expereinces are important in a teacher's development because teaching is a complicated job that requires multifaceted reasoning skills and adequate training. The growing use of inclusive classrooms and co-teaching arrangements has led to many teachers having to change their teaching processes (Givens, 2010). Moreover, preservice teachers in the inclusive classrooms must be confident that they can learn how to engage students of diverse abilities in inclusive classes and can successfully execute what they have learned. In the literature, teachers with higher levels of self-efficacy reported that they were more persistent with their students (Allinder, 1994; Gibson & Dembo, 1984).

The following chapters provide a review of the literature and review of the research method. Data analysis and results are also presented, along with a discussion of the research conclusions and recommendations. Chapter 2 reviews peer-reviewed journal articles, periodicals, reports, bulletins, printed books, dissertations, and other seminal works written by researchers in

the fields of inclusive classrooms, self-efficacy, rural education, general education, and special education. Chapter 3 outlines the research mythology used and Chapter 4 provides and overview of the data analysis and research results from surveys, observations, and interviews. Finally, Chapter 5 discusses the findings and recommendations.

Chapter 2: Review of the Literature

When preservice general education teachers enter the workforce, many are asked to perform their duties in inclusive environments. Preservice general education teachers typically have little or no experience working with students with special needs in inclusive settings (Casarez et al., 2013). Students with disabilities in the inclusive classroom require assistance in many forms, such as curriculum modifications, accommodation, and positive behavior management to experience academic success. Courtade, Shipman, and Williams (2017) mourn state policies that are frequently designed to support needs of students and teachers in urban areas over rural, remote, and small towns, creating gaps in teacher training and professional development. Students with autism spectrum disorder (ASD), for instance, can be challenging for teachers across the range of experience and training, especially in rural contexts (Pennington, 2017). Further, it is important to note that 43% of school districts in the US are in rural areas, serving approximately 20% of all public-school students (Johnson, Showalter, Klein, & Lester, 2014). Consequently, when compared to their urban peers, students in rural educational settings have displayed lower academic success (Mason et al., 2017).

Most Washington state rural school districts, for instance, are small and serve concentrations of children from low-income families (Abell, Collins, Kleinert, & Pennington, 2014). Significantly, teaching is a complicated profession that requires multifaceted reasoning, skills, and adequate training. Preservice teachers in inclusive classrooms need confidence that they can successfully engage students with various disabilities and cultivate universally designed educational spaces. Rural preservice teachers' attitudes toward students with disabilities and their understanding of inclusion are tied to their perceptions about their capabilities to engage the

teaching and learning process in inclusive classrooms (Davis & Layton, 2011) during student teaching.

Study Topic

The purpose of this study is to investigate rural preservice general education teachers' attitudes toward teaching in inclusive classrooms and their beliefs about their ability to teach students with varied disabilities. This research will fill the gap of limited data from recent studies concerning preservice teachers' understanding of inclusive classrooms in the rural context. Research Topic: *Rural preservice teachers' perceptions of inclusion: A study of candidates' self-efficacy and attitude toward teaching in inclusive classrooms.*

Context

Before enactment of the Education for All Children Act in the 1970s, public schools routinely excluded students with special needs and denied them access to free public education (Dudley-Marling & Burns, 2013). Since then, the situation has changed, as federal law (Educating All Students Act, 2015; Individuals with Disabilities Education Act, 2004; No Child Left Behind Act, 2001) mandates minimal exclusivity. Today there exists a broader acceptance of the inclusion of students with disabilities in general education classes. Notably, that inclusion does not appear in The Individuals with Disabilities Education Act; instead, the language in federal law requires school districts educate students in the least restrictive environment to the maximum extent possible (IDEA, 2004). Thus, school districts have relied on the use of inclusive classrooms with and without co-teaching arrangements (Givens, 2010) to meet this mandate.

This study defines an inclusive classroom as a general education classroom where students with and without disabilities engage collaboratively in teaching and learning processes

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(Kavale, 2005). Fueled by litigation over the years, the practice of including all students regardless of disability in the least restrictive environment has also been expanding. Nevertheless, the collective response of educational policy planners has been to move in the direction of various inclusion models (full or partial) that involve an emphasis on co-teaching, universal design, and differentiated instruction in the general education classroom (Savolainen, Engelbrecht, Nel, & Malinen, 2012). While inclusion directly influences the special education and general education classroom teacher, the lack of substantial studies in the literature indicates minimal empirical attention to the attitude, preparation, and skill development of rural general education preservice teachers toward the practice of inclusion. Further, the implications of this growing acceptance and use of inclusive learning environments and co-teaching classroom arrangements have meant many current rural in-service teachers have had to adjust how they teach (Givens, 2010), at times with very little preparation and ongoing support.

Significance

This study extends the existing knowledge base and informs rural preservice general education teacher preparation and practice, policy, and research. Qualitatively, the study follows a case study design to understand the context and variables present in preservice teacher self-efficacy. The researcher examines variables influencing rural preservice teacher self-efficacy in inclusive classrooms related to teacher competency standards developed by InTASC. As a result, the study also supports existing research on preservice teacher self-efficacy in a rural context by employing often-underutilized qualitative research methods. The results of the case study will also help develop future longitudinal and qualitative research in similar regard.

Problem Statement

The problem on which this study focuses occurs as preservice teachers enter the full-time workforce, many are confronted with mandates to include students with various learning, physical, emotional, and behavioral needs in the general education classroom for the entire instructional day or a part of it, leaving many teachers overwhelmed and dissatisfied. Further, the literature suggests in-service teachers in rural communities, which usually serve concentrations of low-income students, are often isolated and asked to fulfill a myriad of roles for which they are largely unprepared (Hill, 2015). According to reports, an estimated 30–40% of new teachers are likely to exit the profession in the first three years (Lee, Patterson, & Vega, 2011). A report compiled by the Learning Policy Institute (Sutcher, Darling-Hammond, & Carver-Thomas, 2016) estimates teacher attrition rates more than 8%–10% nationwide every year. Sutcher et al. (2016) suggest teacher attrition rates contribute significantly to the teacher shortage currently experienced around the country. Moreover, teacher shortages in rural school districts are a chronic problem (Hill, 2015). According to national data trends, "teachers with little preparation tend to leave at rates two to three times as high as those who have had a comprehensive preparation before they enter" (Sutcher et al., 2016, p. 4).

Casarez et al. (2013) determined that the beliefs and actions of preservice teachers at many teacher preparation programs reveal limited exposure to inclusion (and little or no experience working with students with special needs). Thus, preservice candidates may have a limited understanding of inclusive classrooms, and in-service general education teachers in inclusive classrooms have reported exhibiting similar actions (McLaughlin, 2015; Skaalvik & Skaalvik, 2014). By identifying and studying attitudes, policymakers and school administrators may better understand general education preservice teachers' mindsets about teaching children

with disabilities in inclusive settings and attempt to change the consequences of negative attitudes, such as new teacher attrition (Aldrich, 2000). Taylor and Ringlaben (2012) hypothesize that teachers with more positive attitudes toward inclusion are more likely to take proactive steps, such as modifying instructions to meet individual learner needs, and espouse positive views toward this type of integration. To put it another way, in the literature, in-service general education teachers with higher self-efficacy tend to be more patient and recommend fewer students with difficulties for referrals (Podell & Soodak, 1993); however, teachers without high self-efficacy do the opposite, and report more classroom disturbances and referrals (Podell & Soodak, 1993). These teachers also report higher levels of exhaustion, particularly emotional exhaustion (Dicke et al., 2014), which often results in burnout early into their teaching career (Keller, Chang, Becker, Goetz, & Frenzel, 2014). Thus, this study aims to gather information and investigate teacher attitudes by assessing levels of self-efficacy of rural general education preservice teachers for students with special needs in inclusive classrooms during their final year of the teacher training program.

Organization

An extensive search of the literature was completed to compile relevant information for this study. The review will identify peer-reviewed journal articles, periodicals, reports, bulletins, printed books, dissertations, and other seminal works written by researchers in the fields of inclusive classrooms, self-efficacy, rural education, general education, and special education. The search parameters include keywords and phrases, such as self-efficacy, preservice teacher preparation, collective efficacy, rural inclusive classrooms, rural special education, teacher self-efficacy, and efficacy in co-teaching. The review of research methodologies follows the

development of a conceptual framework and analysis of the research literature. Additionally, the researcher scrutinized critical issues of research, as well as limitations of existing studies.

Theoretical Statement

The theory of social learning proposed by Miller and Dollard (as cited in Bandura, 1997) rejects notions of behaviorist associationism. Miller and Dollard (as cited in Bandura, 1979) posit that if motivated to learn behavior, humans will learn through observation and imitation. Guided by the tenets of this learning theory, some 30 years later, Bandura revisited and investigated ways to account for the difficulties of Miller and Dollard's early ideas. The theoretical framework of this study centers on Bandura's (1986) revisions of the social learning model that advanced a view of human functioning considering the central role of cognitive, self-reflective, and self-regulatory practices. Bandura (1986) believed human functioning is the product of associations among personal, behavioral, and environmental influences. Unlike other behaviorist theories (e.g., Pavlov and Skinner) Bandura (1986) emphasizes self-processing—a trait often neglected by behaviorists who ascribe human functioning to external forces or learning as a product of conditioning.

Additionally, unlike other theories of human functioning, Bandura's social cognitive theory emphasizes the influence of tasks teachers engage in. Therefore, the impact of evolutionary pressures can change human development and "in turn, create new selection pressures for the evolution of specialized biological systems for functional consciousness, thought, language, and symbolic communication" (Bandura, 1986, p. 683). Bandura (1986) further asserted that social learning resulted from this interplay between cognitive and environmental factors.

As a result of further developments in social learning theory, Bandura (1989) argued that learning is most likely to occur as a result of close identification between two entities—the observer and the model—which, when positioned center stage, highlights the importance of learning from experiences and modeling. For this purpose, Bandura (1979) asserted that there are several processes or steps involved in observational learning developed through modeling: first, a person must pay attention to the model; second, they must remember the observed behavior; third, they must be able to repeat the observed behavior; and finally, that person is intrinsically motivated to imitate the behavior. One implication of this process–which speaks entirely to this study is that teachers and students can model desired behaviors; that is, the theory underscores the role of intrinsic motivation on how learning occurs. These ideas set the groundwork for the self-efficacy beliefs at the core of Bandura's social cognitive theory. To summarize, self-efficacy underscores the value of connection between the observer and the imitator, especially when the observer feels they can follow through with the imitated action (Bandura, 1988).

There is little ambiguity in the literature about what constitutes preservice teacher self-efficacy. Many researchers relate to Bandura's (1997, p. 391) definition: "self-efficacy refers to an individual's judgments of his or her capabilities to organize and execute courses of action required to attain designated types of performances." In other words, self-efficacy refers to a person's beliefs about their capabilities to carry out a course of action (Klassen et al., 2011; Pajares, 2002). Social cognitive theory posits that people can carry out human activity, or deliberate pursuit of work, and such motivation operates in the process of influence between personal (e.g., cognitive and affective), environmental, and behavioral factors (Bandura, 1977). As a result, four sources inform beliefs in social cognitive theory: performance accomplishments, when one experiences mastery of a task (considered the most powerful of the four sources);

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vicarious experiences, which include observations of others completing threatening or challenging activities; verbal persuasion, such as coaching and other forms of encouragement; and emotional arousal, such as perceived success influencing one's affective state, including anxiety and vulnerability (Bandura, 1977).

In *Self-Efficacy: Toward a Unifying Theory of Behavioral Change*, Bandura (1977) argued that although a person may know certain achievements result in desired outcomes, this information becomes virtually unusable when they lack the belief they can repeat these actions. According to Bandura (1977, p. 193), "Expectations of personal mastery affect both initiation and persistence of coping behavior. The strength of people's convictions in their effectiveness is likely to affect whether they will even try to cope with given situations." This statement elevates self-efficacy to a general ability to cope in various circumstances, as efficacy to perform a behavior or action aligned with one's belief in their ability.

Further, Bandura (1977) posited that personal self-efficacy beliefs are perhaps the most important cause of human behavior. In concert with his hypothesis, Bandura (1977, p. 346) positioned self-efficacy at the center of "behaviors, internal personal factors, and environmental influences [that] all operate as interlocking determinants of each other" to outline the variables or ingredients involved in cultivating self-efficacy. Gotshall and Stefanou (2011) agree and further argue that through the developmental process of self-efficacy, an individual makes evaluations of their ability to be effective. Indeed, "[i]t bears noting that self-efficacy beliefs are themselves critical determinants of how well knowledge and skill are acquired in the first place" (Pajares, 2002, para. 15). In the classroom setting, this refers to teachers' belief in their ability to engage students, even in stressful situations. An overlap in the definition for preservice teachers' self-efficacy only confirms the integral role self-efficacy plays in the teaching and learning process.

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This study may help those responsible for developing teacher preparation programs to recognize the importance of providing the necessary training and support to preservice general education teachers, as well as help school administrators identify the areas in which new in-service general education teachers need support.

Review of Research and Methodological Literature

The literature review offers an analysis of studies focused on preservice teacher self-efficacy. The study focused on three central themes in the literature: (1) mandate and nature of inclusive classrooms, (2) pre- and in-service teacher self-efficacy beliefs, and (3) factors that contribute to preservice teacher self-efficacy in rural settings. The review reveals a wealth of supporting studies on preservice and in-service teacher self-efficacy in varying contexts. However, the review also exposes gaps in the literature regarding precise definitions of the setting of studies and preservice teacher preparation programs, especially in rural communities.

Mandate of inclusive classrooms. This review uses the case of *Brown vs. Board of Education* (Warren, 1954) as a starting point for the development of action against exclusivity in education. It was only after the Supreme Court ruled the segregation of children based on color unconstitutional that activists and proponents of students with disabilities argued for their desegregation (Dudley-Marling & Burns, 2013). Subsequent parent activism and enactment of federal laws (ESSA, 2015; IDEA, 2004; NCLB, 2001; EAHC, 1975) mandated the inclusion of students with disabilities in general education classrooms. Admittedly, the enactment of statutes and mandates from 1975 to the present, initially created unease and some confusion in general education classrooms. Dudley-Marling and Burns (2013) cited incidences where teacher and parent groups resisted the inclusion of students with disabilities in the regular classroom. Even "school superintendents … concluded that it was worth the higher costs of educating students

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with intellectual disabilities in segregated schools or classrooms given the negative effect their presence would have on the learning of 'normal' children" (Dudley-Marling & Burns, 2013, p. 16). Currently, some in the charter school movement advance a watered-down version of this argument, posing a serious threat to the development of inclusive classrooms (Dudley-Marling & Burns, 2013).

As noted, federal laws (dating back several years) require school districts to place children and youth ages 3–21 in the least restrictive environment to the maximum extent possible. Around 1963, evidence of compliance with this mandate was evident in more school districts across the U.S. than ever before (Osgood, 2005). To accomplish this, many school districts employed inclusive classrooms and co-teaching arrangements (Givens, 2010), a trend that has continued over time. According to data provided by the National Center for Education Statistics (2016), by 2014–2015, the number of children and youth receiving services under IDEA was 6.6 million, or 13% of total public school enrollments, compared to 4.7 million or 11% of the total public school population by the end of 2005. Federal law in IDEA (2004, p. 31) mandates that:

> To the maximum extent appropriate, children with disabilities, including children in public or private institutions or other care facilities, are educated with children who are not disabled, and special classes, separate schooling, or other removal of children with disabilities from the regular educational environment occurs only when the nature or severity of the disability of a child is such that education in regular classes with the use of supplementary aids and services cannot be achieved satisfactorily.

Meeting the needs of all students has become the responsibility of every teacher (Savolainen et al., 2012). An inclusive classroom environment occurs in a general education

classroom where students with and without disabilities engage collaboratively in learning (Kavale, 2005). Over the years, the question of the extent to which children with disabilities are included in the regular classroom has remained contentious (McLeskey, 2014). Consequently, including all students regardless of disability in the least restrictive environment has not only been at the heart of special education legislation, but also litigation (Brownell, Sindelar, Kiely, & Danielson, 2010). Educational policymakers and school building administrators were not the only ones assessing the impact of inclusion. According to Osgood (2005), between 1930 and 1960, the number of students recommended for special education increased sharply due to an increase in disability research and litigation (Osgood, 2005).

Nature of inclusive classrooms. Advocates of inclusion argue that at the most basic level, early integration promotes a sense of belonging and helps students with disabilities feel valued and included (Terzi, 2014; Theoharris, 2009). These arguments focus on the moral and ethical nature of educating students with disabilities in the general education classroom. Moreover, inclusion has been linked in the literature to better social behavior among exceptional students as a result of higher expectations and increased acceptance of students with disabilities (Chung & Carter, 2013; Hochman, Carter, Bottema-Beutel, Harvey, & Gustafson, 2015; Spooner & Browder, 2015). The research shows that both special needs and regular students experience gains in inclusive classrooms (Gupta, Henninger IV, & Vinh, 2014; Ruscitti, Thomas, & Bentley, 2017). When fully integrated into the regular education classroom, special needs students experience social gains, while regular students develop an understanding and appreciation of differences in people and abilities. Further, students with disabilities develop adaptive skills and acquire general knowledge (Gupta et al., 2014). Consequently, students with

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disabilities record positive gains across developmental domains (Banda, Hart, & Liu-Gitz, 2010; Gupta et al., 2014; Holahan & Costenbader, 2000) in inclusive classrooms.

However, some researchers have also highlighted what they believe are inherent adverse consequences to some students with disabilities in the regular education classroom. Some of these include negative peer interactions, such as bullying (Haegele & Sutherland, 2015), social isolation (Goodwin & Watkinson, 2000), and administrators and teachers who do not fully implement inclusive practices according to evidence-based guidelines (Kurth, Morningstar, & Kozleski, 2014). In this vein, O'Rourke (2014) contend that over the years, advancement of the inclusive model of education has been hampered by teacher buy-in. Furthermore, Scruggs and Mastropieri (as cited in O'Rourke, 2014) also claim that buy-in has been slow because many teachers think of inclusion from a deficit model. The deficit model over-analyzes practical differences between students, instead of focusing on the benefits of having exceptional learners in the classroom.

Moreover, some in the teaching and research community have been vociferous opponents of inclusive practices in schools. O'Rourke (2014, p. 12) noted that "criticism against inclusion is that as an approach inclusion has not proved itself, and so there is no reason for students with additional needs to move from more segregated special education settings." Brantlinger (as cited in Allan, 2013) argued that research in inclusive education is ideological and therefore contributes to a dangerous practice where researchers and policymakers who advance inclusion as a model are ignorant of its ideological roots. The research into the integration of students with disabilities has tended to have a one-directional upscaling focus. Florian (2014) suggested that inclusive education has been championed as promising but has not lived up to its promises. Similarly, Connor (2013, p. 494) referred to inclusion as a "subconscious monopoly held by

special education over the knowledge base of teacher education [which] affects school efforts" to illustrate the negatives of the institutionalization of special education. Further, Connor (2013) contended that inclusion is harmful to individual students who fall far short of the equality of opportunity assumed under federal law.

Notwithstanding these criticisms, many have made long-standing moral arguments in favor of inclusive education tied to broader discussions of social justice and equity. Earlier researchers such as Theoharris (2009) advanced the need to challenge exclusion through inclusive education, and Frattura and Capper (2007) urged teachers and administrators to see the need for a more equitable system of education through constant reflection on the state of schools. Fullan (2003) advanced building ethical schools that promote social justice through (among other things) inclusive learning environments. Recently, researchers (Liasidou, 2012; Norwich, 2013; Reindal, 2010; Terzi, 2014) have argued to reframe inclusive education as value education that helps the school system meet its societal imperative. Nevertheless, putting moral and ethical arguments aside, Sharpe (1994) admitted that while attitudes toward students with disabilities in the regular classroom have garnered more public support over the years, research on the issue has not. Khan (2012) opines that increasing advocacy for inclusion has limited recent evidence of the overwhelmingly successful implementation of inclusive classroom environments.

The nature of inclusive classrooms requires teachers to meet the academic differences of all students while keeping pace with the demands of state testing and the curriculum. These differences may vary from extremely low to extremely high educational and developmental abilities, and require more teachers trained in instructional methods such as differentiation, multi-tiered supports, and assessment modifications. For instance, NCLB (2001) mandated performance-based assessments for both general and special education students. This mandate

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meant general education and special education teachers continuously engage in setting goals and evaluating the progress of students with and without special needs, often resulting in extra work.

Research studies conducted on the academic achievement of students with disabilities in inclusive environments have yielded mixed results. Holloway (2001) noted that differences in academic performance among students with mild learning disabilities in inclusive classrooms were not significant when compared to students with mild learning disabilities in non-inclusive classrooms. Waldron and McLesky's (1998) earlier research on differences of students with mild learning disabilities in inclusive and non-inclusive classrooms revealed marginal gains in academic achievements. Recent research has yielded similar results. For instance, Green, Terry, and Gallagher (2014) investigated the progress in language and literacy skills among children with disabilities in inclusive early reading first classrooms. The authors' results showed gains by children with disabilities who made improvements by mirroring the progress of their typical peers; however, individually, they did not catch up to the achievement of their typical peers.

Moreover, despite the increasing prevalence of students with disabilities in general education classrooms, programming for students with multiple disabilities and emotional and behavioral disabilities in inclusive classes over the years has made little progress (McLeskey, Landers, Williamson, & Hoppey, 2012). Still, several supporters and researchers advocate the use of full inclusion with co-teaching for students with learning disabilities, multiple disabilities, and emotional and behavioral disabilities in the general education classroom (Zigmond, Kloo, & Volonino 2009). Full inclusion remains controversial because it speaks to the integration of special needs students, regardless of severity, in the general education classroom at all times.

Rural inclusion experiences. In the literature, definitions of "rural" center on population density and distance from urban areas. The US Census Bureau (2010) define a rural community

as an area that is not a city, with a population less than 50,000 (and more than 2,500) in a single or cluster of towns. Notably, in this study, rural school districts and small school districts outside urban areas are not the same. Stern (1994) contends that there is no single rural school district type. The current study defines a rural school district as a school district in a federally designated rural community. According to data from the US Department of Education, National Center for Education Statistics (NCES, 2006), the site of this research is identified as rural-distant (urban-centric locale code 42), which is defined as a rural territory that is more than 5 miles but less than or equal to 25 miles from an urbanized area, as well as rural territory that is more than 2.5 miles but less than or equal to 10 miles from an urban cluster. The study takes place in a rural community in proximity to a small town where preservice teachers are enrolled in a teacher preparation program during student teaching. The closest populated area to the research site classifies as a town-distant territory (urban-centric locale code 32).

Sindelar et al. (2018, pp. 13–14) note the US Census definition of rural falls short of understanding what it means to live and teach in a rural community: "A school located in a town of 1,500 people just outside an urban center faces substantially different challenges in recruiting teachers than a school consolidated from two small towns of less than 1,000 people situated 125 miles from that same city." Additionally, Sullivan (2010) notes that rural schools are smaller than many urban schools and less likely to provide bilingual, magnet, and job placement programs compared to urban and suburban school districts.

In their study of rural teacher's perceptions of inclusion, Boyer and Bandy (1997) highlighted philosophical and practical difficulties in the inclusionary experiences between urban and suburban teachers, such as knowledge of disabilities and the pre-referral and referral processes. In general, schools serve communities by providing safety nets for students with

disabilities, but many families in rural areas have difficulty accessing necessary services. For example, when compared to their peers in urban areas, children with ASD in rural communities are more likely diagnosed at later ages and have difficulty receiving specialized medical care (Murphy & Ruble, 2012). Moreover, the challenges for teacher preparation programs in rural districts are many. Teacher preparation programs in rural communities are not widespread. They are usually housed in small liberal arts colleges that do not attract diverse candidates and faculty. Johnson (2015) states that rural school districts typically lack strong professional support and induction programs for new in-service teachers and have problems filling critical vacancies. Shortages of teachers with specific training in special education, for instance, (such as early childhood special education) has been well documented (Dunst, Trivette, & Hamby, 2010; US Department of Education, 2016). Classroom observation studies indicate that students with disabilities do not always receive regular services (Johnson, 2015).

Some researchers in the literature point the finger at teacher preparation programs for failing to prepare rural preservice general education teachers to work with students with disabilities in rural schools (Mukeredzi, 2016). Green (2009) discusses the error of preservice teachers' preparation programs not focusing on the relationship between space (the rural environment) and subjectivity. The author postulates that the development of identity could be used to understand how teacher preparation programs have not adequately prepared preservice teachers for the realities of working in rural communities. The development of identity helps shape preservice teachers for the reality of working in rural communities by developing curriculum, pedagogy, and routinely adjusting programs to take in local knowledge. The local expertise informs rich rural educational experiences. Rural school districts must recruit more teachers and "to recruit rural teachers, administrators must target candidates with rural

backgrounds or with personal characteristics or educational experiences that predispose them to live in rural areas" (Harmon, 2001, para 3). Rooks-Ellis (2017) highlight geographical and other issues, such as low wages for teachers in these areas, as some of the barriers to training, recruiting, and retaining teachers in rural areas. In Washington State, rural school districts also face challenges in recruiting and retaining school administrators (Wood, Finch, & Mirecki, 2013).

According to 2015–2016 data released by Showalter, Johnson, Klein, and Hartman (2017), an average of 17% of state education funding goes to rural districts. Equally important, is to note that the makeup and level of remoteness of rural school districts vary across states. Showalter et al. (2017) indicate that Maine, Vermont, South Dakota, Montana, North Dakota, Mississippi, Oklahoma, North Carolina, New Hampshire, and Alabama are the leading states desperately in need of addressing deficiencies in rural education. Washington State does not lag far behind, with a disproportionate representation of culturally and linguistically diverse students in special education in rural communities, serving concentrations of children from low-income families. Disproportionate representation refers to the unequal representation of African American, Hispanic, Native American, or others who identify with historically underrepresented groups in special education (Morgan et al., 2015). However, over the past few years, concern over the disproportionate representation of culturally and linguistically diverse students has broadened to include a focus on the high levels of English Language Learners (ELLs) in categories of mild to moderate disabilities (Barrio & Combes, 2015; US Department of Education, 2016). Likewise, ELLs in rural communities are more likely to be identified as having learning disabilities as local rural school districts continue to battle this concern (Barrio, 2017; Barrio & Combes, 2015; US Department of Education, 2016).

Co-teaching models. Co-teaching as an inclusion model involves the use of more than one teacher in the classroom at the same time and has been advanced as a favorable model of integration (Saloviita & Takala, 2010). The presence of two or more teachers in the general education classroom eliminates the need for pulling students out of the regular classroom for instruction, and directly involves sharing instructional responsibilities between a general education teacher and a special education teacher. Some in the research date public acceptance and use of co-teaching as the preferred model of inclusion to the 1960s in the US (Cook & Friend, 1995; Saloviita & Takala, 2010; Zigmond et al., 2009). Specifically, Murawski and Swanson (2001) conducted a meta-analysis of co-teaching related studies and revealed that co-teaching appeared to be most successful where both teachers practiced effective teaching behaviors, such as differentiated instruction and collaborative planning, which maximized student engagement and learning.

Saloviita and Takala (2010) identified commonly used co-teaching delivery options (see Table 1 for a detailed comparison) employed in inclusive classrooms. These models include: (1) one teaches and one observes, supporting the instructional processes by making observations; (2) one teaches and one assists, endorsing the instructional process by helping individual students; (3) station teaching, where teachers divide the class and content equally, and teachers rotate to facilitate different groups; (4) parallel teaching, where teachers divide the class evenly into groups and cover the same information in their respective groups; (5) alternative teaching where one teacher takes responsibility for a large group, while the other delivers directed instruction to a smaller group of students; and, (6) team teaching, where both teachers provide the same content at the same time. Pancsofar and Petroff (2016) investigated teachers' experiences with co-teaching in inclusive classrooms.

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Table 1

Comparison of Co-teaching Methods

Method	Description	Advantages	Disadvantages
One teaches, one observes	One teacher instructs all the students while the second makes observations.	Supporting teacher can observe behavior not seen by the teacher directing the lesson.	Having a teacher walk around during the lesson may be distracting to some students. The role of the teacher observing is not always clearly defined.
One teaches, one assists	One teacher instructs all students while a second provides additional support for those who need it. Students with and without disabilities can receive assistance on challenging material.	Students receive individual help in a timely manner.	Through the eyes of the students, one teacher has more control than the other. Students often relate to one person as the teacher and the other as a teacher's aide.
Station teaching	Students are divided into three separate groups with two groups working with one of the two teachers and the third working independently.	Fewer discipline problems occur because students are engaged in active, hands on learning. Students with disabilities greatly benefit when this is properly structured.	One or more groups must work independently of the teacher. All materials must be prepared and organized in advance. Requires a lot of preplanning.

Method	Description	Advantages	Disadvantages
Parallel teaching	Teachers plan lessons together before splitting students in two groups, and then teach the same lesson to these small groups.	It allows teachers to work with smaller groups.	Both teachers need to be competent in the content, so the students will learn equally. The pace of the lesson must be the same, so they finish at the same time.
Alternative teaching	One teacher is responsible for teaching and the other is responsible for pre-teaching and re-teaching concepts to students who need additional support.	Working with small groups or with individuals helps meet the personal needs of students.	There must be adequate space. Noise level must be controlled if both teachers are working in the classroom.
Team teaching	Teachers provide instruction together in the same classroom and may take turns leading instruction or modeling student behavior.	Both teachers are actively involved in classroom organization and management.	Prepping takes a considerable amount of time. Teachers' roles need to be clearly defined for shared responsibility.

Note. Adapted from Vaughn, Schumm, & Arguelles, 1997; Friend & Cook, 1996.

Their study found that teachers most frequently implemented station teaching, where one teaches the rest of the class while the other provides individualized support to specific students with disabilities.

According to the research, most teachers believe co-teaching has the potential to be a viable model of instructional support for practical inclusion (McLeskey et al., 2010; Saloviita & Takala, 2010). However, many reported that they did not feel prepared to co-teach (Austin, 2001). Some preservice teachers may find themselves working in co-teaching environments (Pancsofar & Petroff, 2013) starting at student teaching. Several studies focus on describing co-teaching and designing evidence-based strategies to help improve the practice. For example, in

an earlier qualitative study, Kamens and Casale-Giannola (2004) investigated the experiences of special education and general education preservice student teachers in co-teaching during student teaching. They found that preservice teachers were more successful with co-teaching when they were actively planning with mentor teachers supports and were aware of the elements necessary for successful co-teaching. Pancsofar and Petroff (2013) obtained similar results when investigating the role of preservice and in-service professional development opportunities regarding co-teaching and teacher confidence, interests, and attitudes regarding co-teaching with general education and special education teachers.

Only a small number of studies have focused on the role of co-teaching of students with exceptional needs in a way designed to focus on academic, executive functioning, and social development (Friend, Cook, Hurley-Chamberlain, & Shamberger, 2010). The application of various co-teaching approaches further, and lack of clear understanding of co-teacher roles further complicates the matter. Pancsofar and Petroff (2016, p. 324) explained, that "structural aspects of co-teaching (multiple years with co-teacher, time spent daily with co-teacher, number of current co-teachers), teacher attitudes, and professional development opportunities (preservice and in-service) were associated with the use of different approaches to co-teaching." In short, every student teachers' co-teaching experience may vary due to multiple factors, such as time spent with a mentor teacher, state of professional relationship developed with mentor teachers, co-teaching model used, and level of shared instructional planning.

Differentiated instruction. Another component of inclusion in teaching and learning is differentiated instruction. According to McTighe and Brown (2005), educators need to meet standards-based imperatives while also addressing the individual strengths and needs of diverse learners in the classroom. By maximizing students' success through differentiated instruction,

teachers in inclusive classrooms need to develop instructional activities that are responsive to all learners from the outset (Morgan, 2014). According to Tomlinson (2014), to be successful at differentiated instruction teachers must render varied approaches to content (what the students are going to learn), process (how students engage the content), and product (how students demonstrate learning). To work effectively differentiated instructional planning must be intentional, which requires new teachers to negotiate their time effectively without becoming overwhelmed by too much work. Beginning teachers contending with diverse students' needs in the general education classroom often find the experience frustrating, messy and difficult to navigate (McKay, 2016).

Teacher self-efficacy beliefs. According to Aldrich (2000), teachers' experiences, personal knowledge, self-efficacy beliefs, and attitudes have some bearing on their perceptions about their ability to teach students. Bandura (1997) posits that this understanding of our self-efficacy beliefs contributes to personal and academic development. Studies suggest that while most general education teachers claim to support inclusion; many do not feel comfortable having students with disability diagnoses in their classrooms (de Boer, Pijl, & Minnaert 2011). Numerous research studies are investigating the self-efficacy of preservice and in-service teachers yielding near similar results. For instance, Baumgartner (2010) examined how to teach self-efficacy to elementary teachers by focusing on how preservice preparation courses for elementary teachers of science can provide opportunities to build pedagogical content knowledge. The study was just one of many to confirm that preservice teacher training courses have a positive impact on teacher self-efficacy in inclusive classrooms.

Further, there are a substantial number of subject matter and content-specific self-efficacy studies in the literature. Velthuis, Fisser, and Pieters (2017) investigated preservice teachers'

self-efficacy for teaching science within the teacher-training program. The study involved 290 participants in a teacher preparation program from two different universities in the Netherlands. Based on their results, the investigators concluded that science teaching self-efficacy of preservice teachers was higher during the last years of their program than the beginning. The data revealed two sources of higher levels of self-efficacy: higher levels of self-rated subject matter knowledge and science teaching experience in primary schools. Lemon and Garvis (2016) investigated preservice teacher self-efficacy in digital technology by studying their levels of engagement and confidence in learning and teaching with technology. Their results revealed a broad range of perceived competence using the teacher self-efficacy scale to assess preservice teachers' use of digital technology. The frequency of studies to examine efficacy to teach content areas significantly underscores the acceptance of teacher self-efficacy as an essential component of teacher preparedness that influences teacher attitude toward inclusion (Kim, 2011).

Teacher expectation and attitudes. In-Service teacher self-efficacy studies populate most research in the literature. These studies revealed that personal experiences with people who have disabilities (McKay, 2016) affect teachers' attitudes toward inclusive classrooms. The instructional climate and nature of these experiences was directly related to the teacher's attitudes (Richardson, Karabenick, & Watt, 2014). Further, investigations revealed that in-service teachers with high self-efficacy about teaching in inclusive classrooms exhibit positive attitudes and report higher job satisfaction (Richardson et al., 2014; Tschannen-Moran & Woolfolk Hoy, 2001). Alternatively, in-service teachers with low self-efficacy reported greater challenges in teaching, early burnout, and lower levels of job satisfaction (Betoret, 2016; Tschannen-Moran & Woolfolk Hoy, 2001). Skaalvik and Skaalvik (2014) investigated the relationship between teacher attitudes and burnout, and whether individual teacher efficacy was

distinguishable from collective efficacy, by administering the Norwegian Teacher Self-Efficacy Scale to 246 elementary and middle school teachers in urban and rural regions of Norway. Their study revealed a high correlation between teacher self-efficacy and teacher burnout in urban and rural teachers.

Further, Berry (2010) utilized the quantitative approach to understand teacher attitudes toward inclusion. The 246 in-service teachers surveyed were required to rank many statements about teaching in the inclusive classroom. The results revealed a statistically positive correlation between high teacher self-efficacy for teaching students with learning disabilities and a positive attitude toward inclusion because teachers felt prepared and supported.

Nevertheless, earlier research has shown that once in the general education classroom, in-service teachers feel overwhelmed by having to respond to certain disability types more than others. For instance, in-service general education teachers mentioned the need to try new teaching strategies and behavior management techniques when serving students characterized as emotional and behaviorally disturbed (Cassady, 2011). When Segall (2008) surveyed in-service teachers, the majority reported wanting to include students with ASD in the classroom, but they also reported being unprepared and feeling unsupported. Later research by Wilkerson (2012) confirmed similar findings. Importantly, teachers felt they were unprepared regarding how to include students with ASD in the classroom. McGregor and Campbell (as cited by Cassady, 2011) found that students on the autism spectrum were also challenging to teachers' classroom management techniques. Their reaction may be due to the nature of behaviors exhibited by children on the spectrum, which are at times unpredictable and challenging to deal with without the necessary training, ongoing professional development, and autism-related support services. The prevalence of students with autism continues to increase from one in 88 children in 2012 to

one in 65 children by 2014 (Center for Disease Control and Prevention, 2014). Both autism and emotional disabilities exhibit exceptional academic, social, and behavioral needs that require a high degree of support and specific training, which can overwhelm general education teachers (Cassady, 2011).

As shown, there is a significant link between teachers' attitudes and their instructional practices. According to Bandura (1993, p. 117):

There are three different levels at which perceived self-efficacy operates as an important contributor to academic development. Students' beliefs in their efficacy to regulate their own learning and to master academic activities determine their aspirations, level of motivation, and academic accomplishments. Teachers' beliefs in their personal efficacy to motivate and promote learning affect the types of learning environments they create and the level of academic progress their students achieve.

Teachers' knowledge and skills, together with their attitudes and beliefs, are integral to the development of successful inclusive classrooms (Beacham & Rouse, 2012; Casarez et al., 2013). A 2010 study investigating attitudes toward inclusion of 24 in-service teachers who worked in inclusion urban classrooms (Ben-Yehuda, Leyser, & Last, 2010) revealed that the most successful teachers knew students very well and had developed positive attitudes and beliefs, such as positive student-teacher relationships with their exceptional and diverse learners. Positive student-teacher relationships have a decisive impact on teacher self-efficacy. Martin, Sass, and Schmitt (2012) derived similar results about the student-teacher relationships when conducting a study that examined the relationship between teacher efficacy in student engagement and teacher attrition. Martin et al. (2012) collected survey data from 631 teachers working in elementary schools, middle schools, and high schools in three public school districts.

The investigation also revealed that compared to elementary school teachers, middle school and high school teachers reported lower efficacy in student engagement and less job satisfaction. As a result, they were more likely to depersonalize their experiences with their students.

Several preservice teacher self-efficacy studies in the research literature focused on preservice teacher preparation. Examining the nature, effect of, and value of teacher training is crucial to understanding preservice teacher attitudes, as the preservice teaching stage of an educational career provides an excellent opportunity to intervene and promote more positive views and beliefs about inclusion and inclusive classrooms (Woodcock, Hemmings, & Kay, 2012). Results from various studies indicated the existence of a relationship between teachers' positive attitudes toward inclusion and college coursework that included a practicum component (Fulk & Hirth, 1994). Kim (2011) examined numerous teacher-training models in use in American colleges. The results of the study revealed that preservice teachers from combined teacher preparation programs (co-taught general education and special education teacher preparation) had significantly more positive attitudes toward inclusion than peers from siloed special education and general education programs. Surprisingly, Kim's (2011) study also revealed that teacher education programs in inclusive education differ across the country concerning the number of required special education courses for general education teachers and the nature of the coursework. For example, many general education teacher preparation programs require completion of at least one class in special education or inclusion of exceptional learners, with varying amounts of classroom observation time in a lab school. Further, the research indicates positive relationships between training and attitude toward the inclusion of students with disabilities in the general education classroom.

Factors contributing to preservice teacher self-efficacy. As has been shown, teacher self-efficacy is a construct that shapes teacher effectiveness and student outcomes. With increased emphasis on student achievement in schools, preservice teachers need to feel confident in their ability to teach all the students in the general education classroom during student teaching. During student teaching, the preservice teacher assumes control of the instructional focus of the general education class. The general education class includes students with various learning and behavioral disabilities. Bandura (1997) asserted that self-efficacy beliefs are most at play in early learning. Several studies in the literature show oscillations in levels of self-efficacy beliefs over time (Hoy & Woolfolk, 1990) and the factors contributing to preservice teacher self-efficacy.

Preservice teacher preparation. According to Bandura (1997), the development of cognitive competencies requires continued involvement in mastery of developing opportunities. While intellectual functioning requires more than merely understanding, when appropriately structured, well-crafted opportunities can provide the mastery experiences needed to build motivation (intrinsic interests) and a sense of cognitive efficacy when they are lacking. Bautista (2011) investigated comparisons between preservice teacher performance while in training and the actual classroom teaching that preservice teachers perform during their student teaching. The researcher's results highlighted vicarious experiences and other forms of modeling, including observations, as vital to preservice teachers' development of self-efficacy.

As noted previously, preservice teachers have little or no experience working with students with special needs (Casarez et al., 2013). Undoubtedly, increased levels of knowledge about special education students help preservice teachers become less anxious about including students with disabilities in their classrooms. Studies have shown that preservice teachers hold

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positive attitudes toward teaching students with disabilities (Han, Shin, & Ko, 2017; Lancaster & Bain, 2007). Likewise, preservice teachers increase their knowledge of students with disabilities from personal experiences and teacher preparation programs. However, there is a disconnect in the literature between teacher perceptions of training and the actual level of efficacy for inclusion once they begin working independently in the classroom. In the literature, the teachers' opinions of college preparations programs vary greatly. Consequently, while they hold favorable views of inclusion, many preservice general education teachers do not feel adequately prepared to meet the needs of students with disabilities in their classrooms (Bialka, 2017).

Therefore, to be successful in an inclusive classroom setting, preservice teachers require adequate training to feel confident about their ability to teach diverse learners. Kim's (2011) research revealed that the more special education coursework teachers had completed, the more positive their attitudes were toward inclusion. Likewise, the student teaching experience has also been considered important in establishing preservice teachers' beliefs and attitudes toward their teaching (Han et al., 2017). In a study of preservice teachers in Ghana, Nketsia and Saloviita (2013), results indicated that although all the participants had completed coursework in inclusive education, only one-third felt profound, or somewhat, prepared to teach children with special needs. However, there are limitations in their study compared to more extensive studies conducted in the US, such as a lack of statistical analysis.

Previous research conducted by Allday, Neilsen-Gatti, and Hudson (2013) reviewed college courses with coursework related to inclusion taken by preservice elementary teachers during their teacher preparation programs. The authors examined 109 elementary education bachelor's degree programs. The study identified the competencies deemed necessary for general education teachers' success in inclusive classrooms to be a basic knowledge of the characteristics

and needs of students with disabilities, the teacher's ability to differentiate instructional practices, classroom and behavior management skills, and collaboration among educators. According to the researchers:

> The results suggest that many teacher preparation programs provide instruction related to characteristics of disabilities and some form of classroom management; however, few programs offer courses specifically related to differentiation of instruction for students with disabilities or collaboration between general and special education teachers (Allday et al., 2013, p. 298).

Of the 109 programs reviewed, preservice elementary school teachers received a mean of 0.19 hours or less than 0.3% of college coursework on strategies for effective communication with special education teachers, and 6% of the universities studied required a course on collaboration (Allday et al., 2013).

Tangen and Beutel (2017) studied preservice teachers' self-efficacy about preparation. They found that preservice teachers had developed a good theoretical understanding of inclusive education through their college coursework. However, one limitation of the study was those surveyed had difficulty identifying their cultural selves (a primary variable) beyond a stereotypical norm of who is a classroom teacher. The study results also indicate preservice teachers' need for more time to develop their professional identities as inclusive educators. Overall, the literature documents that college preparation coursework and training positively affect the attitudes of preservice teachers toward inclusive education.

Student Teaching

Brown, Lee, and Collins (2015) conducted a mixed-method research project studying the effects of student teaching on the self-efficacy beliefs of 66 preservice teachers during their final

year of teacher preparation using a pre-post model. The results showed that preservice teacher participants reported high levels of self-efficacy in classroom management, with the lowest levels recorded in student engagement. Similar research has reported opposite results. Brown et al. (2015) concluded that the preservice teacher participants benefitted from the student teaching experience during the research study. Earlier research by McCray and McHatton (2011) investigated 77 elementary and 38 secondary education preservice teachers at the end of their program taking a required inclusion course for certification. The results showed positive attitude and perceptions toward inclusion of students with disabilities at the end of the course, with 97.3% of participants agreeing to include students with learning disabilities in the regular education classroom, and 92.1% accepting of students with hearing disabilities (McCray & McHatton, 2011).

Collective Self-efficacy

Bandura (1977) defines self-efficacy as belief in one's ability to organize and execute actions required to handle future situations. This idea also extends to the collective beliefs of teachers already discussed, with some teachers having a higher sense of collective self-efficacy than self-efficacy. Bandura (1997) highlighted that a collective efficacy–shared beliefs and abilities to organize and execute courses of action–can produce high-level outcomes. According to Richardson et al. (2014, p. 102), "[a] teacher's negative reactions to challenges that can lower self-efficacy may be offset by beliefs about colleague's collective capacity to successfully meet similar challenges."

There is broad agreement in the literature that self-efficacy is developmental and not constructed overnight nor from scratch (Bandura, 1977; Brígido, Borrachero, Bermejo, & Mellado, 2013). In qualitative research designed to study the sources of efficacy, Wang, Tan, Li,

Tan, and Lim (2017, p. 140) revealed the presence of "sources of information postulated by Albert Bandura (i.e., mastery experiences, verbal persuasion, vicarious experience, and physiological and emotional arousal)" were significant in explaining teachers' levels of efficacy; that is, their results supported Bandura's hypothesis. However, the authors concluded other non-psychological sources, such as "teachers' knowledge about students, rapport with students, and previous working experiences, also played significant roles in the creation of high teacher efficacy" (Wang et al., 2017, p. 140). Information for the study derived from surveys in a small sample of five high-efficacy teachers and four low-efficacy teachers in Singapore. While the sample was too small to generalize, the results confirmed what was already know from previous research; notably, that the attitudes and beliefs teachers form about their abilities to work with students with disabilities are formed during preservice, and are unlikely to change rapidly over their career, making preservice training crucial (Richardson et al., 2014). As a matter of good practice, during their course of study, attitudes and abilities of preservice teachers to teach in inclusive classrooms should be continuously evaluated. (Taylor & Ringlaben, 2012).

As shown, highly effective teachers are more successful in the inclusive classroom (Sze, 2009). According to Wang et al. (2017) mastery experiences are very influential in developing self-efficacy they are based on individuals' authentic experiences. Thus, teachers who perceive past performance as successful are more likely to become more efficacious in the future. Conversely, repeated negative experiences reduce self-efficacy. The variation brought about by positive or negative experiences is contextual for preservice teachers. Richardson et al. (2014, p. 108) explain that teachers' self-efficacy is dynamic and responsive to context, including the passage of time...the changing nature of teaching demands. Further, the authors also explained that societal expectations placed on teachers may influence changes in the level and growth of

self-efficacy during a teachers' career. Their conclusions were derived from an analysis of results from a longitudinal study of preservice teachers' self-efficacy during the practicum and cross-sectional study of practicing teachers' self-efficacy across career stages.

Although Bandura (1997) maintained that self-efficacy remains the same once established, there is little in the recent research to support this hypothesis (Richardson et al., 2014). Instead, research remains inconclusive about exactly how self-efficacy grows and changes over the period of an educator's career (Richardson et al., 2014; Tschennen-Moran et al., 1998).

Review of the Methodological Issues

The theory of self-efficacy suggests that people examine various sources of information related to their capability to perform a task and use that information to make their choice behavior (Bandura, 1997). Sharma et al. (2012) studied preservice teachers enrolled in teacher preparation programs in Canada, Australia, Hong Kong, and India. Data was collected and analyze data; a teacher efficacy for inclusion scale was used to measure teacher efficacy to implement inclusion practices. A shortened 18-item instrument was employed. The alpha coefficient for the total scale was 0.89. Alpha coefficients for the three factors ranged from 0.85 to 0.93. The levels demonstrated that teacher self-efficacy varied based on country and exposure to students with disabilities. Sharma et al. (2012) study employ a similar methodology to many other recent and past efficacy studies. Overall, participant self-reporting through surveys or efficacy scales makes up most of the research methodology. Further, most studies employed a self-reporting survey, case study, and pre-post investigations. This review revealed very few longitudinal studies and qualitative studies in different contexts.

In another study, Tangen and Beutel (2017) conducted a survey in which 46 ($n = 46$) of 292 Australian preservice teachers enrolled in an inclusive education course participated.

Through statistical correlations and inductive analysis, the researchers examined preservice teachers' self-perceptions as inclusive teachers, with a research framework based on the theory of possible selves. Kim (2011) employed an investigation into the influence of teacher preparation programs on preservice teachers' attitudes toward inclusion. A survey method was used to collect data from preservice teachers in 10 teacher-training programs, with responses from 110 preservice teachers analyzed according to the type of teacher training program.

In a study titled "Understanding the self-efficacy beliefs of preservice learning and behavioral specialists during their practicum, field-based, and student teaching semesters," Cahill (2016) surveyed 74 participants ($n = 74$) who were preservice education teachers in the Midwest in their student teaching semesters. The participants completed a 24-question online survey on their self-efficacy beliefs. After filling out a factor analysis of the study, three factors emerged–classroom management, instructional strategies, and student engagement–when working with children with special needs in either an academic or behavioral setting, and at various grade levels. Descriptive statistics, analysis of variance (ANOVA) tests, and post hoc tests were used to determine how self-efficacy beliefs differed among preservice special education teachers. Classroom management was the only variable found to be significantly different between groups. As previously noted, these studies were conducted using quantitative designs lacking rich narrative from the perspective of the teacher.

Synthesis of Research Findings

According to Tschannen-Moran and Woolfolk Hoy (2001), teacher efficacy involves judgment capabilities to bring about desired outcomes of student engagement and learning. Additionally, teacher self -efficacy also involves confidence that teachers can bring about high learner outcomes even among those students who may be difficult or unmotivated. Preservice

teachers' effectiveness also refers to their expectations that teaching can influence student learning, which correlates with Bandura's (1977) outcome expectation. Likewise, personal teaching efficacy extends to teachers' assessments of their teaching capability, which is indicative of Bandura's (1977) efficacy expectation.

Moreover, students can relate to the teachers' sense of efficacy in the classroom. According to Bandura (1997), problems in the classroom are likely to worsen if the teachers doubt, they can achieve much success with diverse learners. Teachers' awareness, their classroom management skills, and the ability to engage learners in inclusive environments are important indicators of the success of inclusive settings (Dibapile, 2012). Preservice teacher content knowledge is important and necessary, but not the only condition for good teaching (Ball, Hill, & Bass, 2005). According to Beacham and Rouse (2012), teachers' knowledge and skills, together with their attitudes and beliefs, are crucial in the development of inclusive practice. Teachers in rural areas face challenges and many general education teachers are often asked to teach in inclusive classrooms.

According to the research, variables that contribute to preservice teachers' attitudes toward inclusion of students with disabilities include coursework (Kim, 2011; McKim & Velez, 2017; Shadreck, 2012), teacher gender (Park, Chitiyo, & Choi, 2010), experience with disabilities (Park et al., 2010), type of disability (Forlin & Chambers, 2011), teacher self-efficacy (Ahsan, Sharma, & Deppeler, 2012), and the type of student teaching experiences (McKim & Velez, 2017). Further, many studies confirm the correlational between student achievement and teacher efficacy (Andreou & Rapti, 2010; Holzberger, Philipp, & Kunter, 2013). Davis and Layton (2011) concluded that teacher perceptions or attitudes might be the greatest predictor of successful inclusive classrooms.

The literature also suggests that contextual factors within a school or community impact teachers' self-efficacy and collective efficacy. Tschannen-Moran, Woolfolk Hoy, and Hoy (1998) explain that teachers' assessment of their ability to teach effectively in a certain context includes both an assessment of their skill compared to the tasks and their perceived access to resources and support. The US Census Bureau (2012) uses a combination of population density and land use factors to define rural communities. Teachers in rural areas and small town are less likely to get the same support as their urban peers. In earlier research, Coladarci (1992) related self-efficacy to teacher–student ratios. Akomolafe and Ogunmakin (2014) also confirm significant relationship between self-efficacy and job satisfaction. According to Ball et al. (as cited in Casarez et al., 2013), preservice teacher content knowledge is essential because it is a necessary, but not sufficient, condition for good teaching.

Critique of Previous Research

This literature review has focused on preservice teacher self-efficacy in inclusive classrooms by reviewing the nature of inclusive classrooms, social learning theory, and preservice teachers' perceptions of inclusion and methods of measuring preservice teacher self-efficacy. Overall, the patterns of research in the examined studies align with the conceptual framework of this study and social learning theory (Bandura, 1977). Most of the studies developed an understanding of preservice teacher self-efficacy by understanding social learning theory. As shown, the study of preservice teacher self-efficacy is crucial because, as Davis and Layton (2011) conclude, teacher perceptions or attitudes might be the most significant predictor of successful inclusive classrooms. However, most studies identified involved the researcher's use of quantitative measures. Additionally, according to Brousseau, Book, and Byers (cited by Buehl & Fives, 2009), in previous studies of teacher efficacy researchers perceived preservice

teachers to demonstrate higher, perhaps inflated, levels of efficacy that decreased with experience. Supporting Bandura (1997), Zundans-Fraser, and Lancaster (2012) reveal that teacher self-efficacy is developed by the mastery of experiences, physiological and emotional cues, vicarious experiences, and verbal persuasion.

The synthesis of past and recent research studies on inclusion and preservice teacher self-efficacy yielded very little information about the experiences of preservice teachers in rural co-taught classrooms. The role of special education knowledge and its relationship to the perception of preservice teachers within a rural school context using qualitative data gathering and analysis is still an area of needed research. Current studies on the effectiveness of inclusion have been partly inconclusive as the debate of full inclusion versus partial inclusion lingers (Hines, 2001).

Overall, most studies examined self-efficacy in the context of schools, teachers, and students, but few focused explicitly on inclusive educational practices. Small sample sizes have hampered many qualitative investigations, as well as a limited examination of changes and contexts. Elik, Wiener, and Corkum (2010) confirm that many research studies only focus on the attitudes, sentiments, and concerns of preservice teachers about the instruction of children with disabilities; however, more studies in different contexts with various research methods, such as longitudinal studies and qualitative methods, are warranted. According to Ruys, van Keer, and Aelterman (2010), few have explicitly focused on teachers' self-efficacy and its potential to affect and change the beliefs of preservice teachers in their ability to work with students with disabilities.

Summary

For over four decades, researchers have conducted studies to investigate the role of self-efficacy in education. As has been shown, Bandura's (1997) concept of self-efficacy has two

parts: belief about action and outcome, and a personal belief about one's own ability to cope with a task. The literature review revealed an increasing trend toward acceptance of inclusive education in the American and global educational systems (Khan, 2012). However, beginning teachers in rural school districts contending with diverse students' needs in the general education classroom often find the experience frustrating, messy, and difficult to navigate (McKay, 2016). Overall, the literature documents that college preparation coursework and training positively affect preservice teacher self-efficacy toward teaching in inclusive classrooms. Teaching is a complex profession and working with students with disabilities is demanding and challenging.

Research has shown that many in-service teachers feel overwhelmed by their minimal pedagogical skills of teaching students with disabilities in the inclusive setting (Casarez at al., 2013; Dawson, 2008; Kim, 2011). Many current in-service candidates had limited exposure to inclusive classrooms when they were preservice teachers. According to Whittaker (2001), teacher attrition rates in special education can be attributed to a mismatch between preservice candidate preparation (and efficacy of present performance) and actual working conditions faced upon becoming full-time teachers. In the research, teachers with higher levels of self-efficacy tended to be more organized, more persistent with students (Allinder, 1994; Gibson & Dembo, 1984), and more willing to implement new methods to engage students' diverse needs.

Overall, real teacher self-efficacy has been found to correlate to gains in student achievement positively. In general, research focusing on the role of self-efficacy employs the use of a statistical instrument, such an efficacy scale, which relies on a good conceptual analysis of the critical areas of focus but ignores qualitative measures. Measures of teacher self-efficacy have identified behavioral factors in the teaching and learning process teachers' control, such as classroom management or instruction. While several studies have identified teacher self-efficacy

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as dependent on subject matter, context, and the population, there is a need for more accurate measures of situations to predict teaching behavior (Riggs & Enochs, 1990).

Chapter 3 focuses on the methods and procedures used to conduct the current study. The purpose of the study, research questions, research design, instrumentation, population, and sample are presented. The researcher provides a rationale for the use of qualitative case study methodology. As noted in this literature review, future preservice teacher self-efficacy studies should consider different sample sizes, the use of qualitative methods, and standardized definitions of preservice teacher self-efficacy, within rural school contexts.

Chapter 3: Methodology

This chapter focuses on the methods and procedures that guided this study. The purpose of the study design, research questions, instrumentation, population, and sample data are presented. Data collection and analysis procedures, along with ethical considerations, are also discussed.

Purpose and Design of the Study

Teaching is a domain of practice in which study participants can hold high efficacy beliefs. The purpose of this qualitative single case study was to explore how preservice general education teachers perceive inclusion and the role of their attitudes and beliefs about inclusion play in their overall student teaching experiences in a rural setting. Historically, educational studies investigating preservice and in-service teacher efficacy have employed quantitative measures (Klassen et al., 2011). However, Bogdan and Biklen (2003, p. 3) state that qualitative research examines "how people such as teachers, principals, and students think and how they came to develop perspectives they hold." Scholz and Binder (2011, p. 25) opine that case study design is a legitimate study method when the "case is faceted or embedded in a conceptual grid." Specifically, this study's conceptual grid relies on established data collection methods to identify critical components in a context that helps the identification of self-efficacy.

The researcher played a key role in collecting and gathering the data as described by Bogdan and Biklen (2003). Qualitative data collection and analysis methods were selected because the study examined the factors that influence teacher beliefs to perform evidence-based practices within a specific context, which is neither a purely cognitive matter for the preservice teachers, nor a mere statistical measure. Davis and Layton (2011) regarded teacher self-efficacy beliefs as the most significant predictor of success in inclusive classrooms, coupled with

effective teacher preparation and good co-teaching practices among general education teachers, special education teachers, and service providers (a pedagogically diverse group of instructors).

As identified in the literature, the qualitative approach is a departure from most study methodologies that examine preservice teacher self-efficacy. Qualitative methods in research about in-service or preservice teachers' self-efficacy have often been overlooked and neglected, despite the need for them (Tschannen-Moran, Woolfolk Hoy & Hoy, 1998). Wyatt (2015) stated that despite the need for interviews and observational data to provide a thick and rich description of teaching experiences and beliefs. For instance, in their study on the impact of the school setting (rural, suburban, and urban) on the efficacy beliefs and attributions of preservice teachers, Knoblauch and Chase (2015) acknowledged the lack of observations, interviews, and reflective journaling as a limitation of their quantitative research.

Klenke (2016) highlighted that while quantitative methods are ideal for testing hypotheses, they are poorly suited to help understand the meanings the actors ascribe to events within a specific context. In agreement, Pfitzner-Eden (2016) opined that previous studies of teacher self-efficacy have usually included researchers analyzing statistical data by preservice teachers regarding factors that would influence and promote their sense of teaching efficacy. However, interviews and observations in qualitative research allow researchers to compare the experiences of different participants and therefore make conclusions about the relationships between personal variables and contextual/environmental variables.

By definition, a case study approach is empirical and best suited to applied problems studied in context (Wyatt, 2015). The case study approach involves the "process of careful reflection as new ideas are integrated into thinking, changes are made to practice, and the consequences of that change are evaluated" (Harland, 2014, p.1116). Bandura's (1997) notion of

triadic reciprocal determinism suggests behavioral, personal, and environmental factors work together; yet, the decision of which element takes a lead role is situational and based on the context. As a result, the case study approach was selected in this research study because behavioral, personal, and environmental factors identified as affecting preservice teacher self-efficacy to teach students with disabilities in inclusive classrooms. The study design helped understand which factor took the leading role in determining rural preservice teacher self-efficacy. Further, Stake (2013) recognized the qualitative case study approach as interpretive, empirical and field-oriented studies that orient researchers toward objects and activities within a unique set of contexts, working to understand individual perceptions.

The researcher considered multiple qualitative research approaches before deciding that the case study approach best fit the current research study. For example, a grounded theory approach would lead the researcher to develop an inductively derived grounded theory about a phenomenon (Strauss & Corbin, 1990). However, instead of discovering a new theory, the researcher sought to understand the nature and complexity of the processes taking place. The study aimed to investigate how existing theory and contextual factors might explain the development of general education preservice teacher self-efficacy and the effect of these factors on the student teaching experience. Therefore, investigating how preservice teachers in rural schools come to understand the nature and purpose of inclusive classrooms. The case study approach legitimizes the participant understanding, thus viewing similar experiences through multiple lenses (Simons, 2011). Most importantly, the case study approach methodology excavates narrative descriptions that allow the depth of a knowledge to be shared and actively interrogated for meanings.

This study also considered additional qualitative research approaches, such as phenomenology, which is the study of people's reactions and perceptions of events or situations (Ledford & Gast, 2018). Put simply, the phenomenological approach considers the meanings people make of their lived experiences (Brantlinger, Jimenez, Klingner, Pugach, & Richardson, 2005). Van Manen (2011) posits that a phenomenological approach is most useful when the phenomenon is poorly defined or conceptualized. The nature, development, and growth of preservice teacher self-efficacy has been well represented in the literature, therefore not poorly conceptualized or defined. Creswell (2013) identified the major procedures for conducting phenomenological studies as identifying the common experience shared by several individuals, acknowledging the philosophical assumptions of the phenomenological tradition, collecting data, analyzing the data, and writing a report. The researcher considered developing a phenomenological understanding of the case study approach to augment the use of a questionnaire. Ultimately, the researcher's theoretical approach and research questions informed the decision to select a case study approach. This study required the exploration of bounded systems within a clear context.

This case study is exploratory because it explains a case and establishes identified links. Specifically, exploratory case studies seek to answer questions to clarify the presumed links in real-life interventions that are too complex for experimental strategies (Yin, 2003). The researcher can develop a deeper understanding of a phenomenon and more fully describe self-efficacy of preservice general education teachers within the rural public education context. Yin (2003) advanced the use of multiple sources of data collection in the same study for a deeper understanding of the complexity of the phenomenon. Baxter and Jack (2008) posited that a staple of the case study approach is the use of multiple data sources, which enhances data credibility.

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Equally important, Yin (2014) argued that data collection derived from numerous sources of evidence fulfills the need for the data to triangulate by combining a variety of information sources, including open-ended interviews, survey, and focus group.

The case study is one of the most frequently used qualitative research approaches (Hyett, Kenny & Dickson-Swift, 2014; Yazan, 2015). For Kumar (2005), the case study design developed on the assumption that the case is atypical, and a single case can provide more in-depth understanding. Stake (2013) outlined four essential characteristics of valid qualitative studies that are characteristic of case studies in general: holistic, empirical, interpretive, and emphatic. Creswell (2013, p. 97) opined that the case study approach "explores a real-life, contemporary bounded system (a case) or multiple bounded systems (cases) over time, through detailed, in-depth data collection involving multiple sources of information … and reports a case description and case themes." In addition, the current case study design concludes preservice teacher self-efficacy by investigating or analyzing preservice teachers within a context relevant to the teaching experience (i.e., during clinical practice) and in the location where they are most likely to teach in the future. Harland (2014) pointed out that case study methodology lends itself to the study of phenomena in the higher education context, providing an appropriate and relevant framework for researchers to better understand and reflect on issues within that context.

Through case study inquiry, the researcher can gather deep, rich, and descriptive annotations of interest though qualitative data analyzed alongside data points from survey analysis of quantitative data (Yin, 1994). Hyett et al. (2014) argued for qualitative case study approaches shaped by epitome, selection of methods, and overall study design. Consequently, this design allowed qualitative data embedded within the historically quantitative design. The researcher also conducted some discrete statistics (playing a secondary role) as the data would

not be meaningful if means and variance had not been included (Edmonds & Kennedy, 2013). The single case methodology was selected over multiple case study methodology because the researcher studied a particular group of participants in a specific context with limitations (previously discussed). Dyer and Wilkins (1991) argued that single case studies are better than multiple cases because single case studies produce better theory; although, they warn that this is not a guaranteed result. The decision between a single case study and multiple case study is made based on how much is already known (Yin, 1994).

Research Questions

Bandura's, social cognitive theory and self-efficacy beliefs form the theoretical bedrock of this study. According to Bandura (2001), an individual's self-efficacy belief system is not a global trait, but a different (differentiated to each person) set of beliefs linked to distinct realms of functioning. Preservice teachers develop various levels of efficacy for "teaching particular subjects to certain students in specific settings, and they can be expected to feel more or less efficacious under different circumstances" (Tschannen-Moran et al., 1998, p. 220). Thus, this investigation on rural preservice teachers' perceptions of inclusion: a study of candidates' self-efficacy and attitude toward teaching in inclusive classrooms, is guided by the following research questions:

RQ1: How do general education preservice teachers view their role in inclusive classrooms?

RQ2: How do general education preservice teachers understand inclusion related to self-efficacy to teach in rural inclusive classrooms?

RQ3: How do the impact of coursework and clinical practice in inclusive environments in a rural school district inform general education preservice candidates' attitude toward teaching in inclusive classrooms?

RQ4: How might contextual factors explain the development of general education preservice teacher self-efficacy?

Research Population and Sampling Method

Setting of study. The study took place in a rural part of Washington State and Oregon. Participants were identified from a small private teaching university located in a southeastern agricultural part of the state, with approximately 9,000 residents (US census, 2016). The small rural town is approximately 40 miles away from an urban city and 270 miles from Seattle. The teacher preparation university where study participants are enrolled has several Professional Development School (PDS) agreements with nearby rural school districts, which in total comprise of 13 public schools (three high, three middle and seven elementary) spread over seven rural communities. Preservice general education teachers were placed in six out of the 13 public schools for student teaching (also referred to as clinical practice or teaching practicum). Table 2 details the distribution of the preservice teachers.

One of the PDS sites is located across state lines in a nearby rural community in northeastern Oregon. According to the Washington State Office of Superintendent of Public Instruction (OPSI, 2016–2017) data, District A (which consists of nine schools) has an approximate student population of 6,000, of which 38% identify as Hispanic and 55% White. Additionally, 58% of the students receive free or reduced lunches, 14% have special individualized education plans (for moderate or severe disabilities), and 3% receive Section 504 accommodations. At the end of the 2014 school year, for instance, 12% of the students were

identified as having a special education need, and 2.1% received Section 504 accommodations.

District B is a much smaller school district with only three schools comprising of a total student

population of approximately 1,000, of which 42% identify as Hispanic and 51% White.

Table 2

Demographic Distribution of the Preservice Teachers

Participant ethnicity	White	22
	Hispanic	2
	Black	1
	Asian	1
	Total = 26	
Participant age range	20–25	24
	26–30	1
	31–35	1
	Total = 26	
Participant gender	Male	6
	Female	20
	Total = 26	
Participant major/area of specialty	Elementary Ed	15
	Secondary Ed	11
	Total = 26	

Additionally, 58% of the students receive free or reduced lunches, 11% receive special

education services (for moderate or severe disabilities), and 2% receive Section 504

accommodations. At the end of the 2015 school year, 10% of the students in District B identified

as having a special education need, and 0.8% received Section 504 accommodations. The school

district across the state line in northeastern Oregon (District C), comprised of approximately

1,000 students. About 85% described as economically disadvantaged, 52% received special

education services and have a disability, and the majority of the students (57%) identified as Hispanic.

The participating teacher preparation liberal arts university of approximately 2,000 full-time and part-time students, is geographically located within 10 to 20 minutes commute by car to any of the rural PDS district sites and is only one of two similar sized private teaching institutions of higher learning to offer a teacher education program in that area. The study participants enrolled in the College of Education, had senior status. The College has a total enrollment of180 students enrolled full-time in undergraduate (Bachelor of Arts and Bachelor of Science in Elementary Education & Secondary Education) and graduate teacher preparation programs (Master of Education, Master of Arts in Teaching and Master in Teaching). Some of the public school are multi-grade schools. According to the MUlitgrade School Education Project (MUSE, 2002), multi-grade schools are schools where groups of students of different grades are taught in a single classroom. At the student teaching site, one teacher in the same classroom teaches two grades.

Sampling and target population. Yin (2009) advanced the notion of purposive sampling in case studies where participants are selected deliberately based on characteristics of the population and the objective of the study. The participants in the current study comprised a sample of senior status, preservice general education teachers ($n = 26$), both male and female, enrolled in undergraduate fall, winter and, spring clinical practice/student teaching. The sample included preservice teachers in elementary grades (K–5), middle level grades (6–8), and secondary classes (9–12), who have previously taken the only course in inclusive education offered (inclusive of 18 hours of field experience in an inclusive classroom before student teaching). In the 2017–2018 academic year, the participating university recorded 65 elementary

certification majors, 59 secondary certification majors, and 26 teacher candidates in supervised student teaching. Of the 26 seniors in student teaching, 15 interned in elementary classrooms and 11 in middle and secondary classes. Of all student teaching candidates, 95% interned in inclusive classrooms, and 45% in multi-grade classrooms. Additionally, the participating university employed four full-time faculty members in the school of education, three adjunct faculty members and three university clinical practice supervisors.

Participants in the program were representative of the demographics of in-service teachers in area public schools–predominantly female and White. During the first two quarters of their clinical practice, student teacher candidates were assigned co-teaching duties with their mentor teachers who hold a minimum of a master's degree in education and who have taught for at least three years. All the participants were teaching in inclusive classrooms with at least one student with an individualized education plan (IEP) or Section 504 accommodation (504).

Under the PDS agreements, preservice student teachers visit the same classroom and co-teach alongside the mentor teacher for a minimum of 75 hours in the fall quarter and 100 hours in the winter quarter, before solo teaching for 350 hours in the spring quarter. In this study, since participation was voluntary, participants were assured confidentiality. The researcher informed participants that nonparticipation would not affect student teaching credit or academic standing. Since the researcher was also an assistant faculty member of the university, the researcher assured participants that involvement in the research would not impact the evaluation of their performance in their student teaching. The researcher enlisted a third party to help recruit students, distribute emails, and collect student responses.

Instrumentation

Using case study methodology, Creswell (2013) asserted that instrumentation, such as interviews and observations, contribute to understanding individuals' lived experience within the phenomena. Moreover, when a study employs open responses as informed by the research questions conformability is assured.

Instrumentation 1: Enrollment and demographic survey. A demographic information form was distributed to participants via Qualtrics during spring quarter student teaching. The survey served two purposes: to enroll participants and collect vital demographic information necessary to ensure participants met set criteria. The demographic survey (see Appendix A) asked participants to respond to the following questions:

1. With which gender do you identify?

2. What is your age?

3. Which racial group best describes you?

4. How many inclusive education courses have you taken?

5. What is your major or area of specialization?

6. Which of the following best describes your clinical experience or student teaching placement?

Instrumentation 2: InTASC-based survey instrument. The InTASC survey instrument (see Appendix E) was develop by Jenkins and Ornelles (2007). The authors granted permission to use the instrument in this study. Jenkins and Ornelles (2007) developed an open-ended survey that assesses general education teachers' perceptions of their competence to teach students with disabilities based on the InTASC standards. The creators developed the InTASC standards to improve teacher competencies, preparation and licensing. InTASC standards represent core

teaching principles that outline what general education teachers should know and be able to do to ensure every K–12 student reaches their learning goals. The standards embody of four categories; namely, the learner and learning, content, instructional practice, and professional responsibility.

The InTASC standards are essential to this study because they align with the principles of inclusive teaching and learning classrooms. Jenkins and Ornelles' (2007) surveyed 81 preservice teachers during their final year spring student teaching. The authors developed 48 competencies for general and special education teachers across the 10 InTASC principles. Jenkins and Ornelles (2007, p. 8) rephrased the competencies and made statements that began with, "I can, I understand, I know." Each of the InTASC standards included performance statements, essential knowledge statements, and critical dispositions (CCSSO, 2013). Data from responses scored on a 7-point Likert scale ranging from seven (strongly agree) to one (strongly disagree) was analyzed. Likert scales are useful for measuring attitudes, beliefs, and opinions.

Furthermore, Likert data's acceptance throughout the social sciences is well known. For example, Spooren, Mortelmans, and Denekens (2007) developed a Likert scale-based instrument consisting of item sets relevant to measuring students' attitudes in higher education courses toward concepts (presentation skills, the value of the course, clarity of objectives). The researchers developed 10 Likert scales based on educational theory and empirical data. Spooren et al. (2007) concluded that compared to with the single-item approach, scaled type evaluations measure instructional skills better since they are less sensitive to ambiguous interpretations and accidental fluctuations of participant responses.

By rephrasing each standard, Jenkins and Ornelles (2007) maintained internal consistency in the instrument. Consequently, instead of asking one question per InTASC

standard, sub-questions were used to produce results that are more reliable and convey a better understanding of the standard. For example, the standard for learner development includes three performances, four essential knowledge areas, and four critical dispositions (InTASC, 2001). Using *Learner Development*–The teacher understands how learners grow and develop, recognizing that patterns of learning and development vary individually within and across the cognitive, linguistic, social, emotional, and physical areas, and designs and implements developmentally appropriate and challenging learning experiences.

Instead of responding to the entire standard in a block statement, preservice teachers respond to the dispositions, performances, and essential knowledge areas by responding to separate questions derived from the standard's performances, essential knowledge, and critical dispositions:

1. I have an understanding of physical, social, emotional, and cognitive development from birth through adulthood and I am familiar with the general characteristics of the most frequently occurring disabilities.

2. I can continually examine my assumptions about the learning and development of individual students with disabilities and I have realistically high expectations for what students with disabilities can accomplish.

3. I recognize that students with disabilities vary in their approaches to learning depending on   factors such as the nature of their disability, their level of knowledge and functioning, and life experiences.

4. I am knowledgeable about multiple theories of learning (e.g., behavioral theory and behavior analysis, socio-cultural theory of cognitive development) and research-based teaching practices that support learning.

Instrumentation 3: Interview protocol with open-ended questions. According to Yin

(2014), interviews are one of the most important sources of case study evidence. An interview

protocol was developed and was used as a standard to guide the process (see Appendix B).

Open-ended questions were followed up oral probes such as "*tell me more*" and "*please explain*"

to explore and build upon preservice teachers' responses. The interview questions were linked to

the research questions and participant responses to the InTASC-based survey instrument. In 30-

minute interviews (longer if necessary), participants first discussed their perceptions about their

role in inclusive education (RQ1). Second, participants considered inclusion at their student

teaching site and its impact on their day-to-day instructional activities (RQ2). Third, participants

described the effect of coursework and preparation for teaching students with disabilities and

ELLs (RQ3). Fourth, participants discussed the factors they believed were unique to their school

environment and how inclusion was positioned (RQ4). Lastly, the researcher asked participants

to clarify responses to statements or expand on common themes made on the InTASC-based

survey instrument. Yin (2014) recommended ensuring the case study is an iterative process. The

researcher developed an interview schedule that followed completion of the survey instrument

(considering previous data collection) and classroom visitation. Some of the interviews took

place at the university within a week of the observation at the request of the participant.

Instrumentation 4: Nonparticipant observations (with post-lesson semistructured

discussion). Marshall and Rossman (1989, p. 79) defined observation as "the systematic

description of events, behaviors, and artifacts in the social setting chosen for study." Creswell

(2013) asserted that it is essential that the researcher observes the participants during the field

experience. In the research, field experiences were carefully designed to help preservice

teachers' implementation of strategies acquired during their coursework appeared to have the

most promise for increasing preservice teachers' sense of efficacy. Their perceptions of competence, planning abilities, knowledge, and classroom performance (Leko, Brownell, Sindelar, & Murphy, 2012) were also enhanced. In the current study, the researcher engaged in 15–20 minutes of direct observation, capturing low inference field notes, especially regarding interactions between participants and learners with disabilities in the classroom. When appropriate, the researcher attempted to conclude each visit with a 5–10 minute post-lesson discussion.

Data Collection

The data collection process began with institutional review board (IRB) approvals from the participating university in Southeast Washington and Concordia University–Portland. With permission granted from both IRBs, data collection began (spring quarter 2018) while participants were student teaching in inclusive classrooms (K–12). One of the School of Education's secretaries notified participants ($n =26$) via their university email addresses. Instructions to participants included information on how to complete the enrollment and demographic survey online via mobile phones or computer using a general URL. Subsequently, each person who volunteered for the study received a personalized URL (using an embedded code to identify each participant) via their university email address of the InTASC-based survey instrument via the software package, Qualtrics.

Before the open-ended interviews, the researcher visited each of the study participants (nonparticipant observations) during clinical practice and took field notes. The researcher uploaded field notes to Qualtrics. Field notes included for analysis captured the setting, instructional content, teacher and students actions, verbal and nonverbal cues (Cohen, Manion, & Morrison 2013). The nonparticipant observations helped the researcher explore practical

cognitions influencing the behavior and attitude of preservice teachers in the inclusive

classrooms. Participants were asked to explain their actions in the classroom based on InTASC

standards during the post-lesson discussion.

The researcher developed scripted open-ended questions and a semistructured interview

protocol. In the case study literature, open-ended questions are appropriate for individual

responses and seen as an effective way of studying opinions, beliefs, and attitudes. Participants

enrolled in the study completed the InTASC survey and consent form (see Appendices E and

Appendix D respectively). Participants were sent a general link to the consent form first via their

university email addresses. Once the consent form was completed, the participants were assigned

a second public link to the demographic survey instrument. Both documents were completed by

100% of participants within 48 hours. Seidman (2013) argued that the interviewer should

actively listen to participants' responses, audio-record interviews, and take field notes. These

interviews were audio-recorded and transcribed as described. Digital copies of data stored in

Qualtrics also include transcribed interview data, scanned field notes, and other documents.

Data Analysis Procedures

Data analysis commenced with member checking. According to McMillan (2012),

member checking is the process of participant validation and is an essential early step in data

analysis. The member checking process in research is a technique for establishing the validity of

an account and served as a debriefing method after data collection from interviews and

observations. Member checking can be done both formally and informally, as opportunities for

member checks may arise during the normal course of observation and conversation (McMillan,

2012). Fifteen preservice teachers participated in the study. Participants (n=15) were given a

transcribed copy of their interview via email to correct any incomplete thoughts and verify

information for accuracy. This member checking technique was selected as a responsible way to establish the validity of an account and served as a debriefing method after data has been collected from interviews and observations (see Appendix C). Informal member checking opportunities arose during the ordinary course of observation and open-ended interviews. Pseudonyms were used to track participants for data analysis purposes and to protect the identity of participants.

In this study, data were analyzed using a combination of thematic (deductive) and content analysis procedures. The researcher employed manual procedures and computer software-based procedures using NVivo 12 (Mac Version). According to Hatch (2002, p. 148), data analysis "means organizing and interrogating data in ways that allow researchers to see patterns, identify themes, discover relationships, develop explanations, mount critiques, or generate theories." Braun and Clarke (2006) conceded that often in qualitative research studies, insufficient detail is given to reporting analysis procedures. Accordingly, in many studies, the two analysis approaches are used interchangeably; however, the current study employed both methods to develop trustworthiness in the results and a rich understanding of the data. Both thematic and content analysis approaches provide researchers with analysis of data. Accordingly, Turunen, Vaismoradi, and Bondas (2013) explained that the two methods differ as content analysis uses a descriptive approach in both coding of the data and its interpretation, while thematic analysis provides a purely qualitative, detailed, and nuanced account of data.

By employing both approaches within the same study, the researcher operated on the premise that the data collected was accurate and representative of the truth. Krippendorff (cited by Turunen et al., 2013) explained that content analysis made sense of what is mediated by people, including textual matter, messages, information, and social interactions. Thematic

analysis considers systematic characteristic of content analysis and allows the researcher to

combine analysis of their meaning within their specific context. Content analysis uses a

descriptive approach to coding and interpreting data and enables quantitative counts for codes,

while thematic analysis promotes detailed and nuanced accounts of data.

Thematic analysis was conducted to analyze data obtained from open-ended interviews,

nonparticipant observations (field notes), and post-lesson discussions. Marsall and Rossman

(1989) explained that thematic analysis of interview data comprises six phases, closely followed

by the researcher: (a) read, reread, and organize the data, (b) generate nodes via NVivo, (c) code

the data, (d) test emergent understanding of the information, (e) search alternative explanations

of the data, especially considering participant observation notes, and (f) write up the data

analysis. Organizing the data and becoming familiar with it was done by reading the data

repeatedly to obtain a sense of the whole picture at more than one point during the analysis

process (Hsieh & Shannon, 2005). The researcher analyzed interview transcripts and field notes

and used NVivo to archive and index every document by scanning and uploading documents that

were not entirely digitally. Interpretive reading of the data involved constructing meaning in the

data. Patterns in the data relating to topics described by participants generated themes. The

researcher also noted recurrent themes mentioned by participants, ensuring the categories that

emerged were consistent (linking similar things together), but distinct from each other. Once

patterns were identified codes were reread and written next to text that reflected an idea. The

purpose of two approaches is to look at the data from two perspectives: (a) guided by the

conceptual framework, and (b) guided by the research questions. Manual checks were used to

improve trustworthiness, credibility, and validity of results. According to Marsall and Rossman

(1999), testing new understandings involves getting a sense of what the data means against theoretical understanding.

The researcher conducted content analysis to analyze data obtained from the InTASC-based survey instrument (Babbie, 2001). The InTASC-based survey instrument was developed using ordered categories on a 7-point Likert scale ranging from seven (strongly agree) to one (strongly disagree). The procedure for content analysis involved reading all data repeatedly to obtain a sense of the whole picture (Hsieh & Shannon, 2005) and exporting the data into NVivo. Erlingsson and Brysiewicz (2017) recommend dividing the text into meaning units and condensing the meaning units. In this study, the InTASC-based survey instrument consists of 49 questions based on 10 InTASC standards, with each standard serving as a meaning unit aligned with the research questions. The researcher summarized each response based on the standards, keeping the research aim and research questions in focus. The condensation resulted in shortened versions of the standard, without diluting the skills, concepts, and knowledge of each standard.

Miles and Huberman (as cited in Hsieh & Shannon, 2005) recommended an additional reread (word by word) to derive codes (aligned to the conceptual framework) that capture key thoughts or concepts using Bandura's (1997) theory and prior research. A code can be thought of as a label, usually one or two words long. Categories are formed by grouping together codes that relate to each other. Weber (1990) suggested codes derived from relevant research findings, and operational definitions for each category can also be determined using theory and prior research. Finally, after data from the two sources have been analyzed and individually coded, the data is combined or juxtaposed further to strengthen the connection to the research questions. Creswell (2013) recommended beginning with a short list of five or six categories (themes derived from

categories) for the researcher to use in coding the data for analysis, though he also noted that other researchers recommend a more significant number of codes, categories, and themes.

Limitations and Delimitations of the Research Design

Limitations. There are limitations to the research design. One such limitation is time. The data phases took place during the final quarter of student teaching, and the study data provided only a snapshot of occurrences in the classroom that contribute to preservice teacher self-efficacy. Additionally, the study size was also a limitation because a large sample would have allowed the use of a mixed methods approach and maximum variation sampling. According to Yin (2014), case studies, by design, are not randomly selected, and the participants must be thoughtfully and chosen systematically. To avoid sampling errors, Creswell (2013) advised case study researchers to use a maximum variation as a sampling strategy. To this end, the convenience sampling strategy was used and included participants of senior status who were student teaching and who had completed coursework in inclusion at the university — the parameters set for the study guided by the conceptual framework and review of the literature. Accordingly, preservice teacher candidates may be affected by their level and type of interaction with their students and mentor teacher. However, preservice teachers were invited to share in semistructured interviews, responding to open-ended questions.

Delimitations. The delimitations are "characteristics that the researcher used to limit the scope of the investigation and identify the boundaries of the study" (Simon, 2011, p. 2). The target population, research questions, and context were delimiting factors. For example, there is limited diversity of participants in the target population, as the preservice teachers were predominantly female and White. The demographic is more representative of the existing in-

service teacher population at the PDS sites than the student population. This factor may affect how students respond to preservice teachers who look more like their teachers than they do.

Additionally, participants must have senior status, have taken one or more classes in inclusive education, and must be general education preservice teachers during the second quarter of student teaching, meaning the study is limited by the sample size (n=15). The study was restricted to a single small group of education majors enrolled at a single university. The rural nature of the study sites means that a major city is approximately 300 miles away. The researcher acknowledges that the personal experiences and/or biases of respondents will be reflected in their response to self-efficacy to teach students with disabilities in the classroom, bearing in mind the over-representation and racial disproportionalities of students with disabilities in the school districts.

Internal and External Validity

The researcher ensured that the study was credible and dependable through the implementation of safeguards. The researcher employed the use of various techniques to establish the validity and reliability of qualitative data. The researcher believes that these are important to determine the stability and quality of the data obtained. According to Yin (2014), a research design that has anticipated questions, over-generalizations, and making inferences without considering all explanations by the researcher has begun to deal with the overall problem of internal validity.

Internal validity. Creswell (2014), posited that internal validity indicated there are no internal errors to the design of the study; the fewer errors, the higher internal validity. This study maintained internal validity through member checking and reflexivity (McMillan, 2012). Moreover, the researcher was aware of potential bias (to avoid reflexivity). Creswell (2013)

advanced that the past experiences of the researcher shapes their interpretation of the data. The researcher relied on several credibility measures for qualitative research discussed by Brantlinger et al. (2005), such as triangulation, to help the validity of data collected. According to Breitmayer, Ayres, and Knafl (1993), triangulation of data sources, data types, or researchers is a primary strategy that can be used and supports the principle in case study research that the phenomena be viewed and explored from multiple perspectives. The combination of these methods helped validate interpretations of findings because the observations reinforced the data obtained from the interviews and responses to open-ended questions. Further, triangulation increased the validity, strength, and interpretative potential of a study decreased investigator biases and provided multiple perspectives to use in methods involving triangulation as discussed by Bekhet and Zauszniewski (2012).

The data analysis involved the triangulation of semistructured interviews and nonparticipant observations (Thurmond, 2001). It is common for researchers using the triangulation method to have at least two data collection procedures from the same design approach (Kimchi, Polivka, & Stevenson, 1991). This type of methodological triangulation potentially exposes unique differences or information that may have remained undiscovered with the use of only one approach or data collection technique (Bekhet & Zauszniewski, 2012). Yin (2014, p. 241) also stresses the importance of triangulation, which he defines as the "convergence of data collected from different sources, to determine the consistency of a finding." Validity refers to the suitability of the measure used in the research (Litwin, 2003). Jenkins and Ornelles (2007) evaluated the internal consistency across the survey questions in the survey instrument, noting the alpha coefficients acceptable level of consistency in the range

0.68–0.88. Broadly, interpreting alpha for Likert scale questions (Litwin, 2003) within the range

falls within the acceptable (0.70–0.79) to good (0.80–0.89) range.

External validity. As previously mentioned, this case study research has limitations.

Chiefly, the sample size and context, which make applying generalizations to a more significant

population difficult. According to Yin (2014), applying generalizations is a general case study

design limitation that has the potential to compromise the external validity of future studies.

However, the current case study design focuses on a real-world case within a specific context.

Through the semistructured interviews, rich data collection ensues, which increases external

validity. Elo et al. (2014) asserted that the trustworthiness of content analysis results depends on

the availability of abundant, appropriate, and well-saturated data. The researcher was aware that

this began with thorough preparation before the study and the use of multiple sources of data.

Ethical Issues in the Study

Ethical considerations are essential in every research study involving human subjects.

The participation of preservice general education teachers in this research was voluntary. The

researcher provided participants a copy of the consent form explaining the purpose and design of

the study, as well as the role played by participants in the research. The researcher also assured

that their names and personal details would remain confidential and maintained in reporting the

results of the investigation through the use of a consent form (see Appendix D) and member

checking (see Appendix C). Participants were also made aware that whether or not they

participated in the study, their performance as students in clinical practice/student teaching

would not be affected. The researcher was not involved in evaluating participant performance in

clinical practice/student teaching. At the participating university mentor teachers and university

supervisors were responsible for evaluating student teacher performance. A member of the

participating institutions secretarial staff was enlisted to advertise the study and enroll

participants to avoid potential conflicts of interest and the perception of undue influence or

coercion, as the researcher is also a faculty member in the participating university's teacher

education program.

Summary

This chapter has provided an overview of the research methodology used to investigate

rural general education preservice teacher readiness to teach students with disabilities in the

inclusive classroom. In addition to a discussion of the instruments used, descriptions of the

participants and setting were included, and a rationale for the selection of the case study design

provided. This qualitative case study design contextualizes the experiences of teachers through

statements, meanings, and a general description of their perceptions. Overall, the collection and

comparison of this data enhance data quality, based on the principles of idea convergence and the

confirmation of findings. This study employs the use of multiple sources of data to help address

credibility. Additionally, the interview data is corroborated with observations and documents to

improve data verification (Yin, 2014).

Chapter 4: Data Analysis and Results

The purpose of this single case study was to explore how preservice general education teachers perceived inclusion and the role of their attitudes and beliefs about inclusion play in their overall student teaching experiences in a rural setting. Special education law requires the placement of students with disabilities in the least restrictive environment. The mandate has led to the inclusion of many students with disabilities in general education classrooms irrespective of school district location (i.e., rural, urban, or suburban). This qualitative study follows a single case design to understand the context and present variables in how rural preservice teacher self-efficacy affects the practice of inclusion. This chapter presents a review of the research questions, describes the sample, reviews the methodology and analysis procedures, summarizes the findings, and presents the analyzed data.

The following research questions guide the study:

RQ1: How do general education preservice teachers view their role in inclusive classrooms?

RQ2: How do general education preservice teachers understand inclusion related to self-efficacy to teach in rural inclusive classrooms?

RQ3: How does the impact of coursework and clinical practice in inclusive environments in a rural school district inform general education preservice candidates' attitude toward teaching in inclusive classrooms?

RQ4: How might contextual factors explain the development of general education preservice teacher self-efficacy?

One feature of a case study identified by Bengtsson (2016), is that it is bounded by time and place where the process of analysis reduces the volume of texts collected, identifies and

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groups categories together, and seeks some understanding of the case. The role of the researcher in this phase of the case study was to understand a contemporary phenomenon in depth, by coping with the technical and geographical distinctiveness in which there were many more points of interest than data points (Yin, 2014). The study design was modeled on previous research that teaching is a specific domain of practice in which preservice teachers can hold high efficacy beliefs. The researcher will play a key role in gathering the data and analyzing the data (Bogdan & Biklen, 2003). Qualitative data collection and analysis methods were selected because the study examines the factors that influence teacher beliefs to perform evidence-based practices within a particular context, which is neither a purely cognitive matter for the preservice teachers nor a mere statistical measure. Furthermore, the study analysis process involved the careful reflection and changes made to data gathering (Harland, 2014). In general, the processes involved in data analysis included decontextualization, recontextualization, and categorization at each stage, performed several times to maintain the quality and trustworthiness of the analysis.

Description of the Sample

The target population of this study included all general education preservice teachers ($n = 26$), male and female, enrolled in an undergraduate student teaching seminar course at a small university in rural southeastern Washington. Fifteen preservice student teachers volunteered for the study. The size discrepancy resulted from nonprobability sampling used in this study. Participants availability (i.e., they volunteered) and study parameters (preservice teachers, senior status, completed one course in inclusive education) may have also contributed to the size discrepancy. The researcher employed a convenience sample because the study participants were required to hold senior status and who were preparing for graduation. Smith (1983) argued that with this type of sampling, some members of the population have no chance of being sampled.

Therefore, the extent to which a convenience sample represented the entire population cannot be known (regardless of its size). The College of Education, where the participants were enrolled, consists of approximately 180 students enrolled full-time in undergraduate (B.A and B.S in Elementary Education & Secondary Education) and graduate teacher preparation programs (M.Ed., M.A.T., & M.I.T.). In the 2017–2018 academic year the participating university recorded 65 elementary certification majors, 59 secondary certification majors and 26 teacher candidates in supervised student teaching. Of the 26 seniors in student teaching, 15 were interned in elementary classrooms and 11 in middle and secondary classrooms. 95% of all student teaching candidates were placed in inclusive classrooms, while 45% of candidates taught in multi-grade classrooms.

The teacher preparation university where the study participants were enrolled has several Professional Development School (PDS) agreements with nearby rural school districts that comprise 13 public schools in total (three high, three middle, and seven elementary), spread over seven rural communities. The sample of preservice student teachers who participated reflected placements in elementary grade (K–5), middle-level grade (6–8), and secondary grade (9–12) classrooms, consisting of at least one K-12 learner with a documented special education plan (IEP or 504). Among the participants, 100% had completed at least one undergraduate course in inclusive education before going into student teaching. All of the participants completed an InTASC survey instrument as well as the non-participant observation and the open-ended interview that followed. Table 3 provides a breakdown of participant demographics; they were mostly White, female, and within the age range of 21–24 years.

Participant 1(P1) was a 20-year-old male who majored in elementary education and minored in English. P1 did not disclose his ethnic background on the demographic survey. His

student teaching placement in a small multi-grade classroom of fourth and fifth graders included three learners on IEPs and five learners on 504 plans. P1 transferred in the participating university during his junior year from a larger, out-of-state college. P1 had experience working with adults with disabilities as a swim instructor at a disabilities summer camp and completed a single course on inclusive education three quarters before the student teaching quarter.

Participant 2 (P2), a 23-year-old male student, started his undergraduate career at the participating university. He majored in mathematics and minored in chemistry. P2 identified as White who interned in a small high school of approximately 180 students. P2 stated that he did not have any experience working with students with disabilities before student teaching. His student teaching placements in Math and Chemistry included ninth and tenth-grade learners consisting of six students on IEPs. He completed one undergraduate course in inclusion three quarters before student teaching.

Participant 3 (P3) was a 22-year-old female from a large urban city in the Northeastern US. She was the only participant who identified as Asian and double majored in elementary education and art education. She interned in a fourth-grade student teaching classroom of 25 learners, which included two learners on IEPs. She worked at the student teaching placement as a student assistant (Work Study) for three quarters before student teaching and often took on para-professional roles in her student teaching classroom, familiarizing herself with the K–12 learners. She completed one undergraduate course in inclusive and special education during the fall quarter of her student teaching year.

Participant 4 (P4) was a 21-year-old Hispanic female who was born in the same town as the participating university. She attended private elementary, middle, and high schools. P4 had no formal experience with students with disabilities before student teaching. P4 completed

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coursework in inclusive education during the fall quarter (first quarter of student teaching), majored in elementary education and minored in history. P4 interned in a second-grade student teaching classroom, where one learner was accommodated through an IEP.

Participant 5 (P5) was a 21-year-old, White female native to the study location and educated at the public schools there. She majored in elementary education and minored in English, and completed one course in inclusive education one quarter before student teaching. P5 had no formal experience with students with disabilities. She reported having a younger sibling with high function autism who accelerated through high school in two years and who was ending his freshman year at a large university in the Northeastern US. She completed her student teaching in a fifth-grade classroom where one learner was on an IEP.

Participant 6 (P6) was a 22-year-old, White female from the western side of the state. She majored in elementary education and minored in humanities and completed one course in inclusive education two quarters before student teaching. During field experience, P6 interned in a self-contained classroom in a middle school, which served as her only experience with students with disabilities who were mainstreamed in that classroom. There were six students with IEPs in her student teaching placement.

Participant 7 (P7) was a 24-year-old White female from outside the state. She majored in elementary education and minored in music, and completed one course in inclusive education online during the summer before student teaching. P7 responded that she had no formal interactions with students with disabilities in her classroom before enrolling as a college freshman. In her student teaching placement, there were four students with IEPs.

Participant 8 (P8) was a 22-year-old White female native to the local area. Her student teaching placement was the furthest away from the university. There were seven students with

IEPs in her second-grade student teaching classroom. P8 completed one course in inclusive education two quarters before student teaching. Her field placement location during the course was in an early childhood special education pre-school. P8 majored in elementary education and minored in physical education.

Participant 9 (P9) was a 21-year-old White female from outside the state. She majored in elementary education and minored music. P9 spent a missionary year abroad working with students with learning disabilities as a tutor three quarters before student teaching. She completed one class in inclusive education during the first quarter of student teaching. P9's student teaching classroom comprised of eight students with IEPs.

Participant 10 (P10) was a 24-year-old White female. Her four-year-old son is developmentally delayed and attends a special education pre-school at the university. Besides personal experience with learners with disabilities, P10 also worked as a student aid at her student teaching placement. P10 completed one course in inclusive education during her first quarter of student teaching. She double majored in elementary education and music education with a minor in humanities.

Participant 11 (P11) was a 23-year-old White female native to the local area. Before field experience, P11 had never attended public school as she was homeschooled. P11 completed one course in inclusive education during the fall quarter of her student teaching year. Her seventh-grade student teaching placement included two students with IEPs. She majored in history and minored in education with certification.

Participant 12 (P12) was a 21-year-old White female native to the local area. Before student teaching, P12 had no formal experience with persons with disabilities. Although her student teaching placement was in a multi-grade middle school classroom, only one learner had

an IEP. P12 completed one course in inclusive education and special education three quarters before student teaching. She majored in elementary education and minored in humanities and completed one course in inclusive education during the fall quarter of student teaching.

Participant 13 (P13) transferred to the university from a more extensive public university during her sophomore year. She majored in biology and minored in mathematics. The 21-year-old White female spent three consecutive summers working as a camp counselor. During that time, she interacted with two campers with physical disabilities. P13 did not have any other formal special education experience. She completed a course in inclusive education at another university.

Participant 14 (P14) is a native of the area. In her formative years, she attended a small one-room Christian school in a remote part of the county. The 21-year-old White female completed middle and high school at a larger Christian school near the university. Although P14 has two relatives with physical disabilities, she had no experience with children with disabilities in the classroom environment. She majored in history and education (with certification) and completed coursework in special education and inclusive education during the fall quarter of her student teaching year.

Participant 15 (P15) was a 22-year-old White female. She majored in elementary education and art. Her third-grade student teaching placement included two students with disabilities on IEPs. P15 completed one course in inclusive education during the fall quarter of her student teaching year. P15 reported no experiences working with students with disabilities.

Table 3

Participant Preservice Teachers

	Age range	Gender	Ethnicity	No. of students in student teaching classroom with documented disability	No. of special education/inclusion courses completed
P1	21–24	Male	*No response*	8	1
P2	21–24	Male	White	6	1
P3	21–24	Female	Asian	2	1
P4	21–24	Female	Hispanic	1	1
P5	21–24	Female	White	1	1
P6	21–24	Female	White	6	1
P7	21–24	Female	White	4	1
P8	21–24	Female	White	7	1
P9	21–24	Female	White	8	1
P10	21–24	Female	White	3	1
P11	21–24	Female	White	2	1
P12	21–24	Female	White	1	1
P13	21–24	Female	White	3	1
P14	21–24	Female	White	4	1
P15	21–24	Female	White	2	1

Table 3 provides a breakdown of participant demographics, the majority of whom were White, female, and 21–24 years old. There were no deviations from the make-up of the anticipated target population discussed in Chapter 3, and 100% of the study participants completed at least one undergraduate course in inclusive education before student teaching. All participants completed an InTASC survey instrument, as well as the nonparticipant observation and open-ended interview that followed.

Research Methodology and Analysis

This study employed a qualitative research methodology to investigate the research questions. The case study design set the foundation to explore how preservice general education teachers perceived inclusion and the role of their attitudes and beliefs about inclusion play in their overall student teaching experiences in a rural setting. Qualitative case study methodologies were selected because overwhelmingly, this method of research for in-service or preservice teachers' self-efficacy has often been overlooked and neglected (Tschannen-Moran et al., 1998). This qualitative case study design contextualizes experiences of teachers through statements, meanings, and a general description of their perceptions. Overall, the collection and comparison of this data enhance data quality based on the principles of idea convergence and the confirmation of findings. Multiple instruments used to collect data ensuring the data collected responded to the research questions with sufficient confidence. Triangulation of data from the various source was the primary strategy to support this case study research. Throughout the data collection process, the researcher was mindful of approaching data collection rigorously and ethically. Participant responses were secured on a non-cloud enabled, password protected computer for software analysis and archived in a securely locked filing cabinet.

Enrollment and demographics survey. During the first phase, the researcher collected enrollment data, demographic data, and participant consent via a Qualtrics survey emailed to participants by a third party. Demographic survey information allowed the researcher to understand how the natural makeup of the study population (of preservice teachers) matched the in-service teacher population. The researcher enlisted the help of a third party to promote the study and distribute the surveys to avoid conflicts of interest and the perception of undue influence or coercion, as the researcher is also a faculty member in the participating university's

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teacher education program. Further, the study design mandated recruitment of a study population

without recruitment bias. In so doing, the researcher attempted to obtain (through advisement)

even distribution of respondents by race and gender. However, the limited number of participants

in the target population hampered the researcher's efforts as respondents were mostly White

females.

Once participants completed the demographic survey to enroll in the study, a link to a

Qualtrics created consent form was distributed electronically highlighting the study purpose,

risks to participants, and information about confidentiality. Participants completed the consent

form by indicating they had read and understood the study purpose and procedural safeguards.

Participants spent an average of 12 minutes completing the survey on the same day of

distribution. The researcher completed the collection of enrollment, demographic surveys, and

consent forms on the same day of distribution.

InTASC survey. The electronic distribution of the InTASC survey instrument to

participants followed immediately after proper completion of the consent form in the first phase.

As described in Chapter 3, Jenkins and Ornelles (2007) modeled the survey instrument protocol

to assess general education teachers' perceptions of their competence to teach students with

disabilities based on the InTASC standards (see Appendix E). InTASC standards represent core

teaching principles that outline what general education teachers should know and be able to do,

to ensure every K–12 student reaches their learning goals.

A unique link (per participant) to the same Qualtrics developed InTASC survey

instrument was delivered electronically to participants via their university email address. The

participants responded to 48 combined statements (competencies) for general education teachers

across the 10 InTASC principles. Modeled on Jenkins and Ornelles' (2007) study, the current

study also rephrased the competencies by adding, "I can, I understand, I know" to the beginning

of competencies to help preservice teachers personalize their responses. Each of the 10

statements on the InTASC survey was rated using a seven-point Likert scale with a range of

responses: 1 = strongly disagree; 2 = disagree; 3 = somewhat disagree; 4 = neutral; 5 = agree

somewhat; 6 = agree, and 7 = strongly agree. Participants spent between 16 and 32 minutes of

completing the survey. All participants completed the survey between one to eight days of

distribution. Zero participants dropped out of the study. As discussed in the data collection

design, the researcher was careful to ensure data sources converged to understand better the

overall case, not just various parts of the case, and the contributing factors that influence the

case (Baxter & Jack, 2008). Therefore, the study design included the third phase of data

collection discussed in the following section.

Nonparticipant observations. The third and final phase of data collection did not

involve the electronic distribution of instruments. In the first part of this phase, the researcher

visited participants at their student teaching placements. Within the first five minutes, the

researcher engaged in a broad scope observation of the surroundings and setting of the learning

environment. The researcher wanted to make the first encounter with the K–12 students as

minimally distracting as possible while noting the layout of the learning environment. The rest of

the time was spent conducting a narrower and more focused observation of the teaching and

learning. The researcher recorded low inference field notes under two headings: teacher actions

and student actions. The researcher also made a note of the learning target(s) and instructional

focus if they had been made available by the student teacher.

The researcher had limited interaction with the student teachers and their K–12 learners

during the observations. The researcher spent 10–15 minutes in each student teaching classroom.

By design, the researcher also had very little advance knowledge of the K–12 learners in the classroom with a documented IEP or 504 in place to avoid violating the K–12 learners' privacy. Instead, the researcher relied on teacher actions, evidence of differentiation, and adaptations to instructional methods and content. Observations took place at various times during the school day to offer a nuanced and dynamic appreciation of the learning situations not easily captured through other methods (Liu & Maitlis, 2010).

Lui and Maitlis (2010) highlighted the importance of conducting nonparticipant observations in tandem with other data collection methods. Consequently, the researcher conducted in-person semistructured interviews with participants following the classroom observation. The study design discussed in Chapter 3 focused on conducting the interviews on the same day of the observations; however, only two interviews were conducted on the same day as the observation due to the dynamics of the instructional day. The researcher conducted the rest of the interviews within one to four days of the classroom observation at an off-site location. Off-site interviews were conducted in-person in a quiet classroom at the university.

Hatch (2002) positioned semistructured interviews to gain a thorough understanding of what a participant knows about a topic. The length of interviews ranged between approximately 12 and 27 minutes in duration, recorded via digital audio recorder. Audio files tagged in the recorder with participant pseudonyms and transferred to a non-cloud connected computer encrypted by a password. The researcher closely followed the interview protocol (discussed in the previous chapter). However, participants were asked to clarify statements and researcher observed teacher/K–12 student actions at the discretion of the researcher. Within a day of completing individual interviews, audio files were transcribed first using online transcription

software (rev.com) and then transcribed manually to ensure nothing was missed (Tilley & Powick, 2002).

Member checking

Participant validation or member checking followed the interview and transcription process. The researcher returned interpreted data and transcripts to participants via a password protected portable document format (PDF) file sent to their university email addresses. Some participants responded to the emails while others opted to visit the researcher in person to approve the use of the transcribed and interpreted material. In-person participant validation talks were generally informal and lasted approximately 20 minutes. The researcher used pseudonyms (P1–P15) to track participants for data analysis purposes and protect the identity of participants. All of the participants confirmed their transcripts.

Data Analysis

The purpose of the data analysis procedures utilized in this study was to summarize data to understand and answers the research questions. In this study, three data sets resulted from data collection in three phases using three different data collection instruments. The sections that follow describe the processes used in data analysis: exploratory data analysis, cross-tabulation analysis, thematic analysis, and discrete statistics. Exploratory data analysis involves analyzing data sets to get a sense of the whole and summarize their characteristics. A cross-tabulation analysis was used to study the results of the entire group of participants in Qualtrics. The researcher employed a combination of thematic (deductive) and content analysis coding procedures. As described in Chapter 3, this study employed both methods to develop trustworthiness in the results and a rich understanding of the data. Both thematic and content analysis approaches provide researchers analysis of data where the context of the data. Thematic

analysis was conducted to analyze data obtained from open-ended interviews, nonparticipant observations (field notes), and post-lesson discussions, while content analysis was conducted to analyze data obtained from the InTASC-based survey instrument.

Enrollment and demographics survey. Participant responses from the demographic and enrollment survey compiled in Qualtrics were exported and analyzed in NVivo. The simple survey structure of the demographic and enrollment instrument collected adequate information about the participants. The researcher reassigned participant pseudonyms and tabulated the data according to the following subgroups: gender, student teaching placement (elementary, middle, or high), K–12 class structure (single grade or multi-grade), and student teacher ethnicity. Additionally, the researcher used the data to cross-tabulate and compare subgroups to understand better how responses varied between and across these groups. The researcher cross-tabulated the data based on gender (male vs. female) and grade level of student teaching placement by studying the responses of preservice teachers placed in elementary schools against middle schools and high schools.

InTASC survey. The researcher analyzed InTASC survey data in Qualtrics using exploratory data analysis. Exploratory data analysis was used because the researcher wanted to understand the data files to get a picture of the whole and determine whether any questions had been missed or skipped. The researcher determined that all participants respond to all the questions. The exploratory analysis process of the InTASC survey data began with archiving (keeping an electronic backup of the data), followed by metadata recording (matching participants' pseudonyms with when, duration, and other identifiers). In Qualtrics, the researcher developed both graphical displays of the data based on each response to the other 10 InTASC competencies and numerical summaries. Next, the researcher developed histograms to count

responses to each InTASC standard. Consequently, the researcher could analyze responses within standards (competencies) and across standards (competencies).

Descriptive statistical methods were also used to analyze the survey data to help describe, summarize, and derive emerging patterns. The researcher determined that the interpretation of the survey data required measures of central tendency and measures of spread. Measures of central tendency were employed to describe the central position of data using the arithmetic mean or average. Naturally, value can replace existing participant responses and have the same result. Additionally, measures of spread were also used to summarize the group of data by describing the spread of responses using variance and standard deviation. In this study, the researcher used standard deviation to determine how far an observation of participant responses was from the mean.

Field notes and transcripts. The researcher used open coding in NVivo and common patterns and themes identified, using the conceptual attributes outlined in the previous chapter and the research questions. First, the researcher sought to archive and index documents and handwritten notes by scanning and converting them to digital files. Analysis of transcribed texts commenced with decontextualization, which is the process of becoming familiar with the data. This step involved reading through the transcribed text to obtain the sense of the whole, before and after the member checking process. Once the data had been reread and smaller units of meaning (nodes) identified, the researcher grouped data nodes and meaning units into categories.

This study defines meaning units as information derived from participant phrases and sentences aligned with the research questions and InTASC standards' competencies, using deductive reasoning. The researcher developed a coding list (see Table 4) of words and phrases identified (by frequency) namely: differentiation, positive experiences, negative experiences,

discipline referrals, co-teaching (mentoring), experience (prior experience with students with disabilities), and training/coursework. Explanations of each of the codes used by participants were developed to minimize a cognitive change during the process of analysis, to secure reliability (Morse & Richards, 2002). The researcher was able to run a word frequency query in the software to help find missing codes that contributed to critical themes. In the recontextualization phase that followed, the researcher reread the data alongside the final list of codes. Because of the categorization process that followed, themes emerged as codes which the researcher placed into categories. The researcher identified themes related to the research questions and subthemes related to InTASC subheadings. The researcher identified five themes and 15 subthemes which are presented in the section that follows.

Summary of Findings

The preservice teachers in the study demonstrated knowledge and understanding of the diversity of students with special needs in general education classrooms. Participants also demonstrated knowledge of the impact the needs of students with disabilities have on the teaching and learning process in rural general education classrooms. Preservice teachers demonstrated awareness of the adaptations and pedagogical shifts needed to include students with disabilities in the regular education classroom.

Overwhelmingly, the participants expressed similar views on their understanding of learner development, learning differences, and the learning environment as described by the performances, essential knowledge, and critical dispositions of the InTASC standards (2001). Additionally, participants positively rated their student teaching experience against the effective instructional practice requirements of the InTASC standards (2001). Effective instructional

practice in inclusive classrooms includes differentiated assessments and teaching, planning, and engaging instructional strategies, and the use of universal design for learning.

The preservice teachers expressed the need for modifications to coursework that provides a better balance between field experiences in inclusive classrooms and theoretical conceptions of inclusion. Analysis of the data revealed that the structure of preservice teacher preparation programs has a profound effect on teacher self-efficacy and student teaching experiences.

Further, participants reported varying amounts of time interacting with K–12 learner educational plans (IEP or 504). Preservice teachers explained that their student teaching experiences would have been better served if they received access to data about exceptional K–12 learner strengths, goals, modifications, and accommodations. Moreover, preservice general education teachers expressed concern about the level of support they received from mentor teachers and school personnel. Participants believed that conversations with mentor teachers about K–12 learners' needs and inclusive methods positively contributed to higher levels of self-efficacy and the quality of student teaching experiences. Overall, the results of the data analysis revealed themes that supported the research questions. Participants used similar words and phrases to describe their overall student teaching experiences.

The researcher examined codes for similarities and as a result, common themes emerged. The following section explains the identified themes and subthemes, as well as patterns observed, and understandings gleaned from coding. Constant comparison methodology was also used to compare and analyze data from all data collection instruments to also give the researcher an overall understanding of the data (InTASC surveys, semistructured interview responses, and field notes from nonparticipant observations).

According to a Merriam (2007), a case study allows for investigations consisting of multiple variables. As previously discussed, themes derived from meaning units that were coded and categories by frequency, aligned to InTASC standards (subthemes) and research questions (themes). The researcher noted recurrent ideas mentioned by participants (captured nodes), ensuring the categories that emerged were consistent (linking similar things together) but distinct from each other to avoid inconsistencies. In Table 4, the researcher presents identified codes that resulted in developed themes leading to higher levels of abstraction.

Table 4

Research Question & Related Codes

RQ 1		RQ 2		RQ 3		RQ 4	
Themes	Codes	Themes	Codes	Themes	Codes	Themes	Codes
Importance of inclusion	P, C, T, E, D,	Personal and environmental impacts	P, N, DR	General education teachers need more training and coursework involving field experience	P, N, E	Co-teaching and mentor teacher coaching	C, T, E

Note Key: D = differentiation, C = co-teaching, DR = discipline referrals, E = experience, N = negative experiences, P = positive experiences, T = training and coursework

Through deductive reasoning, the researcher looked for predetermined, existing ideas from the InTASC standards (Berg, 2001) and identified them as subthemes related to the research questions. This study describes subthemes as meaning units and codes derived from interview responses that convey lower levels of abstraction and are close to the text of

interviewee responses. Individually, subthemes do not convey rich meaning; however, the researcher was able to derive meaning from categorizing related subthemes into themes.

InTASC Standards 1–3 describe core preservice teacher performances, essential knowledge, and critical dispositions about learning and learner development. Participants demonstrated essential knowledge of learner development by showing an understanding of the importance of inclusion, differentiation, and promoting learners' growth. Several participants stated that inclusion is important yet challenging. Understanding that exceptional learners learn differently and committing to promote K–12 learners' growth and development, participants responded that while important, differentiation and universal design consumed much of the planning time and contributed too much of their frustrations. Participants also responded that inclusion was beneficial for the development of self-awareness and helped all learners (regular and special needs). Participants commented on the importance of developmentally appropriate learning experiences that take the learning needs of students with disabilities (especially learning and emotional disabilities) into account. The breakdown of themes and subthemes is presented in Table 5.

Table 5

InTASC Standards and Subthemes

Themes, subthemes, and participant comments

Theme 1: <u>Importance of inclusion</u>

      (a) Inclusion is challenging but necessary.

      (b) Differentiating materials is time-consuming.

      (c) Inclusion helps develop my self-awareness and everyone benefits.

Theme 2: <u>Training and coursework</u>

      (a) Coursework helped a lot.

      (b) More field experiences to observe actual inclusion.

      (c) Coursework did not help me.

Theme 3: <u>Co-teaching and mentoring</u>

      (a) Mentor teachers debrief about students with disabilities helped.

      (b) Access to IEPs (no access).

Theme 4: <u>Discipline referrals and support</u>

      (a) Discipline referrals are responded to days later or not effectively.

      (b) Para-educator helped me understand social-emotional behavior needs of some students.

      (c) More support from principal and mentor teacher needed in the moment.

      (d) The negative impact of not having a counselor in the building.

Theme 5: <u>Personal and environmental impacts</u>

      (a) Inclusive classroom experience helped in personal and professional development.

      (b) I would teach in an inclusive classroom again but with more support and resources.

      (c) Student teaching in an inclusive classroom was useful, but I have more to learn.

InTASC Standards 4–5 relate to preservice teachers' core understanding of the content they teach and ways they help K–12 learners' access and apply knowledge. The preservice teacher performances, essential knowledge, and critical dispositions center around valuing

flexible learning environments, utilization of various strategies, engaging learners, and connecting concepts to the real world. Preservice teachers explained that the student teaching experiences in inclusive classrooms informed their professional development.

Preservice teachers emphasized the time-consuming nature of differentiating materials based on learners' readiness and ability. Participants aligned content understanding with training and coursework, discipline referrals, and mentoring. Repeatedly, participants remarked that the amount of time involved in handling discipline issues took away from developing strong and engaging lessons. Some participants related the quality of lessons to the quality of debriefs with the mentor teacher and access to information about the K–12 learners with special needs (strengths, IEP goals, accommodations, and modifications). These ideas and meaning units are also aligned to preservice teacher performances, essential knowledge, and critical dispositions about classroom assessment (InTASC Standard 6), planning for instruction (InTASC Standard 7), and instructional strategies (InTASC Standard 8).

InTASC Standards 9–10 relate to comments made by participants about their professional learning and collaboration. As mentioned previously, participants strongly aligned the quality of their student teaching experience with mentor teacher debriefs and levels of support from school staff and paraprofessionals. Participants commented that while they felt ready to teach students with disabilities in the general education classroom, they realized from the student teaching experience that there was more to learn (see Table 5) and more practice needed in developing inclusive teaching methods.

Presentation of Data Results

This section presents the analysis of information, organized by instrument and research questions in which the themes emerged. Codes used during data analysis procedures are also

discussed. Themes are presented in support of answering the research questions. As detailed in Table 5, the themes are (1) importance of inclusion, (2) training and coursework, (3) co-teaching and mentoring, (4) discipline referrals and support, and (5) personal and environmental impacts.

Research Themes

Bandura (1997) asserted that individuals form self-efficacy beliefs by interpreting information regarding their capabilities. The InTASC Standards articulate what effective teaching and learning standards. Effective teaching holds educators to new levels of accountability for improved student outcomes. In the inclusive classroom, all students should achieve high learning outcomes. Disproportionate representation of minority students in special education is a lingering problem in the field sometimes caused by teachers' reaction to diversity in the classroom. In the section that follows the researcher discusses themes that emerged from coding triangulated data.

Theme 1: Importance of inclusion. In concert, participants in the study highlighted the importance of inclusion. The comments carried a theoretical understanding and moral position on inclusion. Statements made about inclusion included: "Inclusion is challenging but necessary." "Inclusion helps develop my self-awareness, everyone benefits." "I like having different students in the classroom; it is refreshing to see them all learning." "I would have it no other way, all children are beautiful and just because they have disabilities does not mean they should be left out." However, participants also commented on the challenges they experienced in their inclusive classrooms, the time-consuming nature of preparing an inclusive classroom (independently), and the level of support they received as issues involved with their student teaching experience. Several participants made statements such as, "Differentiation is time-consuming, but I believe inclusion works." One such participant explained:

I enjoyed my inclusive classroom because it is essential to have the visibility of

disabilities in the classroom that mirrors society. While inclusion comes with challenges

(especially classroom management challenges) but I believe it is essential that students

with disabilities are part of the learning.

Several participants responded more vigorously to questions relating general knowledge

about the theory of inclusive classrooms, and less enthusiastically when describing their

inclusive pedagogical practices during student teaching. Nevertheless, the participants seemed

informed with basic knowledge about inclusion and advocated for inclusion and its moral

imperative.

Theme 2: Training and coursework. An inclusive education survey course was

completed by 100% of the study participants. Nevertheless, responses from participants were

mixed regarding the impact of coursework on their student teaching preparation and future desire

to teach in inclusive classrooms. Some participants responded that coursework emphasized

concepts and historical perspectives of inclusion but did very little to inform them about the

practice or methods of inclusion. Yet, while some participants referred to coursework negatively,

others had the opposite response. Study participants did not all agree about the cause and effect

relationship between the quality of coursework experiences and the quality of their student

teaching experiences. "I do not think the course prepared me at all," remarked one participant.

Later, the same participant responding to a question about willingness to teach in inclusive

classrooms in the future and the student teaching experience stated:

My perspective on teaching to students with disabilities is to keep an open mind and roll

with whatever comes. I firmly believe that it is very important to have inclusive

classrooms. At my school, I have heard of instances where some students [with

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disabilities] have been dangerous. There were a few instances where they have had to

evacuate the classrooms because a student was throwing things and acting out of control.

However, while I am sure I am not adequately prepared to teach some students with

severe disabilities, I am a champion for inclusion. I enjoyed student teaching.

Another participant summarized the minimal impact of coursework by reflecting on the graduate

level course taken during the summer session. In retrospect, the student teacher believed the

coursework was too fast paced and did not lend to a firm understanding of how inclusion is

practiced in the general education classroom.

Conversely, several participants responded positively to the coursework while admitting

the structure of the field experience limited them. Some participants remarked that their field

experience grade levels and their student teaching grade levels were mismatched. Additionally,

participants commented on the amount of field experience (required 15 hours minimum). "More

field experiences to observe actual inclusion" was repeatedly mentioned by many participants.

Respondents also noted the need for more training about methods of teaching students with the

specific disabilities they are most likely to encounter. "I wish I was required to take at least one

more class. General education teachers need more than one survey class," remarked one study

respondent. Interviewees overwhelmingly believed that field experiences were inadequate in

exposing them to what they termed "true inclusion." The researcher defines true inclusion as

learning the methods in teaching in inclusive classrooms over learning the theory of special

education and inclusion.

For example, one participant who was able to recall methods and understandings learned

during coursework remarked about using an artifact created in a modification assignment in her

student teaching classroom. Another participant recalled developing a K–12 learner self-

assessing artifact for a learner with attention deficit hyperactivity disorder (ADHD), developed during coursework and used at home on a sibling with ADHD. The study participant recalled their experience using the artifact during student teaching:

> Green, yellow, red traffic light cards worked because my students who needed help assessing their understanding or communicating their level of frustration held up a traffic light color. Without them, I would know that my student was saying something to me, either "I need a break." Alternatively, "I do not get this." I told my mentor teacher about this resource in the winter quarter and she decided to try it.

Theme 3: Co-teaching and mentoring. Reflecting on co-teaching and mentoring during the student teaching experience, some of the participants indicated that they benefitted from conversations with mentor teachers about the K–12 learners with identified and suspected disabilities. Preservice student teachers spend over 100 hours during the fall and winter quarters (before full-time spring quarter student teaching), observing their mentors' teaching styles and co-teaching with them while developing their Washington required performance assessment, the edTPA. Notably, participants found conversations or debriefs with mentor teachers instrumental. One participant recalled feeling empowered by conversations with the mentor teacher because the mentor teacher had more experience with K–12 learners with disabilities. Another participant recalled when the mentor teacher stepped in to attend to a K–12 learner who was repeatedly yelling and off task, unwilling to participate in the learning activity. The language of the PDS agreements (described in Chapter 3) require mentor teachers to remain the classroom during student teaching, taking on the observer and co-teacher roles.

Additionally, participants remarked that access to the K–12 learner education plans (IEPs and 504s) had a positive or negative effect on their student teaching experience. Several

participants indicated that they had no access to the students' education plans and did not know about their IEP goals. Additionally, some study participants were included in the IEP process, while several were not. One participant mentioned attending an IEP meeting with some consultation prior, between the respondent and the special education teacher about the K–12 learner's present levels of academic and behavioral performance.

Theme 4: Discipline referrals and support. Two participants positioned classroom management and behavior foremost among student teaching challenges. The researcher's field notes confirmed management challenges faced by these student teachers. Both participants recalled writing formal discipline referrals directed to the principal's office. Ironically, neither participant was aware of the full extent of the referral process but remarked about a sense of ease they felt knowing the disruptive students were not in the classroom for a period.

According to the student teachers' responses, most students removed for discipline issues were boys with a documented education plan or suspected disability. Oddly the student teachers were unable to discuss K–12 learner accommodations and social or academic goals because they had limited access to IEPs or 504s. When asked to talk about the level of support they received, one participant remarked: "the para-educator helped me understand social-emotional behavior needs of some students."

Conversely, six participants responded that having support in the room (para-educator or mentor teacher) helped with classroom management and K–12 learner discipline. However, three participants commented on the disconnect between their expectations of the paraeducators' role and reality. In some cases, paraeducators merely ferried students with disabilities between specially designed instruction sessions and the general education classrooms. When asked whether they co-planned with the para-educator, the participants responded negatively.

Additionally, four participants placed in the same elementary school complained about the lack of support, specifically the lack of a counselor in the building.

One preservice teacher interning at middle school described the weekly use for discipline referrals as a response to disruptive behavior by learners who challenged the student teacher's classroom management procedures. Several learners identified as having ADHD and social-emotional problems. When asked to describe the impact of the referrals on the student teaching experience, the student teacher responded with frustration. The researcher noted that only two student teachers referenced the use of discipline referrals. Not surprisingly, the student teachers interned at the same middle school.

Similarly, several other study participants repeated remarks about the need for more support from school staff during student teaching. The researcher noted that preservice teachers who repeated these comments were student teaching in schools with current vacancies for positions such as special education teacher, school counselor, and full-time school psychologist. Participants rated these two occurrences as contributing negatively to their overall student teaching experience. As previously noted, participants complained about the lack of consultation on students' IEP goals. More significantly, the issue seemed to stem from administrators' beliefs that preservice student teachers were not required access to the K–12 learners' IEP and 504 at some student teaching locations.

Theme 5: Personal and environmental impacts. A critical disposition of Standard 2, learning differences (InTASC, 2001), is that student teachers believe all learners can achieve at high levels and prioritize helping each K–12 learner reach their full potential. Participants in the study had overwhelmingly positive attitudes about the idea of including all students in the classroom linked to the belief that all students can learn. However, when asked to reflect on their

readiness, student teachers responded that they needed more experience and more training to fully include students with disabilities. Participants also mentioned the lack of active and clear channels of support (knowing who to go to for what), negatively affected their student teaching experiences. Paradoxically, while some preservice teachers taught in multi-grade classrooms, they expressed negative attitudes to multi-grade teaching. From observation, the researcher noted that no more than two grades (e.g., second and third) were together in the same classroom, and class sizes were relatively small (ranging from 12 to 16) in multi-grade classrooms. "Inclusive classroom experience helped in personal and professional development," remarked one participant. "I would teach in an inclusive classroom again but with more support and resources," remarked another. These statements illustrate the general acceptance of inclusive classrooms by respondents. One of the most interesting statements made by participants involved having to deal with inclusive classrooms. To the researcher, participants were cognizant that they would teach in inclusive classrooms and were keeping an open mind about future experiences.

Presentation of the Data and Results

This section presents the results that answer research questions 1–4 based on analysis of InTASC survey results and semistructured interviews.

RQ1: How do general education preservice teachers view their role in inclusive classrooms? The first research question helps to determine whether preservice teachers value inclusion. The question illuminates their understanding of their role in inclusive practices. The researcher engaged in the Synthesis of responses spread across multiple InTASC questionnaire responses and the semistructured interview. Participants were asked to reflect on their student teaching experiences and the challenges and advantages of teaching in inclusive classrooms. The first three InTASC standards–learner development, learning differences, and learning

environments–indicate that student teachers must possess knowledge of how to cultivate inclusive learning environments that are welcoming and accepting of all learners. The classroom environment may include learners who traditionally have been left out or excluded from appropriate educational and learning opportunities due to their disabilities (InTASC, 2001). Student teachers are expected to be able to acknowledge and respond to learner differences and development.

Further, the useful inclusion of students with disabilities incorporates and expands equal access to the general education curriculum for all students. For student teachers, this means engaging in high leverage practices such as universal design, differentiation, and maintaining high expectations of all students. On the InTASC survey, most participants responded positively to having an understanding that students with disabilities may need accommodations, modifications, and adaptations to the general education curriculum. Only 10% of the participants disagreed or somewhat disagreed with the statement. However, while 90% of the participants indicated on the survey that they knew the important principles of federal legislation, many were only able to talk about a few principles of IDEA during the interview. Table 6 provides a summary of participant responses positively (strongly agree–somewhat agree) and negatively (somewhat disagree–strongly disagree) to statements on the learner and learning (Standards 1–3).

Table 6

Participant Rating of Standards 1–3 on the InTASC Survey

Q1. Understand the central concepts, tools of inquiry, and structures of the discipline taught.	Positively 90%	Negatively 10%
Q2. Understand how children learn and develop.	Positively 94%	Negatively 6%
Q3. Understand how students differ in their approaches to learning.	Positively 94%	Negatively 6%

Year to year increases in learner diversity mentioned previously, means teachers require

knowledge and skills to customize diverse K–12 learner experiences (InTASC, 2001). These

differences also include students who perform above grade level and below grade level, but do

not have a documented disability. The researcher observed preservice teachers engaging in

classroom management practices that included redirection, non-verbal cues, and reward systems.

Some K-12 learners were observed being pulled out for related services, or accompanied by a

para-professional in the classroom identified. Many of them identified as Hispanic.

Cultural and linguistic diversity is yet another issue that student teachers confront in the

classroom. Teachers need to recognize that all learners bring to their learning varying

experiences, abilities, talents, and prior learning, as well as language, culture, and family and

community values, which are assets that can be used to promote their learning (InTASC, 2001).

To do this effectively, teachers must have a deeper understanding of their frames of reference

(e.g., culture, gender, language, abilities, ways of knowing), the potential biases in these frames,

and their impact on expectations for and relationships with learners and their families (InTASC,

2001). Table 7 shows a summary of responses from the 13 interviewed participants on Standards 1–3. Most of the participants indicated positive thoughts about inclusion while admitting to facing challenges during student teaching.

Table 7

Summary Analysis of Interview Responses to Standards 1–3

Category	Frequency	%
Acceptance of students with disabilities	13	28.9
Acceptance of challenging students in the classroom	13	28.9
Understanding disability types and categories	10	22.2
Understanding inclusive pedagogies such as Differentiation and Universal Design	9	20.0
Total	45	100.0

In sum, the data characterizes general education preservice teacher self-efficacy during student teaching as high. Respondents reported high levels of confidence and displayed positive attitudes toward students with disabilities. Student teaching is the final component of preservice teacher education; therefore, student teaching practices play a determinant role in the effectiveness of general education preservice teacher preparation. The data also suggests that general education preservice teacher personal efficacy to teach K–12 learners with disabilities in inclusive classrooms can be characterized linearly. Further, the data suggests that interactions with external sources (mentor teachers and paraeducators) carried indirect positive effects on student teaching experiences and preservice teacher self-efficacy.

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RQ2: How do general education preservice teachers understand inclusion related to self-efficacy to teach in rural inclusive classrooms? Bandura (1997) emphasized the importance of a processing stage (cognitive), at which the information is interpreted and integrated. In the cognitive processing stage, as information is integrated, different weights are assigned to the sources. In the literature, teachers' attitudes toward inclusion are directly linked to their ability and willingness to execute inclusion-based classroom practices (Avramidis & Norwich, 2002) they are prepared for or have been modeled to them. Preservice teachers need to provide multiple approaches to learning for each student (InTASC, 2001). The crux of research question two speaks to how well preservice teachers understand inclusion as a theory and practice, and how many are willing to teach in inclusive classrooms in rural areas in the future. The data collected indicated mixed responses from participants. While every participant touted the importance of inclusion and a belief that students with disabilities belonged in the general education classroom, when faced with the statement, "I can design the learning environment so that the individual needs of students with disabilities are accommodated," 60% of the participants responded "somewhat disagree," 35% responded "somewhat agree," and 5% responded "agree."

InTASC Standard 2 (questionnaire items 6–9) focused on learning and development relating to research question 2. Based on the stated 7-point Likert scale, the competencies that respondents met by way of their responses are summarized using descriptive statistics in Table 8. Standard 2 was divided into four items addressing performances, essential knowledge, and critical dispositions identified as follows: *Understanding how children learn and develop*

a) I have a sound understanding of physical, social, emotional, and cognitive

development from birth through adulthood and I am familiar with the general

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characteristics of the most frequently occurring disabilities (preservice teachers need to possess this essential knowledge).

b) I can continually examine my assumptions about the learning and development of individual students with disabilities, and I have really high expectations for what students with disabilities can accomplish (preservice teachers need this critical disposition).

c) I recognize that students with disabilities vary in their approaches to learning depending on factors such as the nature of their disability, their level of knowledge and functioning, and life experiences (preservice teachers need essential knowledge/performance).

d) I am knowledgeable about multiple theories of learning (e.g., behavioral theory and behavior analysis, the socio-cultural theory of cognitive development) and research-based teaching practices that support learning (preservice teachers need this essential knowledge).

In sum, Standard 2 highlights the importance of the general education preservice teacher using understandings of students' differences and diverse culture to ensure inclusive learning environments (InTASC, 2001). From the data presented in Table 8, it is evident that a smaller standard deviation correlates with a higher concentration of responses around the mean.

Table 8

Summary of Analysis of Responses to InTASC Standard 2

InTASC Standard 2 Sub-standards	Mean	Standard deviation
A	5.42	0.60
B	6.42	0.71
C	5.14	0.56
D	5.5	0.58

RQ3: How do the impact of coursework and clinical practice in inclusive environments in a rural school district inform general education preservice candidates' attitude toward teaching in inclusive classrooms? In this study, general education preservice teacher candidates have completed one course in inclusive education. This coursework includes a minimum of 18 hours of field placement in an inclusive classroom. In the literature, studies indicate the existence of a positive relationship between teachers' positive attitudes toward inclusion and college coursework that includes a field experience component (Fulk & Hirth, 1994). Nevertheless, during the interviews, participants had mixed reactions about the effectiveness of their field experiences. Some participants commented that the field experience observations amounted to students with disabilities visiting the classroom for periods. One participant completed the graduate level inclusion course online during the summer. This participant commented that the summer course did not help develop a solid understanding of inclusion. Another participant commented, "I wish I had seen real inclusion," speaking about field experience in a fourth-grade classroom. Table 9 summarizes participant responses about coursework and field experience.

Table 9

Frequency Analysis of Responses about Coursework and Field Experiences

Field and coursework responses	Frequency
1. My field experience did not help because it was not inclusive.	5
2. My field experience helped a lot.	8
3. More field work to observe actual inclusion.	2
4. The coursework helped me a lot.	10
5. The coursework helped a little.	4
6. I took the course online. It did not help.	1

RQ4: How might contextual factors explain the development of general education preservice teacher self-efficacy? Standard 1, learner development (InTASC, 2001) advances teacher competencies, such as understanding how learners grow and develop. Teachers must also be able to recognize that patterns of learning and development vary. The teacher also accepts responsibility for promoting growth and academic achievements (InTASC, 2001). Contextual factors relate to teaching in rural school districts, as well as understanding the central concepts, tools of inquiry, and structures of grade level content being taught. Preservice teachers responded to performances, essential knowledge, and critical dispositions about Standard 1 on a survey in the following order:

    a) I have a solid base of understanding of the major concepts, assumptions, issues, and processes of inquiry in my subject matter content areas.

    b) I know which key concepts, ideas, facts, and processes in my content area students should understand at different grades and developmental levels.

c) I understand that students with disabilities may need accommodations, modifications, and adaptations to the general curriculum depending on their learning strengths and needs.

d) I know the major principles and parameters of federal disabilities legislation.

e) I know about and can access resources to gain information about state, district, and school policies and procedures regarding special education.

Based on the previously mentioned 7-point Likert scale, the competencies that respondents met by way of their responses is summarized using descriptive statistics in Table 10.

Table 10

Summary of analysis of responses to InTASC Standard 1

InTASC Standard 1 Sub-standards	Mean	Standard deviation
A	5.31	0.57
B	6.22	0.69
C	5.34	0.59
D	5.13	0.48
E	5.50	0.60

The mean of respondents who believe they have a good understanding of key concepts, ideas, facts, and processes in the content area they teach was highest. Notably, as the participants in this study are general education teachers, their responses are to be expected. Nevertheless, the ability of a teacher to acquire knowledge in a variety of research-based instructional strategies in their content area must align with their ability and willingness to teach students with disabilities in the general education classroom.

Summary

The purpose of this qualitative single case study was to explore how preservice general education teachers perceive inclusion and the role that their attitudes and beliefs about inclusion play in their overall student teaching experiences in a rural setting. The data analysis indicates that the teachers must have adequate content knowledge in their content areas of specialization and creating inclusive classrooms. Overall, preservice teachers had mostly positive experiences during student teaching in inclusive classrooms. Coursework, field experiences, access to student information (such as IEPs), support from mentor teachers, paraeducators, and school administrators, were considered sufficient to help increase self-efficacy. Overall, the data revealed that general education preservice teachers need to be prepared to teach in inclusive classrooms (Harvey, Yssel, Bauserman, & Merbler, 2010). The next chapter will associate the study's results with relevant research and provide an interpretation of findings. Implications and recommendations for further research will also be discussed.

Chapter 5: Discussion and Conclusion

This study investigated how preservice general education teachers perceive inclusion and the role of their attitudes and beliefs about inclusion have in their overall student teaching experiences in a rural setting. The investigation employed the approach of a single qualitative case study to investigate the phenomenon within the student teaching experiences in rural schools. The research findings will fill the gap of limited data from recent studies concerning preservice teachers' understanding of inclusion as related to their self-efficacy and attitude towards teaching in inclusive classrooms. Additionally, this study focuses on developing generalizations of existing theory, rather than deriving statistical measures about rural preservice teachers and inclusion. The study results can help stakeholders develop a greater understanding of the perceptions of preservice teachers as an indicator of their performance within inclusive classrooms, to tailor initial teacher education programs and rural student teacher is mentoring. This chapter provides a summary and a discussion of the results and their relationship with the literature. The limitations of the study and the implications for practice are also discussed with recommendations for further research, followed by the conclusions.

Summary of the Results

This single case study was conducted in rural southeastern Washington. The effects of preservice general education teachers' attitudes and beliefs about inclusion on their student teaching were studied using qualitative methodology. This section presents the summary of results about preservice teacher self-efficacy to teach in inclusive classrooms. The effect of attitude and beliefs on their student teaching experience is also discussed.

The study involved three phases of data collection. During the first phase, enrollment and demographic data captured through a Qualtrics developed survey and secured. According to

student teaching placement data obtained, student teachers interned in classrooms where the number of students with disabilities ranged from one to eight students who had a documented record of a disability plan (IEP or 504). The disability types varied and ranged across disability categories with a preponderance of students with specific learning disabilities, communication disorders, and social-emotional disabilities. Some classrooms were multi-grade classrooms, as described above.

In phase two, data was obtained using a Qualtrics developed and delivered survey designed around InTASC standards (2001), and in phase three data was obtained from an in-person semistructured interview preceded by nonparticipant observation of student teachers in their classrooms. Importantly, the InTASC standards were selected based on previous research and because they describe what every teacher should know and be able to do to create authentic learning environments and facilitate high learner outcomes. The standards are intended for both beginning teachers and seasoned teaching professionals. Preservice teachers in their final quarter of student teaching and teacher preparation, are merely three months away from starting their careers as full-time teachers.

The InTASC standards (2013) were grouped into four general categories to help convey their importance in teacher preparation and development. Learner development, learning differences, and learning environments (Standards 1–3) emphasize that in the field of education, the teaching and learning process begins with the learner.

> To ensure that each student learns new knowledge and skills, teachers must understand that learning and developmental patterns vary among individuals, that learners bring unique individual differences to the learning process, and that learners need supportive learning environments to thrive (InTASC, 2013, p. 8)

The teachers' content knowledge and application of content are emphasized in Standards 1– 2, requiring each teacher to demonstrate a deep understanding of the content and ability to differentiate for diverse learners. Assessment, planning for instruction, and instructional practices (Standards 6–8) address teachers' instructional decision-making considering the diversity of learners and learning styles. Also, the teachers' professional learning, leadership, and sense of ethics (Standard 9–10) address their cycle of continuous improvement and collaboration.

Purposefully, descriptive statistics were used in this study to describe and summarize the data derived from the InTASC-based surveys. Constant comparison methodology was also used to compare and analyze data from InTASC surveys, semistructured interview responses, and field notes from nonparticipant observations. As a result, several themes and subthemes emerged from the researcher's analysis of participant responses. For instance, participants responded similarly regarding the importance of inclusion during the interviews matched with positive responses on the InTASC survey and emerged as a major theme of the research. Similarly, the benefits of inclusion to the learning community, the time-consuming nature of differentiating material during student teaching, and challenging experiences with individual students with disabilities emerged as subthemes. Indeed, the frequency of responses about the challenges of inclusion rated above 50%.

Additional significant themes that emerged include the necessity of more general education teacher training or coursework about special education, instances of poorly defined co-teaching roles and support for student teachers during student teaching, and the effectiveness of discipline referrals. These themes negatively impacted the student teaching experiences, yet the student teachers reported high levels of efficacy about the importance of inclusive classrooms.

Some respondents indicated that the challenges experienced during student teaching were mere extensions of learning precursor expectations. However, access to student IEPs and 504 plans, regular mentor teacher debriefs and being included in IEP meetings and decisions making about students with disabilities also emerged as subthemes, relating to positive student teaching experiences. Further, the personal and environmental impact of inclusive student teaching experiences emerged as the last major theme. Specifically, several participants related the general education student teaching experience as one stop along their professional growth, while acknowledging that there was more to learn about including students with disabilities.

Certainly, data derived from the InTASC survey aligned with participant interview data as repeated themes emerged. The researcher was able to make several observations from the data. For example, the entire group of participants ranked themselves competent in only three out of the 10 standards; namely, understanding how students differ in their approaches to learning, use of effective communication, and planning of instruction based on knowledge of subject matter, students, the community, and curriculum goals. At least one participant ranked less than competent in at least one or more of the remaining standards. Based on individual survey responses, 90% of respondents agreed with statements that expressed competencies in all areas outlined by the standards. Additionally, participants overwhelmingly accepted students with disabilities in the classroom and equally accepted the challenge of students with disabilities according to data optioned from the InTASC survey and semistructured interviews. The researcher's field notes also aligned with the survey and interview data; however, the contribution of the observer effect remains unclear.

Field notes indicated that student teachers were communicating high expectations to their students, providing opportunities for collaborative work, working one-on-one with students

during guided practice, and using accommodations and modifications. However, the data and conclusions about preservice teacher attitudes and ability to perform were mixed and not well defined. In other words, while participants overwhelmingly ranked themselves competent in InTASC standards with competencies related to knowledge of learner and learner differences, some interviewees remarked that they were merely "going with the flow" while acknowledging that they had not been prepared to teach students with disabilities in inclusive settings.

Participants recorded the lowest means in knowledge and preparation of the major principles and parameters of federal disability legislation and disability types. The variation reinforces researcher observation and participant responses about primary disability legislation and etiology during the semistructured interviews. Conversely, participants recorded the highest mean in recognizing that specific disabilities do not determine how students learn and demonstrating acceptance of diverse learners. Surprisingly, participants rated interest in planning accommodations and modification for diverse learners positively, while reflecting negatively on the amount of time required to develop differentiated instructional materials and learning experiences. At the same time, some participants referred to artifacts developed during their college coursework that they found useful during student teaching.

Further, the researcher observed a strong alignment between participants' use of accommodations and modifications and the level of mentor teacher involvement and para-professional support. In classrooms where the mentor and student teachers engaged in regular debriefs and discussions about students with disabilities–their academic and social-emotional goals–student teachers used more accommodations and modifications. In contrast, some interviewees indicated feeling unsupported due to unfilled support staff roles, such as school counselor, absence of the mentor teacher, and inconsistent discipline referral processes, which

are a characteristic of rural schools. Alarmingly, although preservice student teachers communicated positive attitudes toward inclusion, many adopted a neutral position on their ability to engage learners regardless of disability. The researcher found their lack of commitment particularly puzzling, perhaps because the responses fell into an area not well defined by the data.

Discussion of the Results

The findings suggest that exposure to students with disabilities in the general education classroom during student teaching is a strong contributive factor regarding teacher self-efficacy. The data obtained through triangulation was sufficient to answer the research questions.

RQ1: How do general education preservice teachers view their role in inclusive classrooms? The study participants supported inclusive classrooms, acknowledged the challenges of inclusion, and overwhelmingly commented on the need for more coursework and support during student teaching. The participants' comments on inclusion were steeped in a moral imperative while they acknowledged the challenges that made them realize how unprepared they were to teach in inclusive classrooms. Several participants responded more vigorously to the questions related to general knowledge about the theory of inclusive classrooms and were less enthusiastic while describing the inclusive pedagogical practices they had been employing in student teaching.

InTASC survey. On the InTASC survey, most participants responded positively in terms of understanding that students with disabilities may need accommodations, modifications, and adaptions to their general education curriculum. Only 10% of the participants disagreed or somewhat disagreed with the statement. However, while 90% of the survey participants indicated that they possessed knowledge about the important principles of federal legislation, many were

able to talk about only a few principles of IDEA during the interview. In general, respondents reported high levels of confidence and displayed positive attitudes towards students with disabilities.

Field notes and interview. To get a more abundant sense of participant student teaching experiences, the researcher visited classrooms and conducted open-ended interviews after classroom visitations. The preservice teachers demonstrated knowledge regarding and understanding of the diversity of students with special needs in the general education classrooms. Several participants responded positively to the questions related to their future role in inclusive classrooms.

RQ2: How do general education preservice teachers understand inclusion related to self-efficacy to teach in rural inclusive classrooms? The study participants demonstrated a positive outlook for inclusive classrooms as they believed that it would quite likely impact their first job placement. However, 60% of participants reported they struggled with the adaptations of the learning environment so that the individual needs of students with disabilities.

InTASC survey. The respondents demonstrated an understanding of the key InTASC standards related to learner development and learning differences, instructional environments, and instructional strategies. Respondents indicated on the survey that they had knowledge of how learners grow and develop. Some respondents were able to recognize patterns of learning and development across the cognitive and social areas. Respondents were also able to identify cultural differences between K-12 learners and themselves. Statistical analysis of the averages concerning essential knowledge, critical dispositions, and performance indicated that participant responses were very close.

Field notes and interview. According to field notes and analysis of open-ended interview themes, respondents complained about the lack of support due to critical vacancies, mentor teacher absences and lack of mentor teacher–student teacher debriefs. At least 40% of respondents felt negatively affected by the realities of student teaching in a small rural school district. Some student teachers were allowed to work as intern substitute teachers. Surprisingly, participants who were affected negatively, related to the classroom experience as an exercise in personal and professional development. To the researcher, it seemed that participants had accepted teaching in rural schools.

RQ3: How do the impact of coursework and clinical practice in inclusive environments in a rural school district inform general education preservice candidates' attitudes toward teaching in inclusive classrooms? The results also show that coursework with embedded field experience in different inclusive and special education settings are also motivating factors behind teacher self-efficacy with respect to student teaching.

InTASC survey. The participants' responses were mixed regarding the impact of the coursework on their student teaching preparation and their future desire to teach in inclusive classrooms. This discrepancy can be attributed to the fact that preservice teachers usually completed their coursework in inclusive classrooms in different quarters and in different formats—online, hybrid, and traditional. The study participants did not unanimously agree on the cause-and-effect relationship between the quality of coursework experiences and the quality of their student teaching experiences.

Field notes and interview. When asked the impact of coursework and clinical practice in inclusive classrooms prior to student teaching, participant responses reflected that while many believed they had the knowledge about the purpose of an IEP and related services for example,

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their beliefs were guided more by theory than practice. Admittedly, some participants were engaged in the IEP process and consultant in IEP development, while others were not involved. When asked to describe the K-12 learner IEP goals some participants indicated that they had had no access to the K-12 learners' IEPs. Additionally, when asked to describe the impact of coursework on some believed that the coursework was too fast-paced and did not lead to a firm understanding of how inclusion is practiced in a general education classroom. It appeared that participants struggled with application of critical dispositions and skills such as designing, adapting, and delivering instruction to address each student's diverse learning strengths and needs.

RQ4: How might contextual factors explain the development of general education preservice teacher self-efficacy?

InTASC survey. As mentioned, the results also suggest that the contextual factors of teaching in rural settings, such as unfilled staff vacancies and the lack of support, positively and negatively affect preservice teacher experiences during student teaching. When asked to reflect on their readiness, the student teachers scoring lower on the InTASC survey.

Field notes and interview. Reflecting on co-teaching and mentoring during the student teaching experience, some participants indicated that they had benefited from conversations with their mentors while others commented that their mentor teachers were absent, which adversely affected their student teaching experiences. Some participants who did not think that such an environment hampered their future ability agreed that more training was needed to fully include students with disabilities. Overwhelmingly participants communicated the desire to acquire more knowledge and skills through professional development and learning of research-based instructional strategies related to their content area. They also believed that their student teaching

placements provided them opportunities to align with their ability and their willingness to teach students with disabilities in a general education classroom.

Discussion of the Results in Relation to the Literature

   Preservice teacher self-efficacy beliefs. Regarding the first research question, which looked at the issue of preservice teacher beliefs and perceptions about inclusion in the general education classrooms, the findings were broadly in harmony with those of the researchers reviewed in Chapter 2. Brown, Lee, and Collins (2015) for instance conducted a study of preservice teachers during student teaching, and their results showed that preservice teacher participants reported high levels of self-efficacy regarding classroom management and student engagement. McCray and McHatton's (2011) study of preservice teacher attitudes (during student teaching) towards the inclusion of students with learning disabilities in the general education classroom indicated positive attitudes and perceptions toward the inclusion of students with disabilities after coursework; 97.3% of the participants agreed with the inclusion of learners with specific learning disabilities in the regular education classroom. Admittedly, the data collected from many of the reviewed studies, which characterized preservice teacher self-efficacy during student teaching or after student teaching as high, was mainly gathered from surveys and other self-reporting instruments.

   Although these findings are broadly in line with those of the researchers discussed in Chapter 2, regarding the effect of coursework on preservice teacher self-efficacy (Kim, 2011; McKim & Velez, 2017; Shadreck, 2012), there are some areas in which they run against the conventional and widely accepted response that coursework (of any kind) related inclusion is indeed beneficial. Allday, Neilsen-Gatti, and Hudson (2013) studied 109 teacher preparation programs and concluded that while many teacher preparation programs provide instructions

which are related to the characteristics of disabilities and classroom management, "…few programs offer courses specifically related to differentiation of instruction for students with disabilities or collaboration between general and special education teachers (p. 298)."

Furthermore, the results of this study support the view that all teacher preparation programs which introduce general education teachers to inclusive classrooms go about it in different ways. For example, the effectiveness of undergraduate coursework in inclusion completed online, compared to the traditional brick-and-mortar learning environment with the requirement of adequate field experience, was analyzed in this study. Tangen and Beutel's (2017) findings, observing that preservice teachers' self-efficacy tends to be higher after their completion of coursework, seems to ring true in the overall analysis of the third research question.

Nature and mandate of inclusive classrooms. Another theme of earlier research which applies to this study is that teachers tended to develop a theoretical understanding of special education through their college coursework. Participants in this study communicated theoretical understandings through the use of distinct special-education language and vocabulary during interviews. Many participants made references to IDEA, IEPs, IEP meetings, accommodations, modifications, differentiation, and co-teaching.

The advocates of inclusion have long held to the following argument: at the most basic level, early integration promoted a sense of belonging and helped students with disabilities feel valued and included (Terzi, 2014; Theoharris, 2009). Additionally, as per Burke and Sutherland's (2004) research, respondent preservice teachers felt themselves to be more knowledgeable about inclusion than in-service teachers. Similar studies have also found that the participant preservice teachers had a positive outlook on inclusion. Only 10% of respondents had

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personal experiences of teaching a student with disabilities outside of their field experience in a special education classroom or an inclusive classroom. However, the results show that having personal and learning experiences of teaching people with disabilities did not affect participants' attitudes about inclusion.

Factors contributing to teacher self-efficacy. Overall, the participants adopted the view of inclusion as a moral imperative. This result is in line with Jeon and Peterson's (2003) research of early childhood teachers' and elementary preservice teachers' attitudes towards inclusion, which also showed that preservice teachers' experiences of teaching people with disabilities were not a significant predictor of their attitudes. Gao and Mager's (2011) study results on preservice teacher self-efficacy showed that high levels of teacher self-efficacy and positive attitudes towards inclusion were recorded as having higher levels in preservice teachers of senior status than in preservice teachers of a junior standing.

Similar to this study, Sharma, Loreman, and Forlin (2012) found that preservice general education teachers were willing to include students with disabilities in their classrooms. Jenkins and Ornelles (2007) compared preservice general education teachers with preservice dual education teachers (i.e., preservice teachers completing licensure in general education and special education) and found that preservice general education teachers recorded lower levels of efficacy than those who enrolled in a dual program. While this study only focused on one group of student teachers, the frequency of responses indicating the need for more coursework and training implied that there might be room to increase their levels of efficacy over time.

Limitations

Participants. The limitations of this study serve as good starting points for further research. Specifically, two features of the research design may affect the generalizations borne

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out of the research findings — time and sample size. The study was completed during the last quarter of student teaching. The short time frame meant that the results could account as a snapshot of one period. A longitudinal study would be better suited to develop a greater understanding of general education preservice teachers in inclusive classrooms over time. The researcher was only able to make one or two visits to the student teaching classroom. Non-participant observations were included in the study design because at least three data-collection procedures were used to gather data (Kimchi, Polivka, & Stevenson, 1991) through the method of triangulation. The analysis of observation notes was more detailed for some participants than others, with a direct relation to the uneven number of observations obtained per participant.

Research method. Second, the convenience sampling strategy was used to identify those participants who were general education preservice students or had a senior status, had enrolled in student teaching, and had completed the coursework regarding inclusion. Consequently, the number of participants in the target population was less than 30 and about half volunteered to participate in the study. The sample did not provide a balance of participant differences as the respondents were mostly White and female. It is important to note, however, that the lack of a larger study population did not limit the ability to generalize results as the results thoroughly explain the case of the research.

Study design. Additionally, the researcher decided to limit the amount of time spent in the classrooms conducting non-participant observations due to the threat of observer effect and selectivity. Observer effect refers to the impact of the researcher's presence on preservice teachers' and students' actions (Liu & Maitlis, 2010). Selectivity is related to the length of the data-gathering period. Admittedly, because of the short nature of the study period the researcher

was unable to conduct non-participant observations multiple times and over a more extended period.

Implications of the Results for Practice, Policy, and Theory

      Implications for teacher preparation and practice. This study's conclusion should offer suggestive evidence to aid the training of preservice general education teachers. The decisions that preservice general education teachers make in inclusive classrooms related to their preparation and support. As the results show, the more time preservice student teachers spend in inclusive classrooms before student teaching, and the more time they spend with mentor teachers during student teaching, the higher their sense of self-efficacy about teaching in inclusive classrooms in the future. General education preservice teachers, in this study, indicated that they were not adequately provided with inclusive methods of practice although they were confident in their understanding of inclusive content knowledge. Teacher preparation programs should note the importance of inclusion content in courses especially instructional methods courses. The results also show that study participants preferred coursework comprised of structured field experiences. In response to the research questions, the data has shown that field experiences serve as opportunities for preservice teachers to develop their personal and practical knowledge on the task of teaching in inclusive classrooms. According to the InTASC questionnaire, the participants believed that they had met most of the competencies but needed more training on the competencies related to inclusive practices and instructional methodology. Teacher preparation programs should emphasize the widely accepted InTASC standards in their coursework.

      Implications for the policy and practice of mentoring. This study also supports the argument in favor of a change in the role of the mentor teacher during student teaching. Mentor teachers possess practical knowledge about teaching in inclusive classrooms, which

complements the largely theoretical knowledge of student teachers. Additionally, mentor teachers have been involved in the development of educational goals, modifications, and accommodations for students with disabilities in general education classrooms. In this regard, the mentor teachers' role in the inclusive student teaching classrooms in rural school districts should extend far beyond "facilitating socialization of student teachers into the teaching profession" (Maphalala, 2013, p. 21). Similar to the Davis and Fantozzi's (2016) study, none of the preservice general education teachers in this study wanted to socialize with their mentor teachers. Instead, they wanted the mentors to be present and to deliver critical information about students with disabilities. Indeed, this calls for mentors to also function as instructional coaches. Butler and Cuenca (2012) conceptualized the role of mentors as instructional coaches who "observe and evaluate instructional practice and provide constructive feedback aimed at improving the methods and techniques of preservice teachers" (p. 296). Teacher preparation programs should provide support for mentor teacher and preservice teacher collaboration by accomplishing tasks such as daily debriefs about instructional content, differentiation techniques, universal design, and accommodations and modifications for students with disabilities in general education classrooms.

Implications for theory. As the above results show, the theoretical impacts of teacher self-efficacy are consistent with Bandura's (1997) social cognitive theory. Cognitive, affective, and biological factors affect what preservice student teachers believe about themselves and their ability to teach in inclusive classrooms and also influences the choices that they make. Bandura (1997) explained why self-efficacy beliefs are related to preservice teachers; he postulated that beliefs about self-efficacy are informed from four primary sources: mastery experiences (experiences of performance), vicarious experiences (observing models, comparison with

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others), verbal persuasion and feedback about performance, and physiological states that include emotional and biological (physiological) indicators. Of these, mastery experiences probably have the most potent influence on the fostering of efficacy. Preservice teachers rated mastery experiences during coursework and field experience before student teaching as a high contributor to their overall student teaching experience.

Additionally, preservice teachers who engaged in daily debriefs with mentor teachers about students with disabilities in the classroom and who claimed to have attended IEP meetings also rated their student teaching experience more positively. Bandura's social cognitive theory highlights the importance of vicarious experiences and their impact on learning and efficacy. The emotional state of a preservice teacher during student teaching experiences and her/his social interactions with students with disabilities, mentor teachers, support staff, and parents can also heighten/weaken self-efficacy beliefs.

Undoubtedly, student teachers with support and who initiated fewer discipline referrals during student teaching responded more positively to the student teaching experience in inclusive classrooms. In his concept of social learning theory, Bandura (1986) highlighted the interplay between the cognitive, affective, and biological factors, suggesting that student teaching experiences are not purely and independently shaped by any one of the elements. Regarding teacher behaviors during student teaching, efficacious teachers were found to persist with struggling students and criticize less after a student would give incorrect answers (Gibson & Dembo, 1984). The results of this study relate to Bandura's (1997) argument for the transfer of efficacy. According to Bandura (1997), "the level of generality of the efficacy items within a given domain of functioning varies depending on the degree of situational resemblance and foreseeability of task demands" (p. 13). Many preservice teachers identified the student teaching

experience as a learning experience that would aid their subsequent work with students with disabilities in the future.

Recommendations for Further Research

This study investigated how preservice general education teachers perceived inclusion and the role that their attitudes and beliefs about inclusion play in their overall student teaching experiences in a rural setting. As discussed above, the limitations of this study can are good starting points for further research. Additionally, although these protocols are likely to change, in the future, any researcher might view qualitative studies involving larger populations as beneficial. Student teacher respondents in this study highlighted the importance of rich experiences in inclusive classrooms before student teaching and help redefine the role of mentor teachers. In the future, the researcher intends to investigate which of these options benefits preservice general education teachers more. Moreover, future research will be needed to help further define the role of mentor teachers, especially given the challenges associated with a rural school district that were identified in this study.

Another avenue for further investigation involves the study of preservice teachers who are already in their first year of training (as in-service teachers) in inclusive classrooms and the academic outcomes of their students. The information gathered from such a longitudinal study will inform the effectiveness of general education preservice teacher preparation in rural communities. Notably, the participants in this study were predominantly female. Further investigation of male preservice teachers in rural areas is necessary. Additionally, this study's results support the literature which indicates that field experience and previous experiences with students with disabilities yields higher self-efficacy with respect to teaching in inclusive

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classrooms. However, future research may be needed to narrow down the type of field experience that is most beneficial to students.

Conclusion

In conclusion, this study has provided definitive evidence of preservice general education teachers' self-efficacy for teaching students with disabilities during student teaching. Bandura (1986) explained an individual's perceived self-efficacy as "judgments of how well one can execute courses of action required to deal with prospective situations" (p. 122). This study has shown that preservice teachers' judgments about their capability or self-efficacy relate to their perceptions about their preparation and about how to teach in the inclusive classroom settings by employing the principles encapsulated in the InTASC standards. Furthermore, this study is important because there are still a limited number of studies that have been conducted to grapple with preservice teachers' self-efficacy concerning teaching students with special needs.

Federal law mandates that students with disabilities have access to the general education curriculum in the least restrictive environment. Student teachers are mere months away from their first teaching assignments. Furthermore, the quality of student teaching experiences were uneven and punctuated by multi-grade classrooms, the lack of adequate special education personnel, the disproportionate representation of culturally and linguistically diverse students in special education, and the many recurring issues that were magnified by rural special education researchers (Pennington, 2017).

The first research question investigated how preservice teachers viewed their role in inclusive classrooms. Overwhelmingly, the participants in this study responded positively to inclusive classrooms from a moral imperative. They highlighted the gains and benefits to the general education social dynamic and regular students as well as for students with special needs.

It is important to note that this study focused on the language of attitudes toward inclusion and self-efficacy interchangeably. Overall, the attitudes were positive, and preservice teachers also saw the personal benefits of student teaching in inclusive classrooms despite the challenges.

The second research question investigated how general education preservice teachers understood inclusion concerning their student teaching environment. The respondents completed the same amount of coursework on special education-related knowledge and methods before going into student teaching. The quality of the mentor teacher's instructional coaching and the preservice teacher's prior experience in teaching people with disabilities before student teaching informed the students' high levels of self-efficacy in inclusive classrooms. Preservice teachers demonstrated knowledge about special education laws, accommodations and modifications, but they admittedly lacked training on how to implement them in the student teaching classrooms.

The third research question rested on the impact of coursework and field experience (before student teaching) on preservice general education teachers' self-efficacy. Student teachers with more experience with students with disabilities before student teaching rated themselves higher on the InTASC competencies. Concerning teaching students with disabilities, the majority of preservice teachers felt prepared in some areas and unprepared in others. Most student teachers acknowledged that there was a lot more to learn and saw the student teaching experience as a learning experience that would benefit them later. Another goal of this study was to facilitate an increased awareness of preservice general education teachers' role in inclusion. Indeed, teacher preparation programs and teacher educators need further research to understand the critical points in teacher development, such as how teachers' self-efficacy beliefs are affected during student teaching. In this study, participants remarked that more coursework and field

experiences might enable one to gain a deeper understanding of the content and the skills of inclusive practices, such as instructional strategies, for a diverse range of students.

The final research question is related to student teaching in a rural school district. The study participants remarked negatively about the notion of getting support from paraprofessionals, school personnel, and mentor teachers. Some of them acknowledged that their school lacked critical staff such as school counselors and school psychologists. Overall, the data revealed that general education preservice teachers need preparation before starting to teach in inclusive classrooms.

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Appendix A: Preservice General Education Teacher Demographics Survey

Please select the answer that best describes you.

1. With which gender do you identify?
   a. Male
   b. Female
   c. Prefer not to answer

2. What is your age?
   a. 18
   b. 19
   c. 20
   d. 21
   e. 22
   f. 23
   g. 24
   h. 25 and older
   i. Prefer not to answer

3. Which racial group best describes you?
   a. White/Caucasian
   b. Hispanic/Latino
   c. Black/African American
   d. Black/non-African American
   e. Asian
   f. Native American
   g. Other/Not Listed
   h. Prefer not to answer

4. How many special education/inclusive education courses have you taken?
   a. 0
   b. 1
   c. 2
   d. 3
   e. Prefer not to answer

5. What is your major?
   a. Elementary Ed
   b. Secondary Ed
   c. Dual Major
   d. Not Applicable/Not Listed
   e. Prefer not to answer

6. Which of the following best describes your clinical experience/student teaching placement?
    a. Elementary (K-5)
    b. Middle Grades (6-8)
    c. High School (9-12)
    d. Prefer not to answer

Appendix B: Interview Protocol

Name or Pseudonym of Teacher Candidate: _____

Time and Length of Interview: _____

Date and Location of Interview: _____

Semistructured Interview Questions

- Describe in detail your personal experience working with students with special needs before student teaching and during student teaching (at your placement school).

- How do you see your future role in developing inclusive classrooms that serve students with disabilities?

- What techniques, methods, and strategies have you found to be effective in accommodating for students with special needs?

- Please reflect on some of the challenges and advantages to using an inclusive classroom at your school.

- Describe the coursework and training you have received regarding inclusion.

- What inclusion supports have you received? Why were these supports helpful?

- Is there anything I have not asked you that you believe would be important to know about your experience with inclusion as a classroom teacher?

Appendix C: Member Checking

Member checking is viewed as a technique for establishing the validity of an account and will serve as a debriefing method after data has been collected from interviews and observations. This can be done both formally and informally as opportunities for member checks may arise during the normal course of observation and conversation.

Transcripts are supposed to document natural conversational language, which rarely consists of complete and grammatically correct sentences. Your contributions are worthy, valid and respected and your signature and voice are of higher value than the accuracy of the grammar depicted in the transcript (Carlson, 2010). However, any quotes used in the research will be grammatically edited for professional purposes.

I, _____, would / would not like to listen to the audio of the interview.

Member Checking Discussion: Please indicate the question(s) and page number(s) you would like to edit/revise.

Question or Page Number:

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Suggested Changes:

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I, _____, agree or disagree that the transcript reflects my views, feelings, and experiences, and that accuracy and completeness are or are not affirmed.

Appendix D: Consent Form

Research Study Title: Rural general education preservice teachers' perceptions of inclusion: A study of candidates' self-efficacy and attitude toward teaching in inclusive classrooms
Principal Investigator: Neria Sebastien
Research Institution: Concordia University-Portland

Purpose and what you will be doing:
The purpose of this survey is to investigate rural preservice general education teachers' perceptions about their ability to teach students with disabilities in inclusive classrooms during student teaching. I expect 12 - 15 volunteers. No one will be paid to be in the study; however, and participants will not receive extra credit for participation. I will begin enrollment on 04/02/2018 and end enrollment on 04/09/2018.

To be in the study, you will complete a survey by responding to questions about teaching in inclusive classrooms. You must have been previously enrolled in *EDUC/SPED 421 Principles of Teaching and Learning in Inclusive Classrooms* before your student teaching quarter and currently enrolled in Student Teaching Seminar (EDUC 470/471). You may also be randomly invited to participate in a one-on-one interview to review your responses and respond to additional open-ended questions. Doing these things should take less than 45 minutes of your time.

I will be identifying you by name at the beginning of data collection in order to give you credit for your comments and interview participation. Since the research data will not be archived, future researchers may not quote your comments, interview and/or performance in their own studies.

Risks:
There are no risks to participating in this study other than providing your information. However, I will protect your information. Any personal information you provide will be coded so it cannot be linked to you. Any name or identifying information you give will be kept securely via electronic encryption or locked inside my office in Smith Hall. When I look at the data, none of the data will have your name or identifying information. I will only use a secret code to analyze the data. I will not identify you in any publication or report. Your information will be kept private at all times and then all study documents will be destroyed 3 years after the conclusion this study.

Benefits:
Information you provide will help teaching and learning in inclusive classrooms. You will receive a $15 gift card for participation.

Confidentiality:

This information will not be distributed to any other agency and will be kept private and confidential. The only exception to this is if you tell us abuse or neglect that makes us seriously concerned for your immediate health and safety.

Right to Withdraw:

Your participation is appreciated, but we acknowledge that the questions we are asking are personal in nature. You are free at any point to choose not to engage with or stop the study. You may skip any questions you do not wish to answer. This study is not required and there is no penalty for not participating. If at any time you experience a negative emotion from answering the questions, we will stop asking you questions.

Contact Information:

You will receive a copy of this consent form. If you have questions you can talk to or write the principal investigator, Neria Sebastien at [email redacted]. If you want to talk with a participant advocate other than the investigator, you can write or call the director of the [location redacted] institutional review board, [name and contact information redacted] or Dr. OraLee Branch (email obranch@cu-portland.edu or call 503-493-6390).

Your Statement of Consent:

I have read the above information. I asked questions if I had them, and my questions were answered. I volunteer my consent for this study.

_____   _____

Participant Name   Date

_____   _____

Participant Signature   Date

_____   _____

Investigator Name   Date

_____   _____

Investigator Signature   Date

Appendix E: InTASC-Based Survey Instrument

Reprinted with permission from Jenkins & Ornelles (2007)

Instructions
On the blank line, please place the number indicating your reaction to every item according to how much you agree or disagree with each statement. Please provide an answer for every item.

Strongly Agree	Agree	Agree Somewhat	Neutral	Disagree Somewhat	Disagree	Strongly Disagree
7	6	5	4	3	2	1

1. *Understanding the central concepts, tools of inquiry, and structures of the discipline(s) taught*

   _____ **a)** I have a solid base of understanding of the major concepts, assumptions, issues, and processes of inquiry in my subject matter content areas.

   _____ **b)** I know which key concepts, ideas, facts, and processes in my content area students should understand at different grades and developmental levels.

   _____ **c)** I understand that students with disabilities may need accommodations, modifications, and/or adaptations to the general curriculum depending on their learning strengths and needs.

   _____ **d)** I have knowledge of the major principles and parameters of federal disabilities legislation.

   _____ **e)** I know about and can access resources to gain information about state, district, and school policies and procedures regarding special education.

2. *Understanding how children learn and develop*

   _____ **a)** I have a sound understanding of physical, social, emotional, and cognitive development from birth through adulthood and I am familiar with the general characteristics of the most frequently occurring disabilities.

   _____ **b)** I can continually examine my assumptions about the learning and development of individual students with disabilities and I have realistically high expectations for what students with   disabilities can accomplish.

   _____ **c)** I recognize that students with disabilities vary in their approaches to learning depending on factors such as the nature of their disability, their level of knowledge and functioning, and life experiences.

___ **d)** I am knowledgeable about multiple theories of learning (e.g., behavioral theory and behavior analysis, socio-cultural theory of cognitive development) and research-based teaching practices that support learning.

3. *Understanding how students differ in their approaches to learning*

___ **a)** I can build students' awareness, sensitivity, acceptance, and appreciation for students with disabilities who are members of my classroom, school, and community.

___ **b)** I recognize that a specific disability does not dictate how an individual student will learn. (One size does not fit all).

___ **c)** I understand that a disability can be perceived differently across families, communities, and cultures and I seek to understand and use these insights when working with students and families within their cultural communities.

___ **d)** I understand that lack of attention to cultural, ethnic, gender, and linguistic differences can lead to inappropriate assessment of students, over- and under identification of students for special education services, and inappropriate instruction of students.

4. *Understanding and using a variety of instructional strategies*

___ **a)** I have a shared responsibility for the education of students with disabilities; thus I can work collaboratively and individually to provide effective instruction for students with disabilities.

___ **b)** I understand how different learning theories and research contribute to effective instruction for students with disabilities.

___ **c)** I can use research-based practices including explicit instruction and planned maintenance and generalization to support initial learning and generalization of concepts and skills for students with disabilities.

___ **d)** I understand that it is particularly important to provide multiple ways for students with disabilities (and all students) to participate in learning activities.

___ **e)** I can provide a variety of ways for students with disabilities to demonstrate their learning.

___ **f)** I can adjust my instruction in response to information gathered from ongoing monitoring of performance and progress of students with disabilities.

___ **g)** I can use strategies that promote the independence, self-control, and self-advocacy of students with disabilities.

___ **h)** I expect and support the use of assistive and instructional technologies to promote learning and independence of students with disabilities.

5. *Using an understanding of individual and group motivation and behavior*

_____ **a)** I can identify the interests and preferences of students with disabilities and use this information to design activities that encourage students with disabilities to make positive contributions to the learning community.

_____ **b)** I can help students with disabilities develop positive strategies for coping with frustrations in the learning situation that may be associated with their disabilities.

_____ **c)** I can take deliberate action to promote positive social relationships among students with disabilities and their age-appropriate peers in the learning community.

_____ **d)** I can recognize factors and situations that are likely to promote (or diminish) intrinsic motivation, and create learning environments that encourage engagement and self-motivation of students with disabilities.

_____ **e)** I can participate in the design and implementation of individual behavioral support plans and be proactive in responding to the needs of individual students with disabilities within the learning community.

6. *Using knowledge of effective verbal, nonverbal, and media communication technologies*

_____ **a)** I have knowledge of the general types of communication strategies and assistive technologies that can be incorporated as a regular part of my instruction to benefit students with disabilities.

_____ **b)** I can collaborate with speech/language pathologists and other language specialists to identify the language and communication skills that need to be developed in students with disabilities, and can work cooperatively to teach those skills across settings.

_____ **c)** I understand that linguistic background has an impact on language acquisition as well as communication content and style and I can use this knowledge to interact with and plan instruction for students with disabilities.

_____ **d)** I can provide multiple opportunities to foster effective communication among students with disabilities and other members of the classroom as a means of building communication and language skills.

_____ **e)** I am sensitive to the verbal and non-verbal messages I may convey to students with disabilities and I can monitor the messages to ensure their positive impact on students with disabilities.

7. ***Planning instruction based on knowledge of subject matter, students, the community, and curriculum goals.***

    _____ **a)** I can contribute my expertise as a member of a collaborative team to develop, monitor, and periodically revise individualized educational plans for students with disabilities.

    _____ **b)** I can plan ways to modify instruction, as needed, to facilitate positive learning results within the general curriculum for students with disabilities.

    _____ **c)** I can collaborate to plan instruction related to expanded curriculum in general education classrooms for students with disabilities who require such curriculum.

    _____ **d)** I can design the learning environment so that the individual needs of students with disabilities are accommodated

    _____ **e)** I can monitor student progress and incorporate knowledge of student performance across settings into the instructional planning process.

8. ***Understanding and using formal and informal assessment strategies***

    _____ **a)** I understand the purposes, strengths, and limitations of formal and informal assessment approaches for making eligibility, placement, and instructional decisions for students with disabilities.

    _____ **b)** I can use a variety of assessment procedures to document students' learning, behavior, and growth within multiple environments appropriate to the student's age, interests, and learning.

    _____ **c)** I can collaborate with others to incorporate accommodations and alternate assessments into the ongoing assessment process of students with disabilities when appropriate.

    _____ **d)** I can engage all students, including students with disabilities, in assessing and understanding their own learning and behavior.

    _____ **e)** I understand that students with disabilities are expected to participate in district and statewide assessments and that accommodations or alternate assessments may be required when appropriate.

9. ***Being a reflective practitioner who continually evaluates the effects of his/her choices and actions on others***

    _____ **a)** I can regularly use reflection and evaluation strategies to reflect on how individual students with disabilities are functioning in the classroom and how alternative instructional decisions and interactions might influence the student's progress or behavior.

    _____ **b)** I can continually challenge my beliefs about how students with disabilities learn and how to teach them effectively.

_____ **c)** I can actively seek out current information and research about how to educate students with disabilities, including information that will help me understand the strengths and needs of students with disabilities.

_____ **d)** I can reflect on the potential interaction between a student's cultural experiences and his/her disability, and regularly question the extent to which I may be interpreting the student's responses wrongly (i.e., not based on the student's culture).

10. ***Fostering relationships with school colleagues, families and agencies in the larger community***

_____ **a)** I can share instructional responsibility for students with disabilities and can work to develop well-functioning collaborative teaching relationships.

_____ **b)** I understand the purposes/roles of, and am an effective member of, the different types of teams within the special education process.

_____ **c)** I understand the roles and responsibilities of paraeducators and other paraprofessionals and can collaborate with these staff members to foster the safety, health, academic and/or social learning of students with disabilities.

_____ **d)** I can accept families as full partners in planning appropriate instruction and services for students with disabilities.

Appendix F: Statement of Original Work

The Concordia University Doctorate of Education Program is a collaborative community of scholar-practitioners, who seek to transform society by pursuing ethically-informed, rigorously- researched, inquiry-based projects that benefit professional, institutional, and local educational contexts. Each member of the community affirms throughout their program of study, adherence to the principles and standards outlined in the Concordia University Academic Integrity Policy. This policy states the following:

Statement of academic integrity.

As a member of the Concordia University community, I will neither engage in fraudulent or unauthorized behaviors in the presentation and completion of my work, nor will I provide unauthorized assistance to others.

Explanations:

What does "fraudulent" mean?

"Fraudulent" work is any material submitted for evaluation that is falsely or improperly presented as one's own. This includes, but is not limited to texts, graphics and other multi-media files appropriated from any source, including another individual, that are intentionally presented as all or part of a candidate's final work without full and complete documentation.

What is "unauthorized" assistance?

"Unauthorized assistance" refers to any support candidates solicit in the completion of their work, that has not been either explicitly specified as appropriate by the instructor, or any assistance that is understood in the class context as inappropriate. This can include, but is not limited to:

- Use of unauthorized notes or another's work during an online test
- Use of unauthorized notes or personal assistance in an online exam setting
- Inappropriate collaboration in preparation and/or completion of a project
- Unauthorized solicitation of professional resources for the completion of the work.

Statement of Original Work (Continued)

I attest that:

1. I have read, understood, and complied with all aspects of the Concordia University–Portland Academic Integrity Policy during the development and writing of this dissertation.

2. Where information and/or materials from outside sources has been used in the production of this dissertation, all information and/or materials from outside sources has been properly referenced and all permissions required for use of the information and/or materials have been obtained, in accordance with research standards outlined in the *Publication Manual of The American Psychological Association*

Neria Sebastien
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Digital Signature

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Name (Typed)

4/17/2019
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Date