THE IMPACT OF THE NATIONAL BOARD FOR PROFESSIONAL TEACHING STANDARDS PROCESS ON SPECIAL EDUCATORS: A MULTI-METHODS PHENOMENOLOGICAL STUDY

by

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A DISSERTATION

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ABSTRACT

In the United States, educational reform has focused on teachers and their responsibility for student achievement. Hence, the development of the National Board for Professional Teaching Standards (NBPTS) to provide a national system of recognition for teachers that will transform and unify the teaching profession (Hamsa, 1998). The NBPTS' mission in education is to “maintain high and rigorous standards for what accomplished teachers should know and be able to do, provide a national voluntary system certifying teachers who meet these standards, and advocating related education reforms to integrate National Board Certification (NBC) in American education and to capitalize on the expertise of NBPTS certified teachers” (NBPTS, 2001, p. v).

In 1994, the NBPTS created a committee of special educators to develop national standards to define professional growth and contemporary practice in the field of special education in accordance with the Five Core Propositions of the NBPTS. The changing role of the special educators in educational reform has forced special educators to seek alternative forms of professional development to meet the needs of the diverse population of students with disparate needs in the classroom. Current research on the use of NBPTS certification process as appropriate professional development has proven that the certification process is a viable means of maintaining professional knowledge for the general educator. However, there is minimal research on the impact of the NBPTS certification process has on special educators and the students that receive special education services.
This study is a mixed methods study that explored the use of the NBPTS process as an appropriate mode of professional development for special educators outside of the traditional workshop model of professional development. Models of professional development are discussed, features of professional development are explored, professional development for special educators is examined, and the study is situated within the theoretical framework of Constructivism Theory. The NSDC Standards Assessment Inventory-2 survey (see Appendix A) was administered in addition to demographic information collected. The qualitative portion of the study engaged NBPTS Exceptional Needs recipients in a voluntary interview to determine their affective experience in regard to the NBPTS certification process.
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CHAPTER 1
INTRODUCTION

Historically, special education in the United States has received a considerable amount of political attention, beginning with the *Education for Handicapped Children Act* (EHA, 1975) and culminating with the *No Child Left Behind Act* (NCLB, 2002). The continuum of education, from primary education to teacher preparation programs, has received a substantial amount of criticism as a consequence of legislative initiatives. Legislative initiatives have redefined the teacher’s place in the classroom, as described by Epstein-Jannai (2001), where the classroom is no longer a personal place with boundaries unconstrained by pedagogy but a physical place dependent upon student achievement as measured by test scores and legislated by politicians.

Research on teaching indicates that student achievement is dependent on the quality of teacher ability in the classroom (Blackwell & Diez, 1999; Brownell, Sindelar, Bishop, Langley, & Seo, 2002; Darling-Hammond, 2003; Garet & Porter, 2001; Laczko-Kerr & Berliner, 2002). Given the current emphasis on student outcomes, teacher competence has become the focal point of political discussion and research in education. Teacher quality is an intricate concept requiring information and expertise possessed by an educator and the ability to use that foundation in leading students to acquire and use knowledge (Kaplan & Owings, 2002a).

Through research on teacher aptitude and student achievement, paradigms for teacher growth have developed with the goal of fostering student achievement (Billingsley, 2005; Glasser, 1993; Kaplan & Owings, 2002b). However, the *No Child Left Behind Act* (NCLB, 2002) defines a highly qualified teacher as one who holds a bachelor’s degree, has obtained state
certification and licensure, and has demonstrated state competency in each core academic subject taught. In addition to the NCLB (2002) requirements, Kaplan and Owings (2002a) and Glasser (1993) opined that accomplished educators must develop their professional skills beyond the federal and state certification requirements, which represent minimum degree ability.

The development of effective educators beyond state certification requirements is multi-dimensional. According to Kaplan and Owings (2002a), educators require development in the areas of classroom management, classroom environment design, curriculum, planning and instruction, and assessment administration and use. Glasser (1993) concurred with Kaplan and Owings that capable educators also develop themselves professionally. Darling-Hammond (2003) defined quality educators as diagnosticians who learn about learning and can reciprocate their knowledge into their classroom toward enhanced student achievement. The NCLB Act (2002) required the development of quality educators through professional development; however, no specific structure or funding was appropriated for professional development.

Historically, professional teacher development has been characterized negatively for being short term, motivated by tangential agendas, and irrelevant to classroom practice (Johnson, 2006). Current educational research and literature, however, provides practitioners with models for effective professional development that enhances the attributes of educators as well as improved student achievement.

Effective professional development involves more than the single-day workshops with handouts. Effective professional development strategies for accomplished educators involve experiential classroom activities and research-based activities that are collaborative in structure. Research indicates that the professional development stratagem must be connected to the teachers’ work with students and related to school change and presented with fortitude of
intensity and sustenance (Darling-Hammond, 2003; Johnson, 2006; Martin-Kniep, 2004). These activities can be realized through teacher study groups, teacher research, school-based coaching, teacher networks, and learning communities. Professional development is most effective when the development focuses on problems of practice (Darling-Hammond, 2003).

**Statement of the Problem**

Teacher quality and student achievement have garnered considerable attention in current educational reform. Appropriate professional development for educators is relative to teacher quality and student achievement. Professional development for special educators has proven to be ineffective in improving the changing roles and responsibilities of special education teachers (Fuchs, Fuchs, & Stecker, 2010; Rude & Brewer, 2003; Speck & Kniepe, 2005). Specialized instruction in pull-out situations and tiered instruction in general classrooms will be better served with real time, participatory professional development activities promoting reflective experience (Jones, 2010; Speck & Kniepe, 2005).

Current research on the National Board for Professional Teaching Standards (NBPTS, 2006) indicates that the NBPTS process is an appropriate form of professional development for educators through teacher learning (Cohen & Rice, 2005; Lustick, 2006;). The NBPTS (2006) currently provides certification as an Exceptional Needs Specialist specifically for special educators. However, there is minimal research on the use of the NBPTS (2006) process as an appropriate form of professional development for special educators.
Significance of the Problem

The need for appropriate professional development to create quality educators has not been ignored (Darling-Hammond, 2003; Desimone, 2011; Fullan & Crevola, 2006; Glasser, 1993; Hammond & McLaughlin, 2011; Joyce & Calhoun, 2010; Kaplan & Owings, 2002a, Loucks-Horsley et al., 2003; Speck & Knipe, 2005). Even so, special educators find themselves in the midst of educational reform with minimal direction relative to professional development due to the special educator’s changing role in the classroom. The NCLB Act (2002) encourages school systems to facilitate professional development opportunities through partnerships with universities, educator mentoring programs, and collaboration with professors within education. Yet, the declining number of experienced educators and teacher preparation programs for special educators (Smith, Pion, Tyler, & Gilmore, 2003) make the development of such partnerships difficult.

Professional literature and research provides suggestions for special educators in developing their professional development plan in specific areas, but in reflection the suggestions can be overwhelming to the teacher. According to Whitaker (2003), special educators require professional development in competencies related to developing and meeting the individual instructional needs of their students, discipline, professional motivation, curriculum, and special education policies and procedures. Rude and Brewer (2003) suggested that special educators be provided professional development in the area of professional isolation. Billingsley (2005, 2007) suggested special educators be provided opportunities to participate in leadership capacities within the structure of the local school. De Valenzuela, Connery, and Musanti (2000) proposed special educators be provided professional development based on standards developed by the Council for Exceptional Children (2009) in the areas of appropriate
interaction with families and communities, effective communication and collaboration, and maintenance of professional and ethical standards. In addition to suggestions from the literature, special educators are required by the local educational structure to participate in professional development that focuses on classroom instruction as well as the affective experience of the student and family.

Purpose of the Study

The current study developed as the result of my personal experience in obtaining the NBPTS (2006) certificate as an Exceptional Needs Specialist and my experience in training educators as a clinical master teacher. The purpose of the NBPTS certification process is to recognize accomplished teachers’ classroom practice based on scrupulous standards developed by the NBPTS. Hence, the NBPTS certification process is recognized as advancement within the profession of teaching more so than it is recognized as a form of professional development. The culmination of my experience as an NBPTS candidate and a clinical master teacher generated an interest in obtaining information about using the NBPTS process as a viable means of professional development for special educators.

The purpose of this study was to determine the extent to which the current practice of professional development within local education districts is supportive of professional development that adheres to research-based professional development standards by administering the NSDC Standards Assessment Inventory-2 (Appendix A) and to determine the perception of NBPTS Exceptional Needs Specialists in respect to the NBPTS (2006) process as a practical means of professional development for special educators based on quality indicators of professional development for special educators. The NCLB Act (2002) encourage the use of
professional development (teacher learning) to enhance teacher quality with the goal of improved student achievement. Research indicates (Darling-Hammond, 2003; Johnson, 2006; Martin-Kniep, 2004; Speck & Knipe, 2001) that appropriate professional development requires professional development that is student centered, experiential, research based, collaborative in design, connected, sustained, intensive, and connected to school change if it is to increase teacher learning. However, there is minimal research on the professional development benefits for special educators through the NBPTS process. Therefore, the purpose of this study was to determine the extent to which the current practice of professional development within local education districts is supportive of professional development that adheres to research-based professional development standards by administering the NSDC Standards Assessment Inventory-2 (Appendix A) and to determine the perception of NBPTS Exceptional Needs Specialists in respect to the NBPTS (2006) process as a practical means of professional development for special educators based on quality indicators of professional development for special educators.

Research Questions

The purpose of this study was to determine the extent to which the current practice of professional development within local education districts is supportive of professional development that adheres to research-based professional development standards by administering the *NSDC Standards Assessment Inventory-2* (Appendix A) and to determine the perception of NBPTS Exceptional Needs Specialists in respect to the NBPTS (2006) process as a practical means of professional development for special educators based on quality indicators of professional development for special educators.
professional development for special educators. This study will address the following research questions and null hypothesis:

1. What are the perceptions of NBPTS Exceptional Needs Specialists certificate recipients of their local schools’ professional development programs ability to adhere to standards representing best practice for professional learning?

2. What are the perceptions of NBPTS Exceptional Needs Specialists of their professional development practices prior to completing the NBPTS process?

3. What are the perceptions of NBPTS Exceptional Needs Specialists of their professional development practices since completing the NBPTS process?

4. What are the ways in which the Exceptional Needs Specialists instructional identity changed through the NBPTS certification process and how might that change inform the local education professional development program?

5. What are the perceptions of Exceptional Needs Specialists effectiveness as demonstrated by their response to their involvement in the performance-based portfolio assessment for the NBPTS certification process?

Definition of Terms

For the purpose of this study, the following operational definitions were used:

1. **NBPTS process** is voluntary national certification gained through a performance-based assessment of the educator’s classroom practices.

2. **Teacher quality** is an intricate concept that involves the information and expertise that an educator possesses and the educator’s ability to utilize their expertise in leading students to the acquisition of knowledge (Kaplan & Owings, 2002a).
3. **Appropriate professional development** refers to strategies to enhance the quality of an educator which involve experiential classroom activities, research-based activities, collaborative activities, connected to the educators work with students, sustained and intensive, and connected to school change (Darling-Hammond, 2003; Johnson, 2006; Martin-Knipe, 2004; Speck & Knipe, 2001).

4. **Highly qualified educator** refers to one who holds a bachelor’s degree, has obtained state certification and licensure, and demonstrated state competency in each core academic subject taught (No Child Left Behind, 2002).

5. **Face validity** refers to an assessment of the validity of an instrument based on non-expert judgments of what a survey appears to measure (Orcher, 2007).

6. **Content validity** refers to an expert’s assessment of the appropriateness of the contents of a survey for an intended purpose (Orcher, 2007).

7. **Reliability** refers to the consistency of the scores obtained (Fraenkel & Wallen, 2006).

8. **Phenomenological research** focuses on the meaning or essence of an individual’s perception of a phenomenon based on memory and acts (Creswell, 2007).

9. **Phenomenological epoch** is the active process of bracketing in order to see the world or phenomenon freshly without judgment or bias in order to determine the essence of the phenomenon and to describe the essence (Husserl, 1913).

10. **Constructivist learning theory** is a theory of knowledge where the learner engenders knowledge and significance from the interaction between their experiences and their ideas (Piaget, 1964).

11. **Instructional identity** is the identity that a teacher develops over time through education, professional development, and practice. This identity includes the knowledge, skills,
talent, and dedication that a teacher embodies as part of their educational practice (NBPTS, 2010; Stillwaggon, 2008).

Limitations

The current study was a mixed methods study that explores the NBPTS process for special educators as Exceptional Needs Specialists. The participants for this study were limited to the special education teachers who had obtained the NBPTS Exceptional Needs Specialists certificate in the State of Alabama. Therefore, a key limitation related to the participants possessing some degree of bias in relation to the NBPTS certification process because of their status as NBPTS certificate recipients. Participant bias influenced the outcome of this study.

The quantitative phase of the study involved survey research using the internet. Survey research using the internet involves limitations that influence the results of the study. The primary limitation for the quantitative phase of this study was the use of internet survey research resulting in non-response bias. According to Manfreda, Bosnjak, Berzelak, Haas, and Vehvovar (2008), internet survey research resulted in an 11% lower response rate when compared to other modes of survey conducted. Another limitation for the quantitative phase of this study included the ability of the researcher to obtain accurate contact information for all of the NBPTS Exceptional Needs Specialists registered in the State of Alabama.

The qualitative phase of this study involved special education teachers who had obtained NBPTS certificates as Exceptional Needs Specialist in the State of Alabama. The participants were chosen through the process of purposeful selection where the participants were invited to participate in a phenomenological interview and artifact review. Kilbourn (2006) indicated that
qualitative research is not generalizable whereas, the results of the study are limited to the population of study and not to NBPTS Exceptional Needs Specialists from other states.

Assumptions

The validity of conclusions emerging from this study was reliant upon accuracy of several fundamental assumptions. The principal investigator assumes that all participants are certified to teach in the State of Alabama, teaches two classes in the area of certification, and have at least 3 full years of teaching. The participants had some degree of bias in relation to the NBPTS certification process because of their status as NBPTS certificate recipients. During the quantitative phase of the study, the participants were honest when responding to the survey and completed the survey individually. During the qualitative phase of the study, the participants were honest during the interview concerning their affective experience at obtaining the NBPTS Exceptional Needs Specialist certificate.

Researcher Positionality

Glesne (2006) indicated that the researcher must recognize that subjectivity is an element of the individual’s research. In recognizing and using subjectivity, the researcher must characterize her autobiography to develop lenses for subjectivity in her research. The primary researcher for this study received her Bachelor of Arts degree in Psychology and Sociology in 1994. She obtained a Master’s of Education in Special Education in 1997. In 1999, she returned to college to pursue a certification in educational administration for prekindergarten through Grade 12.
In 2002, the primary researcher applied for NBPTS certification as an Exceptional Needs Specialist and completed the requirements in 2003. Her experiences as a result of participating and obtaining the NBPTS Exceptional Needs Specialist certification has resulted in the development of her professional teaching identity. She has pursued advanced degrees, served as a mentor for developing teachers and new teachers, served as a consultant on behavior interventions, spoke at state conferences, conducted training seminars, and taught college courses on behavior intervention and the development of behavior intervention plans. Her educational fervor includes emotional disabilities, behavior intervention and programming, teacher training, and professional development for teachers.

Summary

Current educational reform has focused on the enhancement of student achievement through quality teachers developed by way of appropriate professional development. In chapter 1, teacher quality was discussed and defined according to current theoretical research. Appropriate professional development was defined and reflected on in order to provide perspective for the research question. The research problem and questions were presented.
CHAPTER 2
LITERATURE REVIEW

In 1983, a federal report titled *A Nation at Risk* was issued to the American public. The report caused the educational community to be inundated with proposals that focused on reform of the educational structure. Relevant to educational reform is the demand for effective teachers using research-based techniques in the classroom. The establishment of a superior teaching force using research-based strategies in the classroom was envisioned to transpire through professional development.

The current review of the literature focuses on information relevant to the research question to determine whether the National Board for Professional Teaching Standards (NBPTS) process serves as appropriate professional development for special educators. First, the literature search procedures are described. Second, the theoretical constructs utilized in the development of the NBPTS are described. Third, special education teacher preparation programs and special education certification are portrayed and discussed. Fourth, a knowledgebase on professional development in education is presented and discussed. Fifth, the NBPTS process is discussed and situated within the conceptual framework of professional development. Finally, the research pertinent to NBPTS and teacher learning and student achievement is presented.

Literature Search Procedures

This literature review was conducted using general references, primary sources, and secondary sources. The researcher conducted electronic and manual searches of journals,
government publications, and books. The relevant literature was found utilizing electronic databases over the past 40 years through (a) Academic Search Premier, (b) American Psychological Association, (c) Education Full Text, (e) ERIC, and (f) PsychInfo.

The following descriptors were used in order to determine the areas in which research had been previously conducted for the current review of the literature: NBPTS, professional development, special education, certification, standards, teacher effectiveness, evaluation, portfolios, pedagogical content skills, teacher leadership, web portfolios, staff development, school change, models of professional development, informal learning, special education teacher leadership, professional development policies, student achievement, online professional development, collaborative professional development, national evaluation of professional development, professional development reform, authentic learning environment, teacher effectiveness, coaching, contemporary professional development, teacher learning, and teacher quality, constructivism, Piaget, Vygotsky, learning theory, and sociohistorical learning theory.

The review of the literature on professional development included selected literature from 1973 until 2011 extending over 40 years of investigation into this subject of interest. In addition, the review of the literature on NBPTS in general included research from 1985 until 2011, which resulted in 26 years of exploration. The researcher located no research on the use of the NBPTS process as professional development for special education teachers.

Theoretical Framework

In the United States, educational reform focuses on the educator and the educator’s responsibility for student achievement. Shankner (1986) declared that educational reform would mean little without the involvement of educators. He envisioned the involvement of educators in
educational reform through voluntary national certification gained through a performance-based assessment of the educator’s classroom practices. Shankner’s vision of educational reform was constructed utilizing learning theory as its basis. Learning theory is based on three theoretical frameworks: behaviorism, cognitivism, and constructivism.

The current literature review and research question is based upon the theoretical framework of constructivist learning theory or transformational learning theory (Bowers, 2005). Constructivist learning theory is a theory of knowledge where the learner engenders knowledge and significance from the interaction between their experiences and their ideas (Piaget, 1964). Constructivist learning theory is based on the work of Jean Piaget’s Cognitive Development Theory. Still, the constructivist theory is profoundly influenced by Lev Vygotsky’s Sociohistorical Theory of Development where signs and symbols of a culture are paramount in recognizing human behavior (Bigge & Shermis, 1999; Gredler, 1997). A discussion of Piaget’s Cognitive Development Theory and Vygotsky’s Sociohistorical Theory of Development will follow in order to situate this research within the conceptual framework of Constructivist learning theory.

Cognitive Development Theory

Jean Piaget’s (1970) work focused on the development of natural logic from infancy to adulthood. He proposed that intelligence and knowledge was more than “static quantities or things; they are ever-changing processes” (Gredler, 1997, p. 249). His work is heavily based in the biological functions of individuals where intelligence is based on an organized system that interacts with their environment. This interaction is done within stages of development that rely
on the concepts of intellectual functioning, which are assimilation, accommodation, and equilibration (Bigge & Shermis, 1999).

Piaget (1950) used biological concepts such as assimilation and accommodation to describe the interaction of one’s intelligence with the individual’s environment (Gredler, 1997). Assimilation involves the inclusion of a fragment of knowledge into the intellectual scheme of an individual. The inclusion of knowledge is in addition to what the individual has previously acquired through experience such as a teacher learning a new skill through research to introduce to her students. This is not a passive process but a process that involves the enrichment of the individual’s knowledgebase from within the environment of the learner.

Accommodation involves the modification of one’s knowledge structure to specific characteristics within specific circumstances. The modification of one’s knowledge structure assists the individual in understanding reality according to the new information (Bigge, 1999). Accommodation occurs when a teacher “accommodates” practices to include newly acquired information through research into current classroom practice or for the teacher to gain knowledge from the mistakes that are made through practice.

It is through assimilation and accommodation that the learner utilizes the process of equilibration. Equilibration is the processes used to sustain a secure state of cognitive development during the evolution of individual behavior. In adults, equilibration is utilized to moderate the processes of assimilation and accommodation while evolving to a more advanced state of equilibration through self-motivation (Sutherland, 1999).

Piaget (1950) defined intelligence in biological terms whereas “intelligence constitutes the state of equilibrium towards which tend all the successive adaptations of a sensor-motor and cognitive nature, as well as all assimilatory and accommodatory interactions between the
organism and the environment” (p. 12). Even so, he acknowledged the influence of the individual’s environment on the development of intelligence or the ability to learn. Teacher maturation likewise relies on assimilation and accommodation over time with guidance to bring about more effective teaching practices. This study purports to examine professional development contingent on more sophisticated self-motivated activities and to determine the NBPTS certification process value for special educators. Piaget’s acknowledgement of the influence of the environment on intelligence positioned him as the leading psychological constructivist in academia allowing others to further develop constructivist learning theory in his wake.

Sociohistorical Theory of Development

Lev Vygotsky’s (1978) work concentrated on complex mental functions of human beings. Those mental functions included categorical perception, logical memory, conceptual thinking, and self-regulated attention (Gredler & Shields, 2008). Vygotsky further indicated that the development of these mental functions relied on an individual’s ability to master the signs and symbols of one’s culture and using those signs and symbols for thought and the development of experiences within the individual’s culture (Gredler, 1997). Thus, intelligence is socially constructed.

Vygotsky’s (1978) theory is based upon three general principles. The first principle is the general law of genetic development, which is essential to the social process of cognitive development and signification. The law of genetic development states that “every function in a child’s cultural development appears twice: first on a social level, and then later on the individual level; first between people (interpsychological), and then inside the child (intrapsychological)”
(Vygotsky, 1978, p. 57). The education of an individual occurs through their cultural experiences in the classroom where they acquire information. Learning occurs through the child’s/adult’s use of acquired information through thought and application; the goal of professional development for teachers.

Signification is the process of an individual learning to attach meaning to symbols (Vygotsky, 1978). The meaning attached to symbols is expressed through speech, communication, and the written language. The art of signification relies on the meaning of symbols gaining significance through interpretation by the learner (Wellman & Lipton, 2000).

The second principle is in regard to the role that auxiliary stimuli have in the development and mastery of an individual’s behavior. Auxiliary stimuli are linked to “primitive mental functions--simple perceptions, natural memory, and involuntary attention” which are connected to the experience of an individual (Gredler, 1997, p. 249). The use of auxiliary stimuli involves the learner utilizing tools to assist in committing the use of formal knowledge to memory to be later used in the learner’s process of thinking. This action changes the role of thinking for the learner which, in essence, changes intellectual process between primitive thinking and higher forms of thinking. In practice, the teacher takes activities that are learned through formal training (professional development) and later recalls the material for use during classroom instruction due to the use of a form of stimulus.

The final principle is the concept of the zone of proximal development where a child’s ability is not indicated by the tasks that he can complete independently but by the tasks that he can complete collaboratively with his instructor (Gredler & Shields, 2008). According to Vygotsky (1978), instruction should precede the child’s zone of proximal development in order for learning to take place. The learning tasks should include the skills that will embrace the
ability of the learner to use higher-order thinking skills necessary for participation in
social/cultural relationships. Vygotsky (1978) stressed the importance of the teacher and the
teacher’s ability to transform the learner through the use of instructional practices that guide the
learner through/during their zone of proximal development for any given skill. Vygotsky’s
transition through the learner’s zone of proximal development is the transformation that the
education community relies on through professional development.

Vygotsky (1978) stressed the social construction of intelligence in children and adults
through one’s conceptual interaction with their immediate cultural environment. He
distinguished the conceptual interactions as spontaneous concepts and scientific concepts
(Vygotsky, 1986). Spontaneous concepts involve information learned through cultural practice in
specific contexts which prevent the information from being generalized for use in new situations
whereas scientific concepts are learned through formal instruction and rooted in general
principles for use in new situations (Smagorinsky, Cook, &Johnson., 2003, p.1399). Professional
development for teachers is developing the relationship between spontaneous concepts and
scientific concepts. The distinction between the two concepts was the foundation for establishing
Vygotsky as a leading theorist in the development of social constructivism.

*Constructivism Theory*

    Constructivism theory is a theory that describes how learning transpires. Within
constructivism, the individual is unique and the environment in which learning occurs is also
unique and important. Learning is no longer the sole responsibility of the teacher but also of the
individual who is participating in the learning task. With the learner’s increased sense of
responsibility in the learning process, the learner also experiences a renewed sense of motivation and competence in learning new tasks.

The role of the instructor is altered in the constructivist environment. Learning is an active process that is shared by each individual in the environment. The teacher becomes a facilitator of learning. The interactions between instructor and learner take on a new meaning where all stakeholders become pupils within the educational environment (Holt & Willard-Holt, 2000).

The essence of the constructivist theory is rooted by Piaget and Vygotsky in the sciences of epistemology, a theory of knowledge (Tryphon & Voneche, 1996). The application of constructivist theory is found within teaching practices that focus on active participation of the learner. Wink (2005) argued that constructivist theory is practiced by educators who respond within their classroom by “naming, reflecting critically, and acting” (p. 3).

The topic of professional development for special educators not only embraces assimilation and accommodation as described by Piaget but accepts the socialization of knowledge by Vygotsky. The development of teachers’ professional aptitude in the classroom moves from mere acquisition of knowledge through teacher preparation programs to the accomplishment of knowledge where teachers integrate what they have learned into classroom practice. Vygotsky (1986) made a “principal distinction between lower natural mental functions, such as elementary perception, memory, attention, and will, and the higher cultural functions, which are specifically human and appear gradually in a course of radical transformation of the lower functions” (p. xxv). Hence, the transformation of a teacher who has acquired knowledge given by the educational community to a professional educator who integrates the knowledge acquired into classroom practice and can align their practices with professional standards of
practice such as the NBPTS. The transformation of the teacher into an educator is the focal point of social constructivism. The current movement in educational professional development via the NBPTS process reflects the constructivist mentality through the use of standards-based practices as well as portfolio assessment of teacher performance.

Special Education Preparation Programs and Practice

The prominence placed on high expectations in public schools and the demand for accountability in American classrooms has forced policymakers in education to scrutinize not only the education but also the educator. Therefore, the intention of the educational community is to determine how to define a quality educator and how to generate quality educators. The research base on quality general educators is abundant. However, the research on quality special educators is limited and narrow (Brownell, Leko, Kamman, & King; 2008).

In defining a quality special educator, academia must first reflect on the preparation and certification programs for special educators. Historically, the preparation of special educators has been defined by research, policy, or practice (Brownell, Sindelar, Kiely, & Danielson, 2010). Special education preparation programs can be divided into three historical eras of development: categorical, non-categorical, and integrated. Each era was influenced by the political climate of the era, research on education and disabilities, and assumptions about teaching and teacher preparation (Brownell et al., 2010). Initially, special educators were prepared to teach students with disabilities in residential facilities for individuals with disabilities. The practice of clinicians training special educators gradually transitioned to special education teacher preparation programs in colleges and universities. This began the categorical era.
Categorical Era of Special Education

The late 1950s and 1960s were regarded as the categorical era. In the categorical era, special educators were prepared to teach students with specific disabilities. During this era, the disability of an individual was defined through psychology or medicine. Research on the education of students with disabilities was directed through the clinicians who were working with individuals with disabilities. Therefore, educational practice was defined by the doctors and psychologists. This led to educators being trained to work with students who were intellectually disabled, learning disabled, and/or behaviorally/emotionally challenged.

The political climate of the categorical era resulted in case law and federal legislation that addressed special education and defined special education in categories. The Brown vs. Board of Education (1954) ruling provided the opportunity for parents of children with disabilities to demand an educational opportunity for their children. The need for special educators became paramount. In 1958, the Education of Mentally Retarded Children Act was passed to provide support in special education for the development of leaders in the profession to assist with the preparation of special education teachers. The Deaf Act of 1961 was passed to provide federal funding for special education teacher preparation programs.

In 1975, the federal government passed the Education for All Handicapped Children Act (EHA). This legislation provided children with disabilities a free, appropriate public education that would meet their needs. Again, the educational community was not prepared to meet the diverse needs of students with disabilities. The research community responded by providing information on how a special educator could address the deficits that children struggled with due to their disability and adjust their education to meet their needs. Another strand of research
focused on the individual’s behavior and how behavior could be modified to best meet the needs of individuals who struggled with behavior deficits.

During the categorical era, quality special educators were defined by the teacher’s ability to determine deficits through assessment, provide interventions to meet those deficits, and implement the intervention through educational programming for students with specific disabilities. Researchers later determined that this method of teaching students with disabilities was not supported through the research conducted on students with disabilities. Hence, the restructuring of teacher preparation programs into non-categorical programs of instruction.

Non-categorical Era of Special Education

The 1970s and early 1980s were considered the non-categorical era. During the noncategorical era, research in behavioral and process-product interventions redefined special education and required the restructuring of special education teacher preparation programs. The educational community questioned the use of splitting students into classes according to their labels and demanded changes in public school special education practices. This resulted in special education programs where teachers provided services according to the needs of the student based on their acquisition of educational competencies. The character of the intervention used in the classroom took precedence over the disposition of a student’s disability.

The federal government continued to provide monetary support for special education teacher preparation programs as well as special education as a discipline. The special education profession continued to experience a significant shortage of special education teachers during the noncategorical era despite the transition of state certification requirements to noncategorical certificates. The educational community responded by allowing alternative certifications in
special education whereby individuals who held a bachelor’s degree in an area outside of teacher education could receive a teachers certificate to teach with a commitment to taking teaching courses.

Research during this era focused on interventions that followed the behaviorist’s ideology. Special education teacher preparation programs and special education practice resulted in stipulating behavioral objectives and utilizing systematic data collection when developing educational programs for students with disabilities. Curriculum-based measurements become standard practice for special educators as well as direct instructional programs that were scripted to provide instruction to students who struggled in reading and mathematics. Despite the research supporting these interventions, many teachers resented the material due to the programming eliminating the ability for the teacher to make decisions concerning the instruction provided for students with disabilities (Brownell et al., 2010).

The noncategorical era defined a quality special educator as the teacher that could master and implement instructional and classroom management skills. A quality special educator utilized curriculum that was based on the concept of direct instruction and made data driven decisions to make changes to the educational programs of a student with disabilities. The special educator during the noncategorical era utilized positive behavior and supports to manage the behavior of the students in the classroom and provided successful instructional opportunities to facilitate progress. The teacher education preparation programs of this era responded to the behaviorist’s ideology by using the same competency-based methods that future special education teachers were being trained to use. Once again, the structure of special education practice and special education teacher preparation programs entered a state of transition resulting in an era of integrated preparation and practice.
Integrated Era of Special Education

The late 1980s and 1990s in special education were regarded as the era of integrated preparation (Brownell et al., 2010). The integrated preparation era was defined by general educators and special educators being trained to be educators together. This model came into practice because of the response to Madeline Will’s (1986) plea for general educators and special educators to share the responsibility for students with disabilities in the general education classroom. Local education agencies and teacher preparation programs heeded the call for integration and a new era of inclusive special education teacher preparation and inclusive practice began.

The political climate of this era resulted in renewed federal legislation to support special education. However, advocates for individuals with disabilities argued that it was an ethical and moral obligation for students with disabilities to have access to the general education classroom for educational as well as social reasons. Even so, experts continued to put forth arguments that supported the importance of placement decisions for individuals with disabilities to be made on an individual basis rather than made as blanket policy. States reacted to the movement for inclusion by adopting inclusive practices for students with disabilities.

The research community continued to conduct research on special education classroom practice to determine the worth in continuing to offer separate classrooms for students with disabilities. Research in this era resulted in advocacy groups pushing for inclusion for all students. The use of separate classrooms for students with disabilities lost favor with the educational community despite the overwhelming objection to the inclusion of individuals with disabilities in general education classrooms by general education teachers.
The era of integration was an era of frustration for all educators in public schools. The special educators were not prepared to work with general educators and the general educators were not prepared to work with students with disabilities or the special educator. A quality special educator was defined by the ability to collaborate with the general educator on behalf of the students with disabilities and if they had knowledge of instructional methods, classroom management skills, assessment, instructional interventions, behavioral interventions, and differentiated instruction. The educational community witnessed a transition in epistemological thought concerning the education of students with disabilities. Special education began to be viewed through the lenses of constructivism whereas special educators were decision makers and problem solvers for the integration of students with disabilities into the general education classroom. Special education teacher preparation programs responded to the change in philosophy through the restructuring of their programs to provide collaboration with general education teacher preparation programs.

Inclusion provided access for students with disabilities to the general education classroom. The transitory state of the practice of special education has resulted in not only the inclusion of students in the general education classroom but access to the general education curriculum. Historically, special education practice has been a problem-solving practice with a focus on intervention. Through developments in policy, research, and practice, special education teacher preparation and practice has evolved to a state of accountability for the performance of students with disabilities in the general education curriculum as well as their response to specific interventions. The literature refers to this new era of reform as response to intervention (RTI).
Response to Intervention (RTI)

Mandates through federal legislation, such as the NCLB Act (2002) and the *Individuals with Disabilities Education Act* (IDEA, 2004), are requiring local education agencies to include students with disabilities in the general education curriculum and assessments determining the students’ progress in the curriculum in order to demonstrate annual yearly progress (AYP). These mandates influence special education classroom practice in respect to using appropriate instructional strategies that are research based for students with disabilities. However, teacher preparation programs are pressured to prepare special education teachers who can provide appropriate interventions for students with disabilities in a collaborative environment while embracing the research on assessment and technology.

The research provided to the educational community continues to further develop the practices that are being used as intervention strategies for students with disabilities. The research is providing defining roles and responsibilities for special educators and general educators in this era of accountability and response to intervention (RTI) due to the advancement in knowledge about cognitive strategies that assist students with disabilities at being successful with the general education curriculum. Special education teacher preparation programs benefit from the structure of the RTI model because the model specifies that special education teachers go beyond the interventions and data collection responsibilities represented in Tier II of the model to requiring domain knowledge for subject of intervention, knowledge of interventions, technological interventions, and knowledge of assessment (Brownell et al., 2010).

A quality special educator in the era of RTI is defined by his or her cognitive capability, behavioral practices, and social character. The special educator will have to obtain subject domain knowledge and strategies for transferring that knowledge from teacher to student with
disabilities. The behavioral practices of the quality special educator is evident in their classroom practices, interactions with their students, and the assessments that are utilized to assess the progress that is being made or not being made by their student with disabilities. The quality educator is capable of taking the information gathered from the assessments to retool the interventions for the students with disabilities in order to insure the students’ progress in the general education curriculum. The special educator’s social character is evident in the ability of the special educator to collaborate with general educators and interact with the parents of the student with disabilities.

In summary, special education models of instruction and special educator roles have been impacted by policy, practice, and research. Consequently, the special education models of instruction and the special educator roles in education have impacted special education teacher preparation programs, which have been and continue to be in a state of transition. The changing roles of special educators and lack of research supporting special education practices have hindered the special educators’ professional reputation or equitable status with general educator peers. Brownell et al. (2010) suggested that the current state of special education is at a critical state and that the ability of special educators to take their responsibility in the RTI movement is necessary if special educators are going to maintain their status as professionals in the educational community. Therefore, special education teacher preparation programs and professional development for special educators require a radical change in structure to reflect current research-based activities.
State Certification

Special education teacher preparation programs through a college or university represents one opportunity to obtain state licensure in special education. Most states require the completion of a teacher preparation program that focuses on pedagogy in the area of certification as well as basic foundation courses in education. However, each state has the flexibility to determine the certification requirements for that particular state. In addition to a bachelor’s degree in education, most states require a certification exam to complete a prospective teacher’s certification requirements.

The majority of states offer alternative certification in the areas of science, mathematics, and special education due to teacher shortages in these areas of instruction. Alternative certification is granted to individuals who have completed a bachelor’s degree without a teacher preparation program. The certification is awarded with the understanding that the individual will complete a program in pursuit of teacher certification. However, in respect to traditional certification and alternate certification, states rely on federal legislation to define a teacher’s highly qualified status.

Highly Qualified Special Educator

The NCLB Act (2002) and the Individuals with Disabilities Education Act (IDEA, 2004) define a highly qualified special educator as one with full certification in special education with subject matter knowledge and knowledge of special education practice. Cook and Schirmer (2003) further defined highly qualified special educators as those who employ research-based techniques for students with disabilities and have a secure knowledge of effective pedagogical practice for students with disabilities. Kauffman and Hallahan (2005) argued that “special
education is not different from general education in its basic operations, but it is different in the application of these operations” (p. 48). Consequently, highly qualified special educators should be knowledgeable in applying educational operations for students with disabilities on an individual basis.

The special educator’s role in applying educational operations for students with disabilities is a broad concept. However, special educators find direction for this task in leading organizations such as the Council for Exceptional Children (CEC). In 1923, the CEC met with the intention of establishing professional standards for teachers in the field of special education. Since the inception of CEC, the council has established professional standards for special educators as well as a code of ethics. These standards are defining characteristics of highly qualified special educators.

The professional standards provided by CEC were created as a collaborative project including members of CEC, policymakers, and other professionals of the educational community. The initial intention of the professional standards were to provide direction for special educators in their practice but, the standards now “provide benchmarks to states, provinces, and nations for developing or revising policy and procedures for program accreditation, entry-level licensure, professional practice, and continuing professional growth” (CEC, 2009, p. xi). In addition to professional standards, the CEC provides the special education community with the most “rigorous and comprehensive sets of knowledge and skills available anywhere for the preparation of high quality special educators” (CEC, 2009, p. 8).
Professional Standards for Special Educators

The Council for Exceptional Children created professional standards that define a highly qualified special educator. In the CEC publication, *What Every Special Educator Must Know* (2009), the CEC provides an exhaustive description of professional ethics, standards, and guidelines for special educators who are entering the field as well as those seasoned special educators seeking continued professional growth. The professional standards are reflected in CEC content standard domain areas. Those areas are Foundations, Characteristics of Learners, Instructional Strategies, Individual Differences, Learning Environments and Social Interactions, Instructional Planning, Language, Ethics and Professional Practice, Assessment, and Collaboration.

*Foundations*

The Foundations of special education involves the knowledge of the field of special education as related to the theories and philosophies that define special education as a discipline of study. The knowledge base of foundations includes philosophy, evidenced-based principles and theories, relevant laws and policies, diverse and historical points of view, and human issues (CEC, 2009). Stough and Palmer (2003) conducted qualitative research on 19, certified special education teachers. Each teacher was videotaped and asked to review and reflect on the video for the purpose of exploring the nature of instructional thought in expert special education teachers. The data were collected and conceptualized using grounded theory whereby the data were coded in search of emerging themes between the teachers.

The analyses of the data collected for this study indicated that the “nature” of the special educators’ thought process is complex and interactive while mindful of the individual students’
needs within the scope of learning new tasks. The teachers who participated in the study had thorough knowledge for special education processes and individual student educational history. Stough and Palmer (2003) concluded that student achievement is improved by “knowledgeable, reflective, and concerned responsiveness of teachers to students.” Therefore, the findings of this study indicated that teacher training programs should concentrate on how special educators think about instruction in addition to what interventions they implement in the classroom.

*Development and Characteristics of Learners/Individual Learning Differences*

The CEC (2009) indicated that highly qualified special educators understand and respect their students. Special educators realize the similarities and differences in human development, including the manner in which exceptional conditions effect the learning style of individual students. Taylor, Pressley, and Pearson (2000) conducted a study to determine the school factors and classroom factors that attributed to successful reading instruction and achievement.

Taylor et al. (2000) used a quantitative and descriptive methods study to examine programs and practices for 14 moderate to high poverty schools based on their ability to implement reading reform and reading achievement gains. Data collection involved student outcome data, observations, teacher logs, questionnaires, and interviews. The data were analyzed according to levels. The data were descriptive on level one, descriptive and statistical data were used to examine variation in instructional practices on level two, and statistical data were used to determine teacher variation according to teacher accomplishment on level three. Four of the participating schools were determined to have the most effective practices on the school level and in the classroom.
The research resulted in parent links being positively and statistically significantly related to school effectiveness ($r = .73$) and to all measures of student growth (fluency: $r = .60$, retelling: $r = .37$, and reading words: $r = .41$). Other factors related to school effectiveness involved a systemic internal assessment (reading fluency growth: $r = .53$, $p < .01$, retelling performance: $r = .37$, $p < .01$), building communication and collaboration (reading fluency growth: $r = .43$, $p < .01$, retelling performance: $r = .35$, $p < .01$), early reading interventions, and ongoing professional development with the goal of improving reading instruction. In order to determine the relation between school effectiveness and classroom instruction, the authors conducted a multivariate analysis of variance (MANOVA) with school effectiveness serving as the independent variable and eight teacher variables serving as outcome measures with the results being $F(14, 108) = 2.56$, $p < .01$. The authors concluded that teachers who are most accomplished in helping children achieve academically are those who know their students’ individual needs, are skilled at coaching and in keeping all children on task in the classroom, and reach out to the parents of their students. This study implies the importance of the special educator’s ability to know their students.

Podell and Tournaki (2007) conducted a study to determine whether general educators and special educators responded differently to students based on their learner characteristics including student gender, reading achievement, behavior, and attentiveness. The study included 384 special educators and 384 general educators from a metropolitan school system that were recruited through the local schools, graduate education courses for new teachers, and professional development programs for experienced teachers. The study utilized a $4 \times 2 \times 2 \times 2$ factorial design that yielded 32 cells where the independent variables included student
characteristics, teacher’s specialty, and years of teaching experience. Dependent variables included the teacher’s prediction of student success.

The data for this study were collected using a case study designed by the authors that the teacher read followed by a 9-item Prediction of Student Success Survey (PSS). The participants in the study were randomly assigned to 1 of 32 conditions. The authors conducted a factor analysis of the PSS survey to determine whether the survey items measured more than one feature of the teachers’ responses to the case study. The analysis suggested that two distinct factors comprise teachers’ prediction of success: predictions of student success and predictions of social success with coefficients of .88 and .92, correspondingly. The authors performed an analysis of covariance (ANOVAs) on the participants’ response to the measures of the two dependent variables, predictions of academic success, and predictions of social success using the experimentally manipulated independent variables and non-manipulated independent variables.

Data collected for the present study indicated that general and special educators make different predictions regarding their students’ overall academic success. Special educators make more positive forecasts for students than do general educators. However, the data indicated that general educators make more positive prophecies when the student is functioning on grade level whereas they tend to be more negative when there is a problem. In regard to social success for students, both special educators and general educators made negative predictions regarding social success when the student had a label than they did students who were unlabeled. General educators were more optimistic about the social success of students without labels and more pessimistic when they were labeled. The implications for practice resulting from this study have direct influence on teacher preparation and the professional development of teachers in regard to learner characteristics of students. The authors also suggested that teachers be in-serviced
regarding collaborative practices between special and general educators to enhance classroom instruction.

Hendricks (2011) employed survey research in order to “identify characteristics as well as specific knowledge and practices of teachers” (p. 39) who serve students with autism. The study solicited survey responses from 2,334 special education teachers. A total of 498 surveys were completed and returned for analysis.

Survey analysis resulted in descriptive statistics labeled teacher-related characteristics and environmental-related characteristics reported in percentages. Teacher-related characteristics were labeled as type of licensure, area of teaching endorsement, and years of teaching experience. Environmental-labeled characteristics included the geographical description of the school system, educational level, and classroom setting. The self-reported knowledge and implementation practices of the special education teachers’ portion of the survey resulted in descriptive statistics reported as total number of participants, mean, standard deviation, and range.

The statistical reports indicated that teachers who teach students with autism in Region I have an array of qualifications and experience. The study presented information that indicated that the majority of the teachers have endorsements in early childhood special education or severe disabilities (34.9%). This finding is significant due to the developmental needs of students with autism in the area of academics, socialization, communication, and behavior. Eighty percent of the respondents reported that they serve students with autism with normal academic functioning but require instruction in communication, social skills, and behavior to foster academic success. The study revealed an area of concern in that teachers reported that they have low to intermediate levels of knowledge of autism and effective instructional practices. The
findings reported in this study reflect areas of needed professional development for teachers who teach students with autism.

*Instructional Strategies/Instructional Planning/Assessment*

Quality special educators utilize evidenced-based instructional strategies to provide instruction for students with disabilities based on the students’ individual needs. Dingle, Brownell, Leko, Boardman, and Haager (2011) conducted a study that was part of a larger study involving Literacy Learning Cohorts (LLC). The LLC involved a two and a half day institute, monthly follow-up meetings in small groups, an online community with discussion and resources, and monthly classroom observations for a 6-month period. The reported study involved how three special education teachers involved in the LLC learned to “implement strategies and identify contextual and individual variables associated with implementation” (p. 89) using qualitative case-study method.

The investigators conducted a cross-case analysis of three teacher cases that were purposively selected because they “differed in their certification route, their prior knowledge in teaching reading, years of teaching experience, and the quality of professional development implementation in their classrooms” (p. 90). Data were collected using videotapes of lessons, teacher interviews, and videotapes of LLC meetings, a formal survey, debriefing notes, and documentation of online community conversations. Data were analyzed in four stages to create individual case studies and a summative cross-case analysis. The researchers identified three individual and contextual factors that influence how they incorporate the project content into their classroom instruction. The factors included “participants’ knowledge of reading instruction
and general pedagogy, participants’ motivation to participate in Project LLC and to change their instruction, and the curriculum used in the classroom” (p. 99).

The authors concluded that teachers who were more competent at employing strategies or accepting instructional reform were willing to learn new strategies or work with researchers to develop their current practices. This study highlighted the integral elements to improving professional development efforts for special educators in the area of reading instruction. The researchers identified three areas for consideration when implementing professional development for new instructional tasks which include the special educators’ content knowledge and pedagogical skills, the role that curriculum plays in the special educator’s daily instruction, and the motivational needs of each special educator to make changes.

Towles-Reeves, Kearns, Klienert, and Kleinert (2009) conducted a study to determine whether the alternate assessment based on alternate achievement standards is appropriate for the intended population being assessed and to ensure that the appropriate population is in fact being assessed. The authors used a survey research design where teachers were asked to complete the Learner Characteristic Inventory (LCI) for each student participating in the alternate assessment. All teachers in three states were asked to complete the LCI for each student that they had participating in alternate assessments. State 1 reported an 80% response rate. In State 2, 7% of the respondents replied. State 3 reported a 47% response rate.

Data were analyzed using descriptive statistics, including frequencies and percentages for each of the 10 questions on the LCI. The authors conducted correlational analyses to investigate the relationships between expressive and receptive communication and reading and mathematical skills along with other variables. The authors concluded that the alternate assessment is an appropriate assessment for the students who were taking it. The information gathered from the
LCI indicated that most (over 66%) of the students taking the alternate assessment had functional reading and mathematical skills. A small number of students (11% or less) had language skills that were presymbolic. The results from the survey indicated that there are two types of students using the alternate assessment in these three states. The first type of student is one that has either symbolic or emerging symbolic levels of communication, indication of social interaction, and functional reading and math skills. The second group of students has not acquired formal, symbolic communication systems, do not interact socially, and have no knowledge of print or numbers. The findings suggested that the number of students who lack basic reading and math skills make it difficult for educators to develop appropriate alternate assessments that reflect the course of study for these students.

Pindiprolu, Peterson, and Berglof (2007) conducted survey research to determine the professional development needs of in-service school personnel; explore differences in professional development needs of administrators, teachers, and support staff; and explore differences in the professional development needs of special and general educators. Surveys were distributed to 450 special and general educators, which resulted in a response of 34.8% (157 returned surveys). The majority of the surveys returned were in the field of special education (82.1%). The study only explored the special and general educators’ opinion of professional development needs and their skill level with the functional behavior assessment.

Data were analyzed and statistically reported using the mean, mode, and percentage of responses rated as high (4). All respondents reported professional development in intervention for behavior, the functional behavior assessment, and inclusion strategies. Additionally, teachers indicated the need for professional development in effective teaching strategies. The authors concluded that all school personnel see managing behavior problems as a primary issue,
recognize that all school personnel are involved in the management of behavior, and professional development is needed in managing behavioral problems.

Altman, Cormier, and Lazarus (2010) surveyed 2,336 special education teachers in the State of Alabama in regard to the accommodations used for instruction and assessment. The researchers investigated the factors that influence how accommodations are used for instruction and assessment, the differences in the factors and considerations identified by respondents for selecting instructional and assessment accommodations, and the most frequently used accommodations for instruction and assessment (p. 2). Data were collected using an online survey management program.

The data examined included descriptive statistics between groups. Inferential statistics were not used because the population of respondents was not randomly sampled and survey items were not mutually exclusive. Descriptive statistics indicated that 63% of the respondents taught in a resource room for half of their work day and over half taught in an inclusive setting the other half of their work day. Noteworthy indications resulting from the survey were that 57% of the respondents indicated that key criterion for choosing accommodations were the student’s present level of performance, and 28% determined the accommodation based on the difficulty of the material being taught. Researchers determined through this study that more professional development in regard to accommodations of instructional material and assessments was needed to assist special educators in making appropriate choices for their students.

Learning Environments and Social Interactions

The special education community recognizes that highly qualified special educators develop learning environments that are conducive to students’ achievement and that “foster
cultural understanding, safety and emotional well-being, positive social interactions, and active engagement of individuals” with disabilities (CEC, 2009, p. 28). Miller, Lane, and Wheby (2005) conducted a study to determine the effects of social skills training on classroom behavior of students with high incidence disabilities. The researchers examined the results of a prescriptive, classroom-based social skills intervention program for seven students with high incident disabilities. Data were collected using descriptive statistics on all seven students prior to the intervention, using the Social Skills Rating System-Teacher Version (SSRS-T) with coefficient alpha reliabilities for subscales ranging from .86 to .94 for social skills, .78 to .88 for problem behavior, and .95 for academic competence (Gresham & Elliot, 1990). Then, the students participated in a 12-hour social skills training program. Researchers measured the direct observation of inappropriate classroom behavior and academic engaged time. Researchers documented less inappropriate behavior for the students and more on task behavior for most of the students. This study supported the use of professional standards for special educators as a means to encourage social skills training for students with special needs.

Blecker and Boakes (2010) investigated the skills, knowledge, and dispositions of general and special educators as instructional leaders in the inclusive classroom. As part of the study, the authors conducted a comparison of teacher acuity and readiness for inclusive classroom practices as well as the teachers’ view of the school climate in relation to administrative support and professional collaboration. The authors solicited 2,827 public school teachers to complete a survey measuring the variables for the study with a 19% response rate indicating that 546 teachers returned the survey.

The survey for this research was divided in three sections. Section one focused on teachers’ perception, section two focused on the implementation of specific skills and strategies,
and section three consisted of basic demographics. The survey data were analyzed using descriptive statistics (frequency distributions and mean), $t$ tests to examine the mean of each item, and independent samples $t$ tests to note significant differences between skills and dispositions of special versus general educators. Reliability and validity of the results were determined using Cronbach’s alpha.

The authors concluded that both general and special educators agree that all students should be served with their typical peers. There is some variability in the methods and practices used to insure success in the inclusive environment for students with special needs. Data indicated that special educators use techniques to insure differentiated instruction for students with special needs more so than the general educator. All respondents to the survey indicated that continued professional development in the area of collaboration is needed as well as development in techniques used for differentiated instruction in the typical environment.

**Collaboration**

The CEC (2009) encourages special educators to collaborate with “families, other educators, related service providers, and personnel from community agencies in culturally responsive ways” (p. 30). Horne and Timmons (2009) investigated teachers’ opinion of the effect of inclusion of students with special needs on the daily routine of their classes. The study involved 20 English elementary school teachers with an average age of 42.1 years and an average of 18.6 years of teaching experience who taught in inclusive classrooms. The participants in the study completed the School and the Education of All Students Scale (SEAS) to determine the “attitudes and perceptions of educating all students; and the areas that may be causing concern for educators” (p. 274). The researchers solicited volunteers to participate in a
personal interview to elicit additional details about their responses to the survey. Nine teachers volunteered for personal interviews. Five out of the nine teachers were randomly selected for personal interviews. The interviews were audio taped and took around 30 minutes.

The data collected through the surveys were analyzed and coded using percentages for translation. The percentages were put in bar graphs and tabled for ease of representation. The interview data were transcribed, coded, and categorized into themes. The data were categorized into comments that reflect attitudes and perceptions and comments that reflect cause of concern for educators. Respondent comments were presented with the data to enhance the answer provided in the survey.

This study resulted in information that concurred with established research on inclusion of students with special needs in the general education classroom. Teachers that participated in the study agreed that all children should be included in the general education classroom. However, they indicated that they were not adequately prepared to manage the students with special needs. The respondents also indicated that they needed ongoing comprehensive support to implement inclusionary activities and more time to implement the inclusive practices in the classroom. The researchers concluded that in order for inclusion to be successful for any student the practice must have a community of support to include local and district administrations, the State Department of Education, teachers, parents, and universities.

Utley (2011) probed the professional development training needs of general and special educators who worked with culturally and linguistically diverse (CLD) students with and without disabilities. The State Board of Education assisted in identifying 94 school districts to participate in the recruitment process of the study: 47 who served CLD students and 47 who did not serve CLD students. The researchers mailed 833 Multicultural and Special Education Surveys where
48% of those mailed were returned completed. Survey responses were factor analyzed using principal component analysis and Varimax with Kaiser Normalization. Statistical procedures included an exploratory factor analysis, descriptive, and corrected item total correlations for each item. Based on a scree test, seven underlying factors were indicated.

The factor analysis revealed cultural knowledge, teaching strategies, curriculum and materials, parental communication, monitoring and evaluation procedures, IEP, and community relations as professional development concerns of general educators and special educators when addressing the needs of CLD students. The study indicated that the Multicultural and Special Education Survey is a relevant instrument in assessing the multicultural and special education competencies for general and special educators. This information can be utilized to determine the professional development needs of general educators and special educators when working with CLD students and to develop professional development to enhance educational instruction for these students.

Watson and Gatti (2012) investigated the challenges of the work and experiences of early interventionists in regard to the use of reflective consultation in early intervention for children with disabilities. The study involved a center for early education and development, a school district early intervention program, and a mental health clinician in private practice. The participants included 14 early childhood professionals who serve children birth to 3 years of age as early childhood special educators and related service providers. An infant mental health specialist with a PhD degree in clinical psychology provided reflective consultation to the team of professionals. The mental health specialist provided the independent variable component of the study whereas he provided an awareness-level workshop on infant mental health and reflective consultation to the teams of professionals once a month throughout the school year.
The investigators collected quantitative and qualitative data that would provide insight into the use of reflective consultation, which included a reflective practice survey, interviews with reflective consultation participants, and an interview with the consultant. The data were collected over a period of 10 months. The reflective practice survey was used to provide quantitative data that reflected the participant’s knowledge of reflective consultation and opportunities to engage formally and informally in this type of professional development. The survey was implemented at the beginning of the year and at the end of the study. The interviews supported the qualitative portion of this study where the professionals were interviewed in a small group format regarding the participant’s personal experiences with the reflective consultation group. The interview with the reflective consultant garnered data on her viewpoint about the challenges the early intervention professionals faced, the types of support provided, and her recommendations for the future.

The study resulted in quantitative and qualitative data. Due to the small number of participants, the data did not allow for statistical analysis of the survey data collected. However, the qualitative data provided the emergence of two themes that included “sources of stress on early interventionists” and “reflective consultation as a unique and effective professional development and support tool for school-based early interventionists” (Watson & Gatti, 2012, p. 117). The early intervention professionals experience stress from a variety of sources such as stressed families, district budget cuts, paperwork demands, and their own feelings of inadequacy about fulfilling their job responsibilities. The reflective consultant stated that the early intervention professionals needed to participate in more professional development to address the need for the early intervention professionals to develop and maintain appropriate boundaries in regard to their intervention families and how to appropriately inform families of the child’s
disability. The early intervention professionals reported positive experiences with reflective consultation where they gained insight into how their emotions and previous experiences affect their interactions with families, gained new ideas from team members, and that their work improved through the consultative process. They also reported the importance of using an outside consultant for the reflective process and the importance of meeting on a regular, ongoing basis.

The reported study resulted in insightful data for administrators, practitioners, and families. The data indicate that reflective consultation is a viable means of improving services provided by early childhood intervention professionals. Professionals reported that the reflective consultation as professional development provided them with opportunities to gain insight into challenges and to “plan, implement, and reflect on their work with families” (Watson & Gatti, 2012, p. 120).

Summary

The professional standards published by the CEC provide special educators and educational policymakers with criterion for defining quality practice in special education. The use of the CEC professional standards to recruit and retain special educators is a sensible option due to the CEC’s defining presence in special education as well as the willingness of the council to align itself with educational affiliates such as the NBPTS (2011). The CEC collaborates with the NBPTS in developing standards of practice that are complementary. This practice is evident through the NBPTS advanced certification of special educators through the exceptional needs specialist certification process.
Professional Development

The No Child Left Behind Act (NCLB) of 2002 defines a highly qualified teacher as one who has a bachelor’s degree, has subject-matter competency, and is qualified to be a fully licensed teacher in the state in which they teach. No Child Left Behind (2002) encourages state and local education agencies to meet the advancement of its teaching force through quality professional development. States fund professional development for educators each year. Professional development has become the primary source for school districts to implement educational reforms.

The NBPTS certification process constitutes a form of professional development used by educators to situate themselves within the professionalization movement in education (Lustick & Sykes, 2006). The certification process is a multi-dimensional model of professional development for educators who participate in the process. The current literature review explores models of professional development and explores the question, “What is considered appropriate professional development and where is the NBPTS process situated within paradigms of appropriate professional development?”

Models of Professional Development

Professional development was defined in the early 1990s as “those processes that improve the job-related knowledge, skills, or attitudes of school employees” (Sparks & Loucks-Horsley, 1990, p. 234). Sparks and Loucks- Horsley (1990) presented the educational community with five models for professional development. These models are (a) Individually Guided Model, (b) Observer/Assessment Model, (c) Development/Improvement Process Model, (d) Training Model, and (e) Inquiry Model.
The individually guided model involves teachers engaging themselves in the process of professional development through self-guided activities. This model assumes that the teachers can determine their own personal learning needs and carry out the appropriate activities to meet those needs. The individual guided model involves the teacher identifying a need or interest, developing a plan to meet the goals that evolve from that need or interest, participating in learning activities, and assessing the plan in regard to meeting the individual’s learning goals (Sparks & Loucks-Horsley, 1990). The activities for the individually guided model can be as simple as reading a professional book or journal or it can be as complex as participating in incentive grants where the teacher participates in research or curriculum development.

The observer-assessment model requires the teacher’s classroom performance being observed by outside individuals. An observation/assessment model assumes that teachers value feedback from others, which benefits the teacher and the observer. Both parties can learn from the experience and teachers are motivated to make changes if they see the value of change through another’s observation (Sparks & Loucks-Horsley, 1990). The process of observation/assessment involves pre-observation conference, observation, and post-observation conference activities. Observation/assessment can take many forms such as evaluation, peer-coaching, and clinical supervision.

The development/improvement process model engages the teacher in an effort to impart school-wide change through curriculum development, program design, or school improvement. Through the development/improvement process model, it is assumed that teachers learn best when there is a problem to solve, that teachers understand what needs to be improved, and that learning will take place through the teacher’s involvement in the improvement process. The development/improvement process begins with the identification of a problem, developing a
response, determination for the need for professional development, and implementation of the plan (Sparks & Loucks-Horsley, 1990).

The training model of professional development incorporates staff development workshops where a presenter imparts information and/or skills for the teacher audience to use in their classroom. Undergirding the process is the belief that there will be an improvement in the teachers thinking (Sparks & Loucks-Horsley, 1990). The training model of professional development is supported in education from an assumption that behaviors and skills teachers need to add to their practices that are not understood. The training content, objectives, and schedules are typically determined by administrators and trainers through a series of observations of classroom practices.

The inquiry model of professional development is defined through the process of the identification of a problem, the exploration of ways to collect data through research or assessment, the analyzing of and interpretation of the data, and adjusting practice according to the findings (Sparks-Loucks-Horsley, 1990). The assumptions that guide this model of staff development are that teachers are able “to formulate valid questions about their own practice and to pursue objective answers to those questions” (p. 243). In practice, this model is only limited or advanced by the individual who is pursuing staff development through inquiry. Although not the only form of inquiry development, the NBPTS process lends itself to the inquiry model of professional development.

These aforementioned models of staff development are considered traditional forms of professional development, with the exception of the inquiry model. Traditional models are influenced by forces outside of the classroom such as administrators, researchers, and or government officials. Robb (2000) asserted that traditional forms of professional development
imply that the experience is a single event with an authority outside of the classroom imparting information and then moving on.

Hawley and Valli (1999) described a new consensus model of professional development similar to the inquiry model where teachers participate in “collegial opportunities to learn skills that are linked to solving authentic problems defined by the gaps between goals for student achievement and actual student performance” (p.127). This model of professional development is embedded in the bond between professional development and school improvement as well as current research on learning (Fullan 1993; Guskey, 1995; Pink & Hyde, 1992). The consensus model is structured not by professional activities but by principles of professional development that reach to the core of classroom improvement. Robb (2000) described the new consensus model of professional development as a constructivist model where “learning is not an event but a process, during which learners reinvent, reorganize, and construct knowledge through active learning and by linking new information to what they already know” (p. 14).

**Features of Professional Development**

Contemporary research on professional development acknowledges models of professional development. However, contemporary researchers choose to look toward principles or features of professional development that lend themselves to appropriate professional development despite the model of professional development being used (Desimone, 2011; Hawley & Valli, 1999; Speck & Knipe, 2005). Hawley and Valli (1999) identified eight design principles for high quality professional development. Desimone (2011) described five core features necessary for high quality professional development.
According to contemporary research, high quality professional development consists of activities that are content focused (Desimone, 2011; Hawley & Valli, 1999; Speck & Knipe, 2005). The superior professional development should focus on what teachers need to learn based on student achievement data in their perspective subjects rather than what they want to learn. This feature lends itself to current classroom assessment practices due to the changing demographics of a teacher’s classroom from year to year. The NBPTS encourages teachers to develop themselves according to standards based on their subject or grade level taught. The modules involve the development of skills or knowledge that addresses specific classroom needs based on the subjects or grade level assessments.

Active learning is a core feature to appropriate professional development for classroom teachers (Desimone, 2011; Hawley & Valli, 1999; Speck & Knipe, 2005). High quality professional development involves teachers in the planning, implementation, reviewing, and revising of the activities as well as the data-gathering methods that inform the professional development enterprise. The NBPTS process requires teachers to determine the needs in their classroom and to seek out research-based activities to meet the needs in their classroom. This activity may include attending a workshop or conference or it may include providing professional learning experiences to meet the needs of their peers to assist in meeting classroom goals.

Professional development that is superior to typical professional development experiences requires coherence (Desimone, 2011; Hawley & Valli, 1999; Speck & Knipe, 2005). The professional development experience engages teachers consistently on a multitude of professional levels including other professional development experiences, their personal philosophy of education, and local and state policy and reforms. NBPTS insists on the use of
certification standards that involve the fusing of personal, systemic, and professional development in a coherent manner with the goal of improved student achievement.

Traditional forms of professional development are often fragmented and detached from school reform. Contemporary researchers call for high quality professional development to include the feature of duration whereas, the professional development is continuous and supported as well as ongoing (Desimone, 2011; Hawley & Valli, 1999; Speck & Knipe, 2005). The conceptualization of NBPTS is through the standards applied in the classroom by the classroom teacher as part of the classroom curriculum year after year not as a one-shot experience.

Contemporary features of professional development include collective participation where teachers participate in professional development as part of a community of learners (Desimone, 2011; Hawley & Valli, 1999; Speck & Knipe, 2005). Professional development for a community of learners involves teachers working together with their peers to solve problems that relate to their classroom but also involve the school as whole or the district. These activities can involve interdisciplinary teaming, curriculum development and critique, action research, and/or study groups (Speck & Knipe, 2005). The fourth portfolio entry of the NBPTS process involves the evaluation of the teacher as part of a learning community. The final principal emphasizes that “teachers are part of a learning community” (NBPTS, 2006, p. 7).

Regardless of the model of professional development that is used in presentation, contemporary research indicates that the worth of the experience is based on the presence of the five core features of high quality professional development previously discussed (Desimone, 2011; Speck & Knipe, 2005). It is through contemporary writings on features of professional development that Speck and Knipe (2005) presented a definition of high quality professional
development where the activity involves “a sustained collaborative learning process that systematically nourishes the growth of educators (individual and teams) through adult learner-centered, job-embedded processes. It focuses on educators’ attaining skills, abilities, and deep understandings needed to improve student achievement” (pp. 3-4).

Traditional models of professional development and contemporary models of professional development lend themselves to utilizing NBPTS as an effective form of professional development. The process itself is voluntary according to emerging models of professional development (Fullan, Hill, & Crevola, 2006; Hawley & Valli, 1999; Robb, 2000; Speck & Knipe, 2005). The certification process encourages candidates to engage in discussion and sharing of knowledge within the profession. The candidate is required to evaluate his professional practice within the classroom and outside of the classroom while basing instructional decisions on standards established through research. This literature review presents research that supports the use of the NBPTS process as appropriate professional development.

National Board for Professional Teaching Standards

In the United States, educational reform has focused on teachers and their responsibility for student achievement. Shankner (1986) declared that educational reform would achieve little without the involvement of educators. In 1987, the NBPTS was created to “establish high and rigorous standards for what teachers know and should be able to do, to certify teachers who meet those standards, and to advance other education reforms for the purpose of improving student learning in America’s schools” (NBPTS, 2001, p. 6).

The National Board for Professional Teaching Standards (NBPTS, 2006) is a board founded by the Carnegie Foundation and supported by other public and private funders. The
board consists of educators, politicians, and business people who have a vested interest in writing standards and creating assessments for national certification leading to the improvement of education in America. The NBPTS standards include 24 certification areas that are written around the five core principles of NBPTS:

- Teachers are committed to students and their learning.
- Teachers know the subjects they teach and how to teach those subjects.
- Teachers are responsible for managing and monitoring student learning.
- Teachers think systematically about their practice and learn from experience.
- Teachers are members of learning communities. (p. 7)

Each of the five core principles are the result of decades of research related to effective teaching practices. Certification area is supported by standards relevant to the subjects and support student learning and professional development.

*The NBPTS Process*

The NBPTS process is an intensive professional experience for teachers who have received candidacy status. A teacher can apply for NBPTS candidacy when he has obtained a baccalaureate degree; has 3 years of teaching experience in early childhood, elementary, middle, or secondary schools prior to submitting an application; and holds a valid state teaching license for each of those 3 years (NBPTS, 2011). Currently, the cost to apply for the NBPTS certificate is $2,500.00. Each state provides a variety of financial support for candidates as well as recipients of the NBPTS certificate.

The NBPTS certification process can take from 1 to 3 years to complete. During this period, the candidate becomes familiar with the standards from their certificate area. For this
study, the candidates are involved with the standards relevant to the Exceptional Needs Specialist Standards (see Figure 1).

Figure 1. NBPTS Exceptional Needs Standards (NBPTS, 2011).

Each candidate participates in four portfolio entries and six 30-minute online assessment exercises at an assigned assessment center (see Table 1). Portfolio entry one is titled “Assessment Informs Instruction” (NBPTS, 2011). The candidate is required to probe a student’s learning or behavior problems through formal assessment. The candidate formulates questions, develops an intervention, creates goals, provides ongoing assessment, and instructs the student using the new plan. Entry one is documented by the candidate providing a question document, an assessment tool, and a written commentary related to the experience based on NBPTS (2011) standards.
<table>
<thead>
<tr>
<th>Entry</th>
<th>Name/ Subject</th>
<th>Description of entry/ exercise</th>
</tr>
</thead>
<tbody>
<tr>
<td>Portfolio Entry 1</td>
<td>Assessment Informs Instruction</td>
<td>Demonstrate your ability to investigate a student’s learning or behavior need, formulate a meaningful question directly related to that student’s need, design and/or select and then use an assessment tool or tools, use the information gathered to implement new or modified goals, and then instruct in order to address the student’s learning or behavior need.</td>
</tr>
<tr>
<td>Portfolio Entry 2</td>
<td>Fostering Communication &amp; Literacy Development/ Fostering Communications Development</td>
<td>Demonstrate how you design and implement instruction that furthers student learning in communication or literacy. You provide evidence of your ability to plan and deliver instruction to a student of your choosing and analyze and reflect on your work with this particular student.</td>
</tr>
<tr>
<td>Portfolio Entry 3</td>
<td>Enhancing Social/ Emotional Development/ Enhancing Social Development</td>
<td>Demonstrate how you design and implement meaningful learning experiences to further an individual student’s social and/or emotional development and to facilitate that student’s participation in a group and/or environment.</td>
</tr>
<tr>
<td>Portfolio Entry 4</td>
<td>Documented Accomplishments: Contributions to Student Learning</td>
<td>Illustrate your partnerships with students’ families and community, and your development as a learner and collaborator with other professionals, by submitting descriptions and documentation of your activities and accomplishments in those areas.</td>
</tr>
<tr>
<td>Exercise 1</td>
<td>Development and Behavior (Path Specific)</td>
<td>Demonstrate your knowledge of social development and behavior in students with exceptional needs in your area of specialty.</td>
</tr>
<tr>
<td>Exercise 2</td>
<td>Numeracy (Common)</td>
<td>Demonstrate your knowledge of numeracy skills instruction for students with exceptional needs.</td>
</tr>
<tr>
<td>Exercise 3</td>
<td>Literacy (Path Specific)</td>
<td>Demonstrate your knowledge of literacy skills and of instruction for students with exceptional needs in your area of specialty.</td>
</tr>
<tr>
<td>Exercise 4</td>
<td>Transitions and Career Development (Path Specific)</td>
<td>Demonstrate your knowledge of transitions and career development for students with exceptional needs in your area of specialty.</td>
</tr>
<tr>
<td>Exercise 5</td>
<td>Assessment (Common)</td>
<td>Apply your knowledge of assessment and of students with exceptional needs.</td>
</tr>
<tr>
<td>Exercise 6</td>
<td>Collaboration (Common)</td>
<td>Demonstrate your knowledge of professional collaboration in the field of exceptional needs.</td>
</tr>
</tbody>
</table>
Portfolio entry two involves the candidate “Fostering Communication and Literacy Development” (NBPTS, 2011). The candidates demonstrate how they encourage the development of communication skills or literacy skills through evidence of planning and instruction. The candidates document proof of planning and instruction through submission of a 15-minute videotape of instruction and a written commentary based on the video (NBPTS, 2011).

Portfolio entry three is titled “Enhancing Social/Emotional Development” (NBPTS, 2011). The standards relevant to this entry focus on the candidate’s ability to provide instruction to promote a students’ social/emotional development and to foster the individual students’ ability to function within a group and/or classroom environment. The portfolio entry involves the planning and instruction of activities that advance social/emotional development for a student of the candidate’s choice. This entry is documented through a 15-minute video and a written commentary based on the recording.

The final portfolio entry, “Documented Accomplishments: Contributions to Student Learning,” involves documentation of the candidate working with families and the community, colleagues, and evidence of how that work impacts student learning (NBPTS, 2011). The standards are demonstrated through the ability of the candidate to reflect on their activities and accomplishments in regard to student learning. The candidate makes conscious choices to improve their ability to impact student learning rather than simply fulfill job requirements.

The assessment center exercises reflect on subject matter and pedagogy in regard to special needs students. Exercise one, “Social Development and Behavior,” requires the candidates to demonstrate their knowledge of social development and behavior of special needs students as well as strategies to address the needs of students with disabilities. Exercise two,
“Numeracy (Common),” involves the candidates demonstrating their knowledge of instructional strategies and resources for providing a student with disabilities instruction on a particular topic. Exercise three, “Literacy (Path Specific),” requires the candidates to discuss one literacy skill and two instructional strategies to meet the literacy skill for a student with exceptional needs (NBPTS, 2011).

Assessment center exercise four focuses on “Transitions and Career Development (Path Specific)” where the candidate describes factors that must be considered for students with disabilities who are transitioning as well as strategies for developing a career plan. Exercise five, “Assessment (Common),” involves the candidates depicting their knowledge of assessment and discusses the types of assessments used with students with disabilities. Exercise six, “Collaboration (Common),” entails the candidates describing their knowledge of professional collaboration for students with disabilities (NBPTS, 2011).

The NBPTS portfolio and assessment center exercises are scored on a 12-point score scale by teachers in the certificate area of certification who have completed an intensive training program in scoring the assessments related to the NBPTS. The scale is created using levels of performance with level four being the highest and level one being the lowest. In addition to the levels, the candidate can receive a plus (+) or minus (-) in variation to the level. The candidate’s allocated score for the NBPTS process is provided according to the following standards:

The highest assigned score for an entry or assessment center exercise is 4.25 (4+).
The lowest assigned score for an entry or assessment center exercise is 0.75 (1-).
Level 4 or Level 3 performances represent accomplished teaching practice.
Level 2 or Level 1 performances represent less than accomplished teaching practice.
A Level 4 or Level 3 performance is not required for each entry and exercise. An accomplished performance on one may compensate for a less than accomplished teaching performance elsewhere.

A total weighted scaled score that equals or exceeds 275 points is required to achieve National Bard Certification. You must have a numeric score on all 10 elements (portfolio entries and assessment center exercises), regardless of your total weighted scaled score, to achieve National Board Certification (NBPTS, 2011).

A candidate who does not achieve certification in the first year, can bank his or her score for up to 24 months. During this period, they can retake any of the portfolio entries on which they did not obtain a score of 2.75. The new scores replace the original score and the candidate is awarded the NBPTS certificate, if their total score is higher than 275.

The recognition provided for educators who receive certification indicates the accomplishment of NBPTS recipients. Current research has focused on a variety of issues related to the National Board Certification process. The purpose of this review of the literature was to determine the impact of NBPTS on teacher quality regarding professional development.

**NBPTS and Teacher Learning**

Tracz Sienty, Todorov, Snyder, Takashima, and Penbene et al. (1995) conducted the first NBPTS research following the first group of educators to complete the NBPTS process. The purpose of this study was to determine the changes of teachers’ perceptions of their effectiveness due to their involvement in the performance-based portfolio assessment involved in the NBPTS certification process. Forty-eight NBPTS candidates were asked to rank themselves on a 10-point scale on a 37-item survey prior to completing the NBPTS process. After completing the portfolio
process, they were asked to give another rating of their teaching abilities. Qualitative data were collected through the candidates’ personal journals kept during the process and from individual interviews that were taped and transcribed.

The quantitative data were analyzed using 37 dependent \( t \) tests for each of the ability items. Most of the before means were close to 7 while most of the after means were close to 9. In all cases, the \( t \) tests were significant at least at the .0004 level and generally at the .0001 level.

The qualitative data were reviewed and reported based on the question asked. The qualitative data results indicated that educators shared positive experiences from completing the portfolio process inherent in the NBPTS (2006) process. Educators reported that they improved in areas related to the classroom environment, instruction, assessment, and collegiality. The researchers stated that the self-examination portion of the portfolio was beneficial, resulting in affirmation of their teaching philosophy or the decision to make changes to their philosophy. As a result of this study, Tracz et al (1995) encouraged the use of portfolio assessments to develop an educator’s teaching skills.

Keiffer-Barone, Mulvaney, Hillman, and Parker (1999) utilized a qualitative research design to evaluate the experience of the NBPTS candidates through the development of a community of learners based on mentoring relationships and peer discussion. The researchers utilized a large urban school district in the Midwest where five veteran English Language Arts teachers were pursuing NBC. The purpose of this study was to explore the NBC process and to describe the network of support provided for these candidates by their school district. The study began with participant interviews and reflective writing completed by the five candidates in regard to their views on the NBC process and their expectations of mentoring to facilitate the process. Each candidate and their mentor met twice a month for a total of eight meetings.
throughout the process. The meetings were audio-tape recorded, as they discussed and developed their product. The data were analyzed and interpreted by means of content analysis using patterns in the needs and concerns of the candidate, venues of support, and the nature of mentoring provided. The data sources were coded for similarities and differences.

The findings of this study reflect a triangulation of findings with multiple sources of data (field notes, documents, interviews, meeting transcriptions) as well as multiple perspectives (participant, researcher, research team) in data analyses support the findings of this study. Keiffer-Barone et al. (1999) contended that the NBPTS process does facilitate teacher learning. The study resulted in the development of a community of learners for the NBPTS candidates and the NBPTS mentor where the candidates developed the ability to represent their classroom teaching through writing and reflection. The participants in the study reported a positive experience in learning through the NBPTS process and the development of their learning community.

Tracz, Daugherty, Henderson-Sparks, Newman, and Siety (2005) targeted the candidates’ perceptions concerning the impact that the process had on their teaching skills and classroom practice. Researchers conducted semi-structured, open-ended interviews of 25 educators by asking specific questions about their perceptions of the specific impact of the NBPTS process over the telephone. The interviews lasted from 30 to 90 minutes in length. The data were collected by recording the conversation or by taking intensive notes, which were coded and evaluated for patterns.

The data themes indicated “reflection, assessment, and professionalism” (Tracz et al., 2005, p. 47) from the educators’ involvement in the National Board for Professional Teaching Standards (NBPTS, 2006) process. The NBPTS candidates reported gaining invaluable insight
when reflecting on their teaching practice. This resulted in changes in the interactions that they had with their students through assessment processes as well as the interactions that they had with their colleagues. Unlike the prior study, the majority of the NBPTS candidates in this study reported that they did not experience changes in the development of their learning environments because they had created a positive learning environment before engaging in the NBPTS process. The implications for this study involved the use of the NBPTS process as a viable means of improving classroom practice in regard to reflecting on classroom practices, using assessment to guide classroom practices, and encouraging educators to engage in professional learning communities outside of the classroom.

Lustick (2002) questioned the NBPTS candidates about the information they were learning from the experience. The study used a cross-sectional pre-test and post-test design to compare the results. The study involved two groups of science teachers. Each teacher participated in a 1-hour structured interview to determine the NBPTS candidates’ general ideas about teaching and the NBPTS process. The interviews were conducted, transcribed, and analyzed. The interviews resulted in a framework for thinking about teacher learning in relation to the National Board for Professional Teaching Standards (NBPTS, 2006) process (Lustick, 2002). Lustick concluded that the NBPTS process assists teachers in developing effective management strategies for issues related to their work. These issues are related to the learning outcomes, classroom management, and the development of professional peer relationships.

Lustick and Sykes (2006) concluded that the National Board for Professional Teaching Standards (NBPTS, 2006) process advances teacher learning. These researchers conducted a 15-month study of three groups of candidates from three separate cohorts of candidates utilizing a quasi-experimental design. Each participant in the study was given a pre-measure of elements
known and a post-measure of elements learned to determine the causality between certification and teacher learning. The participants in the study were administered a structured stimulus response interview where the participants were given scenarios and asked to respond to the scenarios based on the NBPTS science portfolio requirements and standards. The data collected were analyzed using one-tailed contrast t tests to determine significance. The value of the contrast showed a p value of .009, which is significant at the alpha level of .05.

Lustick and Sykes’s (2006) findings related to teacher learning were complex. On an individual basis, the qualitative data indicated that educators related the NBPTS (2006) to a demonstration where the candidates performed teaching in order to complete the process. Other educators stated that the process itself took away from the instructional time in their classroom and saw the process as a distraction. Even so, Lustick and Sykes concluded that teacher learning does take place as a result of participating in the NBPTS process and that it can be an effective means of professional development for educators. This conclusion was gained through the examination of the quantitative data where there were significant changes in mean scores from pre-test to post-test with the intervention having an overall effect size of .475. Therefore, the investment for local districts and states in the NBPTS process is worthwhile. However, the researchers indicated that further research was required into the type of learning that takes place, the duration that the changes last, and the impact of the practice on student achievement.

Cannata, McCrory, Sykes, Anagnostopoulos, and Frank (2010) asked whether NBPTS certified teachers engage in leadership roles and have influence that may be attributed to board certification. The investigators surveyed entire teaching faculties in 47 elementary schools in two states totaling 1,583 surveys with an 84% response rate. Data were collected on the demographics of each teacher as well as the leadership roles that the teacher participated in on
the local, district, and state level. The data were compared using chi-square statistics and an exploratory factory analysis was performed which yielded a reliability of .70 at the school level, .65 at the district level, and .59 at the state level.

The research on NBPTS teacher leadership and its perceived influence on policy indicated that NBPTS teachers engage in more leadership activities at the local and district level than non-NBPTS teachers. The survey indicated that 70% of NBPTS teachers mentor in their school and 16% mentor in their district compared to 39% of non-NBPTS teachers in their school who mentor and 8% who mentor in their district. The information indicated that the NBPTS teachers do not report greater influence over school-wide policy than non-NBPTS teachers. The information ascertained from this research indicates that the effect of NBPTS status on teacher leadership opportunities is complex. The effects appear to be most profound at the local level for the NBPTS teacher. The data indicated that teacher leadership activities do not guarantee greater influence on school policy.

Research on teacher learning has indicated that teachers benefited from the NBPTS process by learning to handle innate classroom issues such as managing uncertain outcomes, managing complex tasks, and managing professional isolation (Lustick, 2003). The NBPTS process encouraged educators to utilize the process as a form of professional development that focused on reform in the classroom and active learning on behalf of the educator (Porter, Garet, Desimone, Yoon, & Birman, 2000). The requirements of the NBPTS process forced educators to move beyond their classroom and to seek knowledge from research supported practice. The candidate/educator could no longer afford to remain closed in his/her classroom and remain an effective educator.
Keiffer-Barone et al. (1999) contended that the NBPTS process facilitates teacher learning. Keiffer-Barone et al. utilized a qualitative research design to evaluate the experience of the NBPTS candidates through the development of a community of learners based on mentoring relationships and peer discussion. The study resulted in the development of a community of learners for the NBPTS candidates and the NBPTS mentor where the candidates developed the ability to represent their classroom teaching through writing and reflection. The participants in the study reported a positive experience in learning through the NBPTS process and the development of their learning community.

Lustick (2002) asserted that the alignment of professional standards and instructional pedagogy in education, as well as the development of a cohesive discourse for educators, will result in the improvement of teacher quality through professional development. Lustick and Sykes (2006) supported the alignment of professional standards and instructional pedagogy. Furthermore, the authors insisted that the NBPTS process is worth public investment because “teachers are undertaking worthwhile learning and bolstering the position of advocates for professionalism as a policy choice” through NBPTS certification (Lustick & Sykes, 2006, p. 29). Lustick (2002) and Lustick and Sykes (2006) asserted that the NBPTS process is a worthwhile form of professional development where teacher learning takes place with “dynamic” results (Lustick & Sykes, 2006, p. 30).

**NBPTS and Student Achievement**

Hawley and Valli (1999) asserted that traditional models of professional development have little chance of influencing student learning, consequently, the pleas to the educational community to embrace a new consensus model of professional development, specifically the
Critics of the NBPTS process as appropriate professional development argued that the process has no influence on student achievement.

Bond, Smith, Baker, and Hattie (2000) investigated how National Board Certified Teachers (NBCTs) perform in the classroom compared to candidates for National Board Certification (NBC) who did not achieve certification. The researchers focused on “comparative teaching practices, comparative teaching outcomes, and comparative professional activities” (pp. 5-6). The pool of participants involved 65 teachers who had attempted the NBPTS process in the Early Adolescent/ English Language Arts and Middle Childhood/Generalist certificate area. Thirty-one of the participants were certified by the NBPTS and 54 of the participants did not meet certification requirements.

The data collected for this study included teachers’ instructional objectives and lesson plans for a given instructional unit, observational visits to all 65 teachers’ classrooms, and scripted interviews of the teachers and their students. This information was compiled into a portfolio for comparing teaching practices. The student data (teaching outcomes) were collected from student products and artifacts in response to the instructional unit and student writing samples in response to prompts provided by the researchers. The data for the “comparative professional practices” were collected through telephone interviews.

The data were analyzed by professional educators trained to assess the data for this research using a protocol that was developed based on 15 attributes used by expert teachers from the literature review. In comparing teaching practices, the data yielded inter-rater indices for 13 dimensions, which ranged from a low of .37 to a high of .95 with an inter-rater reliability of .79. Using the Bonferroni correction, it was determined that 8 of the 13 mean rating differences were statistically significant at the .05 level. Data collected to determine the comparative outcomes for
this study involved student work. The researchers had difficulty obtaining student work samples that could be scored for the purposes of the research, which limited them to the use of 36 teachers’ student work samples. The SOLO taxonomy of Biggs and Collins (1982) was used to evaluate student work. The data collected resulted in 74% of student work samples scored within the relational or extended abstract range for NBPTS certified teachers whereas only 29% of the student work samples scored within the relational or extended abstract range for teachers without NBPTS certification ($X^2 = 1.06, p < .01$). The data used to reflect comparative professional practices included interviews that were analyzed using a score scale ranging from .75 to 4.25. The resulting scale scores on the 12 categories of activities were combined into a single score for comparison.

The data comparing NBCTs and non-NBCTs resulted in the NBCTs obtaining higher mean scores on 11 of the 13 dimensions of teaching excellence. The researchers concluded from these data that the NBPTS process is determining the teachers that possess the qualities of an expert teacher. The data collected and analyzed in regard to professional practice did not indicate that NBCTs are being used as experts because of their NBPTS certification. In regard to student outcomes, the data reflected that students of NBPTS certified teachers exhibit a deeper understanding of integrated, coherent, and higher levels of abstract thought. The researchers concluded that the implications resulting from this research are bold in that it is obvious that the NBPTS certification process is distinguishing expert teachers, and policymakers will do well to recognize that the teachers are assets and to use them as such.

Cavalluzzo (2004) conducted a study that addressed the association between students’ achievement in mathematics for ninth and tenth graders and NBPTS certification. The study involved the examination of testing outcomes for ninth and tenth graders during the 2001, 2002,
and 2003 school years. The participant pool included 3,049 students who were instructed by a NBPTS teacher, 4,749 students who were taught by a NBPTS applicant, and 1,409 students who were taught by non-NBPTS teachers.

The data were collected from the ninth and tenth grade students’ end-of-the-year exams, the office of human resources, and the office of professional development. The data involved test scores for the students. The office of human resources provided information on the teachers’ performance according to attributes of a quality teacher. The office of professional development provided information on the teacher NBPTS certification status. The data were analyzed through the comparison of summary statistics.

The results of this study indicated that NBPTS certification is an effective signal of teacher quality. However, the researcher questioned whether the NBPTS certification experience is the indicator of quality or is quality a personal trait of the individual who pursues advanced certification through NBPTS as well as advanced professional development experiences. Even so, the implications of this study indicate that pay increases as a result of NBPTS certification allows school systems to invest in quality educators.

Goldhaber and Anthony (2004) conducted the first large-scale study assessing the relationship between the NBPTS certification of teachers and elementary-level student achievement. This study compared student achievement data for students taught by National Board Certified Teachers (NBCTs) to unsuccessful NBPTS applicants in North Carolina. The participants involved in this study were students in the third, fourth, and fifth grades. The researchers were able to complete an 80% match rate between students and teachers for this study with approximately 9,000 students having a teacher who had gone through the NBPTS process and approximately 6,000 students being taught by a teacher with an NBPTS certificate.
The data collected were scores on end-of-the-year reading and math tests during the 1996-1997 school year and the 1998-1999 school year. The researchers obtained demographic data as well as testing data from North Carolina’s Department of Public Instruction for the teachers and the students involved in the study. The data were analyzed by converting the test scores into Z-scores for ease in comparison.

The students who had a teacher with NBPTS certification showed more growth in reading (6.18 points) and math (10.21 points) where the difference was statistically significant at the 1% level than the students with teachers that did not have NBPTS certification in reading (5.69 points) and math (9.75 points). The authors concluded that the NBPTS certification process is identifying more effective teachers and that NBPTS certified teachers were effective with their students prior to achieving NBPTS certification. The implications of this study are implications for review by public policyholders where the investment in the NBPTS certification process is yielding positive returns by demonstrating that teacher effectiveness can be measured using assessments such as the NBPTS process. However, the process is an expensive process and the researchers have questions concerning the continued effects of the teachers after they receive the NBPTS certificate and are no longer immersed in the NBPTS process.

Vandervoort, Amrein-Beardsley, and Berliner (2004) examined the relationship between National Board certification status and students achievement in the state of Arizona. The participants in this study involved 35 teachers certified by the NBPTS, 24 principals, and 14 school districts. Qualitative data were collected through teacher and principal descriptive surveys and two single observations. Quantitative data were obtained from Stanford Achievement Test-Ninth Edition scores. The design of the study was classified as an ex-post facto, causal-comparative research design.
The statistical procedure used with the data depended on the type of question asked. Some of the questions used a Likert-type scale and others used percentages or mean numbers to express the data. In order to determine the adjusted gain scores, ANCOVA calculations were performed using a univariate, general linear model. The adjusted gain was determined one subject at a time.

The teachers survey was answered by 92% of the NBPTS certified teachers. The questions covered background information about the teachers, views about assessment, and NBPTS certification experience. All but one of the NBPTS teachers reported assessment as important and 55% of them reported changing their curricular focus to administer the test. The NBPTS certified teachers reported the NBPTS certification process as being significant professional growth experience. The principal survey asked questions about their school, about the NBPTS teachers that they supervise, and student assignment procedures. Seventy-one percent of the principals reported that they assign high needs students to NBPTS teachers at the same rate that they assign high needs students to teachers without the NBPTS certification. Seventy-five percent of the principals reported that the teacher improved as a teacher after the NBPTS certification experience. The principals reported a noticeable change in the teachers’ confidence, ability to lead, and use of reflective practice.

The SAT-9 scores data presented information where students of the NBPTS certified teacher made over 1.3 months greater gains per year in reading than did non-NBPTS certified teachers. The students showed 1.4 months greater gain than their peers in math. The information gained from this study indicates that NBCTs in the state of Arizona are judged to be superior when compared to non-NBPTS certified teachers. They are leaders in their field and have proven
on average to raise student achievement. According to this study, providing support to the 
NBCTs in the state of Arizona would be worthwhile investment for policymakers.

Cantrell, Fullerton, Kane, and Staiger (2007) conducted a study that tests whether the 
scores issued by NBPTS are related to teacher impacts on student achievement. The study 
included 99 teacher pairs from a single school district. The pairs included one teacher with 
NBPTS certification and one teacher without NBPTS certification.

The data were collected using Stanford-9 test score information from the spring of 1999 
through the spring of 2005. The class roster for each teacher was randomly assigned. The 
researchers obtained data concerning each NBPTS certified teachers’ NBPTS scaled score from 
their portfolio/assessment experience. The researchers also compared experimental and non-
experimental estimates of the impact of the NBPTS teachers in the district using student test 
 scores.

Baseline data were collected and characteristics were established. Data collected using 
the California standards test resulted in data used to determine the achievement of the two 
populations of students. The students assigned to NBPTS certified teachers outperformed the 
students assigned to the comparison teacher by .07 standard deviations. The difference was 
statistically significant at modest levels (p-value = .067). The data collected indicated that 
students of teachers with NBPTS certification outperform students of teachers without NBPTS 
certification on Stanford-9 and the California achievement tests.

The researchers concluded that the NBPTS scoring process does identify effective 
teachers. However, the researchers suggested that information obtained from the NBPTS process 
about the candidate teacher could be used more effectively. The authors stated that the 
information from the NBPTS assessment process could assist policymakers in determining the
placement of teachers as well as the placement of students in the classroom of teachers who are NBPTS certified to assist in student gains.

Wasburn, Wasburn-Moses, and Davis (2012) conducted a study to determine the nature and extent to which NBPTS Exceptional Needs Specialists participated in mentoring roles both formally and informally. From the class of 2007, 100 Exceptional Needs Specialists were chosen at random for participation in this study. The authors contacted the participants through electronic mail and requested that they complete a web-based survey concerning their mentoring activities. Of those contacted, 32 participants responded to the web-based survey. The researchers contacted the remaining participants using the traditional paper and pencil method and received 34 more responses.

Descriptive statistics were used to analyze the quantitative data and Chi-square tests were used for the nominal data to compare the amount of time spent participating in formal mentoring activities and informal mentoring activities. The data collected from the open-ended questions were analyzed through coding the responses as negative, positive, or neutral. The data indicated that NBPTS Exceptional Specialists participate in more informal (80.3%) mentoring than formal mentoring (60.6%). These results were statistically significant at the Chi-squared value of 13.213 with a $p$-value of .004.

The researchers concluded that NBPTS Exceptional Needs Specialists do participate in mentoring activities within their educational environment. The participants reported that they provided formal mentoring for novice teachers on activities related to classroom management, emotional support, and activities to improve their classroom practice. This study indicated that formal mentoring duties have more impact on the novice teacher than informal mentoring due to the structured nature of the relationship. The researchers suggested continued research on the use
of the mentoring activities, as a way to enhance student achievement and decrease teacher attrition.

The results of these studies imply an optimistic outlook for American education. However, the research reported concerns about the long-term outcomes of the NBPTS recipients’ effect on student achievement and whether the candidates fall back into traditional practices because of habit (Lustick & Sykes, 2006) or because the local districts support direct instruction curriculums that are scripted and neglect the creativity of the individual educator (Linquanti & Peterson, 2001). Therefore, the literature needs studies that provide insight into the long-term outcomes of the NBPTS process prior to determining the effective use of the NBPTS process as professional development.

Summary

In Chapter 2, the search procedures were discussed and the study was situated within Constructivist learning theory. Vygotsky (1986) described lower mental functions and higher mental functions. The transformation from lower to higher mental functions accentuates the continued development of a special educator from a master teacher to a professional in education where the special educators take the knowledge and skills that they have obtained through professional development and utilize it in the classroom on behalf of their students. The knowledge and skills that the special educator seeks is no longer information to be learned but information that is to be applied in their classroom as well as to be shared with their learning community. Englert, Tarrant, and Mariage (1992) described the constructivist nature of special educators as teachers who encourage their students to be thinkers and problem solvers in an environment where students are engaged in discourse about cognitive processes and learning.
strategies. Special educators as constructivists remain responsive to the individual students while developing a learning community where students with disabilities can flourish (Englert et al., 1992).

The education of students with disabilities has been and continues to be an enigma to the community at large. As a result, the development of special education as a profession has been influenced by research, legislation, and professional practice. Brownell, Sindelar, Kiely, and Danielson (2010) positioned the development of special education into three eras of development: the categorical era, noncategorical era, and the inclusion era. The eras evolved from research on individuals with disabilities in the medical and psychological fields of practice. Each era defined special education practice and influenced the development of special education teacher preparation programs.

Special education as professional practice is currently in a state of transition. This state of transition currently impacts research, classroom practice, teacher training and certification, program planning, and state and federal legislation. Brownell et al. (2010) referred to the current state of special education practice as a “response to intervention” where special educators continue to be responsible for including students in the general education environment. However, special educators are responsible for insuring that students with disabilities are participating in the general education curriculum and making sufficient progress in the general education curriculum. The profession of special education is required to produce teachers who are capable of educating students using the general education curriculum. This transition will take place by restructuring special education teacher preparation programs and by offering appropriate professional development for practicing special educators.
Providentially, special educators obtain guidance in seeking appropriate professional development in leading organizations such as CEC. The Council for Exceptional Children provides the profession of special education with knowledge and skills that define appropriate practice for special education professionals. These professional standards include knowledge in foundations, learner characteristics, instructional strategies, individual differences, learning environments, instructional planning, language, ethics and professional practice, assessment, and collaboration (CEC, 2009). The CEC is the leading organization in defining special education classroom practice as well as research and legislation.

The professional development of special educators is determined by classroom practice, research, and current legislation. Even so, the teachers have been provided traditional and contemporary models of professional development in which all special educators as well as general educators participate. Traditional models of professional development include the individually guided model, the observer-assessment model, the development-improvement process model, and the training model (Sparks & Loucks-Horsley, 1990). Contemporary models of professional development involve the inquiry model and a new consensus model of professional development (Hawley & Valli, 1999; Sparks & Loucks-Horsley, 1990).

Contemporary research on professional development concedes to the presence of models for professional development. Conversely, contemporary researchers direct their attention to principles or features of appropriate professional development (Desimone, 2011; Hawley & Valli, 1999; Porter et al., 2002; Speck & Knipe, 2005). These features consist of activities that are content focused and involve active learning, coherent, continuous, supported, ongoing, and collective. According to emerging definitions of appropriate professional development, the NBPTS process is considered appropriate professional development due to the structure of the
process itself. The NBPTS process is voluntary and engages candidates in discussion and sharing of knowledge within the profession (Fullan et al., 2006; Hawley & Valli, 1999; Robb, 2000; Speck & Knipe, 2005).

There is a significant amount of research on the NBPTS certification for general educators in various areas of certification in regard to the use of the NBPTS process as professional development. As described in chapter 2, Lustick (2002) concluded that the NBPTS process is an appropriate form of professional development due to how the process assists teachers in developing effective strategies related to learning outcomes, classroom management, and the development of professional peer relationships. Lustick and Sykes (2006) deduced that participation in the NBPTS process is an appropriate form of professional development wherein teacher learning occurs as a result of participating in the activities related to each module for science teachers.

Tracz et al. (1995) examined the perceptions of the candidates’ effectiveness due to their involvement in the NBPTS process. Candidates reported that they improved in areas related to classroom environment, instruction, assessment, and collegiality. The researchers encouraged the use of portfolio assessments for teachers as a result of this study. Keiffer-Barone et al. (1999) further supported the use of portfolio assessments. The researchers evaluated the experience of the NBPTS candidates through the development of a community of learners found in mentors and peers. The study determined that the NBPTS process does facilitate teacher learning through the development of a community of learners and the ability to represent themselves and their practice through portfolio assessment.

Tracz et al. (2005) targeted the NBPTS candidates’ perceptions concerning the impact the process had on their teaching skills and classroom practice. The data indicated that the NBPTS
candidates perceived that they gained invaluable insight into reflecting on their teaching practice and utilizing assessments to guide their teaching practices. Unlike the prior study (Tracz et al., 1995), research participants did not indicate that they gained insight on developing the learning environment in their classrooms because they felt as though their learning environment had been developed prior to the NBPTS experience.

Cannata et al. (2010) asked whether NBPTS certified teachers engage in leadership roles and have influence that may be attributed to board certification. The research resulted in complex findings wherein the NBPTS recipient showed increased participation in leadership activities as compared to teachers that do not have NBPTS certification. However, the NBPTS certification recipient did show increased influence on school policy when compared to non-NBPTS teachers.

The improvement of student achievement is the goal for education in the United States. Research on the impact that recipients of the NBPTS (2006) certificate have on student achievement has indicated that students of NBPTS recipients achieve at a higher rate than students instructed by an educator who has not achieved the NBPTS certificate (Bond et al., 2000; Cantrell et al., 2007; Cavalluzzo, 2004; Goldhaber & Anthony, 2004; Vandervoort et al., 2004). O’Conner (2003) reported that recipients of the NBPTS certificate obtained higher degrees in comparison to educators who had not received the NBPTS certificate and the NBPTS recipients valued autonomy in their teaching practices. Further, Goldhaber and Anthony (2004) stated that educators showed increased confidence in their teaching abilities and as leaders in education. Washburn, Washburn-Moses, and Davis (2012) showed the use of NBPTS Exceptional Needs Specialists as mentors of novice teachers and the benefits that could be gained through the development of such a relationship.
The critics of the NBPTS (2006) question the use of the NBPTS process as a form of professional development due to the development of a hierarchy within the teaching profession and the distancing of communities in response to national standards (King, 1994). However, research provides encouraged support for the use of the NBPTS process as a form of professional development due to the ability of the NBPTS to provide a professional development model that is appropriate for the needs of the individual educator’s classroom in today’s dynamic educational environment. The number of NBPTS recipients increases each year.

I hypothesize that the NBPTS (2006) process provides an appropriate means for professional development for special educators, as professional development is defined by the literature. There is a significant amount of research on the NBPTS certification for general educators in various areas of certification. However, the research on the NBPTS certification process in regard to the NBPTS Exceptional Needs Specialist is limited to one study where the researchers determined that the process is not conducive to the special needs population. Therefore, my study will extend the research regarding the use of the NBPTS as an appropriate form of professional development by targeting the special educator’s experience in obtaining the NBPTS certificate.
CHAPTER 3

METHODS AND PROCEDURES

Introduction

The purpose of this study was to determine the extent to which the current practice of professional development within local education districts is supportive of professional development that adheres to research-based professional development standards by administering the NSDC Standards Assessment Inventory-2 (see Appendix A) and to determine the perception of National Board for Professional Teaching Standards (NBPTS, 2006) Exceptional Needs Specialists in respect to the NBPTS (2006) process as a practical means of professional development for special educators based on quality indicators of professional development for special educators. This chapter describes the methodology of the study. A description of the participants, the procedures used to conduct the study, the research questions, the procedures for data collection, the method of data analyses, and assumptions are discussed. The study provides information that will be relevant to educational stakeholders in providing appropriate professional development activities for special educators that is germane to classroom practice.

In defining Constructivism, Wink (2005) engaged a discussion about “literacies” that are socially constructed and reflective of “underlying ways of knowing, thinking, and making complex meanings” (p. 47) of the world. The “literacies” of teaching manifest themselves in the daily interactions that teachers have with their students. The development of the behavior that lends itself to daily, quality teaching is found in the literature on professional development in
which an educator participates. The researcher hypothesizes that the NBPTS certification process is appropriate professional development for special educators within their teaching environment in regard to professional standards of practice presented by the Council for Exceptional Children (CEC).

For this study, the researcher used a mixed methods study design (Ary, Jacobs, Razavieh, & Sorenson, 2006). Phase one of this study involved the quantitative portion of the study utilizing survey research. I administered the *NSDC Standards Assessment Inventory-2* (SAI-2) (see Appendix A) to determine the perceptions of NBPTS Exceptional Needs Specialists certificate recipients in regard to their local schools professional development programs ability to adhere to standards representing best practice for staff learning. Phase two of this mixed methods study involved a phenomenological qualitative research design (Ary et al., 2006). The qualitative research methodology adheres to phenomenological research where I will immerse myself in the professional experiences of five educators who hold the NBPTS certificate as an Exceptional Needs Specialist.

**Research Questions**

1. What are the perceptions of NBPTS Exceptional Needs Specialists certificate recipients of their local schools professional development programs ability to adhere to standards representing best practice for staff learning?

2. What are the perceptions of NBPTS Exceptional Needs Specialists of their professional development practices prior to completing the NBPTS process?

3. What are the perceptions of NBPTS Exceptional Needs Specialists of their professional development practices since completing the NBPTS process?
4. What are the ways in which the NBPTS Exceptional Needs Specialists instructional identity changed through the NBPTS certification process and how might that change inform the local education professional development program?

5. What are the perceptions of NBPTS Exceptional Needs Specialists effectiveness as demonstrated by their response to their involvement in the performance-based portfolio assessment for the NBPTS certification process?

Permission to Conduct the Study

I obtained permission to conduct this study through the submission of a request to The University of Alabama Institutional Review Board (see Appendix B). Permission was obtained from the NBPTS (2006) organization through the submission of a Request for Confidential and Appropriate Use of NBPTS Data for Educational Research form (see Appendix C).
### Table 2

*Research Questions Aligned with Data Collection Instrumentation*

<table>
<thead>
<tr>
<th>Research Questions</th>
<th>Quantitative: SAI-2</th>
<th>Qualitative: Interview</th>
<th>Qualitative: Artifacts</th>
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<td>1. What are the perceptions of NBPTS Exceptional Needs Specialists certificate recipients of their local schools professional development programs ability to adhere to standards representing best practice for professional learning?</td>
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<tr>
<td>2. What are the perceptions of NBPTS Exceptional Needs Specialists of their professional development practices prior to completing the NBPTS process?</td>
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<td>X</td>
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<td>3. What are the perceptions of NBPTS Exceptional Needs Specialists of their professional development practices since completing the NBPTS process?</td>
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<td></td>
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<tr>
<td>4. What are the ways in which the NBPTS Exceptional Needs Specialists instructional identity changed through the NBPTS certification process and how might that change inform the local education professional development program?</td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>5. What are the perceptions of NBPTS Exceptional Needs Specialists effectiveness as demonstrated by their response to their involvement in the performance-based portfolio assessment for the NBPTS certification process?</td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>
Phase I: Quantitative Study

Purpose

The purpose of this quantitative study was to obtain data that would provide answers to the research question presented in Chapter 1: What are the perceptions of NBPTS Exceptional Needs Specialists certificate recipients in regard to their local schools professional development programs ability to adhere to standards representing best practice for professional learning?

Participant Selection

The participants for this study involved a pool of 144 special educators who had obtained the NBPTS (2006) certification in the area of the Exceptional Needs Specialist through self-selection to participate in the NBPTS certification process within the State of Alabama. I contacted NBPTS and obtained electronic mailing addresses and physical addresses for the special educators who had obtained the NBPTS certificate since 1997 when special educators obtained the ability to participate in the NBPTS process in the State of Alabama. The names obtained for participation in this study were based upon the NBPTS Exceptional Needs Specialists registered with the NBPTS organization as NBC teachers within the State of Alabama at the time of this study. I submitted a “Request for Confidential and Appropriate Use of NBPTS Data for Educational Research” (NBPTS, 2007) (see Appendix C) form to the NBPTS organization in order to obtain the necessary information aggregated by state.

The researcher’s “Request for Confidential and Appropriate Use of NBPTS Data for Educational Research” (NBPTS, 2007) (see Appendix C) was denied. However, the researcher was provided the names and the school systems in which the NBPTS Exceptional Needs Specialists in the State of Alabama were apparently teaching. The researcher used her research
skills to determine the electronic mailing addresses for 116 of the Exceptional Needs Specialists in the State of Alabama.

Of the 116 special educators in Alabama invited to participate, 66 responded to the survey, providing a 57% response rate. The survey sample reported working in different roles. Twenty-three percent of the NBPTS Exceptional Needs Specialists surveyed reported that they were content area teachers, 35% reported being special area teachers, and 42% reported that they were support teachers.

The survey sample represented teachers with differing years of experience: 9% of the respondents reported teaching 5-10 years, 15% of the respondents reported teaching more than 25 years, 32% reported 11-16 years of experience, and 44% reported 17-25 years of teaching experience. The survey respondents reported their years teaching at their current school. Two percent reported 0-1 years at their current school, 12% reported 2-4 years, 12% reported 21 or more years, 26% reported 5-9 years, and 48% reported 10-20 years at their current school.

The survey respondents represented Exceptional Needs Specialists working at different levels of instruction for students with exceptional needs. Zero percent reported working at the career/technical level or at the Early Learning level. Two percent reported teaching at the college preparatory level, 3% at the early childhood level, 8% on the middle grade level, 28% at the high school level, and 60% at the elementary level. One hundred percent of the respondents teach in public schools in the State of Alabama. Table 3 provides the mean, range, and standard deviation for the demographic data.
Table 3

Descriptive Statistics for Demographic Data

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<tr>
<td>Valid N</td>
<td>65</td>
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<td></td>
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</tbody>
</table>

Instrumentation

The study was conducted using a mixed methods research design. Survey research involved collecting data by asking structured questions to the population of interest. The use of a survey is the most appropriate method of gathering data related to the research question because of the geographical placement of individuals who have obtained the NBPTS certificate as an Exceptional Needs Specialist and because of the limited number of participants in the NBPTS process as an Exceptional Needs Specialist. Manfreda et al. (2008) indicated that electronic surveys are limited in their use for research purposes due to the response rate related to electronic surveys. However, Wang and Doong (2010) suggested that the use of a well-defined sample frame within a target population can support the data collected being able to be generalized to the target population. Weigold, Weigold, and Russell (2013) reported that self-report survey measures can be conducted using electronic mailing with promising results.

The initial mailing contained the Standards Assessment Inventory-2 (SAI-2) (see Appendix A). The survey was developed by Vaden-Kiernan, Jones, and McCann (2008) to assess schools’ professional development programs in regard to NSDC- Learning Forward standards. The SAI-2 (see Appendix A) is a 50-item survey used to consider staff perceptions of
their professional development program in their schools according to Learning Forward Professional Development Standards. The standards are arranged into seven categories entitled Learning Communities, Leadership, Resources, Data, Learning Designs, Implementation, and Outcomes (Learning Forward, 2011).

Validity. The validity of the survey (see Appendix A) refers to the degree to which inferences can be made based on the results from the instrument (Frankel & Wallen, 2006). The SAI-2 (see Appendix A) provided content validity, criterion validity, and construct validity for 7 out of 12 subscales that were presented in the instrument development pilot study and the subsequent follow-up study. The content validity of the survey is supported by expert and school staff ratings for seven subscales (Denmark & Weaver, 2012; Vaden-Kiernan et al., 2009). Criterion validity was determined by teacher and expert ratings of the degree indicating that the components of schools’ professional development programs reflected the standards for professional learning comparable for schools grouped as both low and high in adhering to the standards (Vaden-Kiernan et al. (2009). Tests of construct validity initially indicated that nine subscales were moderately included: learning communities, leadership, resources, research-based, design, learning, collaboration, equity, and quality teaching (Vaden-Kiernan et al. (2009). The follow-up study on construct validity involved exploratory factor analyses, indicating that the SAI-2 portrays stable school-level constructs such as professional development, leadership, and equity.

The SAI-2 survey is a valid measure for the purposes of this study. The SAI-2 is being used for the purpose of determining the extent of the local schools’ professional development program’s ability to adhere to standards representing best practice for professional learning. The
standards inherent in the NBPTS certification process for the Exceptional Needs Specialist are the result of the Five Core Propositions. A comparison of the NBPTS Five Core Propositions and the Standards for Professional Learning (Figure 2) indicated that the standards are comparable to the Core Propositions, with the exception of one standard which is the standard related to Resources.

<table>
<thead>
<tr>
<th>NBPTS Five Core Propositions</th>
<th>Standards for Professional Learning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teachers are committed to students and their learning.</td>
<td>Leadership</td>
</tr>
<tr>
<td>Teachers know the subjects they teach and how to teach those subjects to students.</td>
<td>Implementation/ Learning Designs</td>
</tr>
<tr>
<td>Teachers are responsible for managing and monitoring student learning.</td>
<td>Data</td>
</tr>
<tr>
<td>Teachers think systematically about their practice and learn from experience.</td>
<td>Outcomes</td>
</tr>
<tr>
<td>Teachers are members of learning communities.</td>
<td>Learning Communities</td>
</tr>
<tr>
<td></td>
<td>Resources</td>
</tr>
</tbody>
</table>

*Figure 2. Comparison of the NBPTS Five Core Propositions and the Standards for Professional Learning.*

*Reliability.* The reliability of the survey (Appendix A) is dependent on the ability of the survey to be consistent in what it measures (Frankel & Wallen, 2006). The SAI-2 (see Appendix A) provided internal consistency reliability. Cronbach Alphas for overall instrument reliability were consistent and high across all three pilot studies ($\alpha = .98$). Reliability estimates for all 7 subscales ranged from good to strong ($\alpha = .71$ to .98) across tests (Vaden-Kiernan et al., 2009; Denmark & Weaver, 2012).
Data Collection Procedures

The researcher obtained the names of NBPTS recipients in the certificate area of the Exceptional Needs Specialist through the NBPTS national office (see Appendix C). The primary researchers used the names given to her by the NBPTS national office to research and locate electronic mailing addresses for each Exceptional Needs Specialist in the State of Alabama. The electronic mailing addresses for 116 Exceptional Needs Specialists were found using local school websites, social media, and the Google search engine. It was determined that the remaining 28 Exceptional Needs Specialists had moved, retired, and/or passed away.

The SAI-2 survey (see Appendix A) was electronically mailed to 116 of the special educators in the State of Alabama who had received NBPTS certification as an Exceptional Needs Specialist and who had maintained current information with the school system on record. The initial mailing included a cover letter indicating the purpose of the study and assuring confidentiality of the survey (see Appendix D) and a survey (see Appendix A and Appendix E). The NBPTS certified teachers were sent an electronic reminder or thank you 2 weeks after the initial mailing. After 3 weeks, a second electronic mailing of the survey (see Appendix A) was sent to those teachers who did not respond. After 4 weeks, a third mailing of the survey (see Appendix A) was sent to those teachers who did not respond. After 5 weeks, a fourth mailing of the survey (see Appendix A) was sent. The primary researcher discontinued the survey (see Appendix A) after six mailings in an effort to obtain a response from the survey population.

Data Analyses

The returned SAI-2 Survey (see Appendix A) was forwarded to the National Staff Development Council (NSDC) for statistical calculation. The statistical calculation reports
include standard and question averages as well as frequency counts by standard questions. The information yielded by the SAI-2 Survey (see Appendix A) through the average scores assigned to each standard indicated areas of strengths and weakness in regard to professional development for participants. The frequency of responses to the questions determined the consensus on the score for the standard. This report is organized by the three standard categories: (a) content, (b) process, and (c) context.

The primary researcher conducted statistical analyses using SPSS (21.0). The SAI-2 survey data were analyzed using a confirmatory factor analysis, Cronbach’s alpha reliability statistic, Chi-2 test of independence, and descriptive statistics. The descriptive statistics included the mean, the range, and the standard deviation.

Limitations

The use of a survey in conducting quantitative data collection has several limitations. Patten (2001) indicated that surveys result in a low response rate or nonresponse resulting in respondent bias. Surveys present the possibility of respondents misunderstanding the questions or not providing accurate responses due to social desirability (Ary et al., 2006). The use of an electronic survey proposed limitations related to response rate (Manfreda, Bosnjak, Berzelak, Haas, & Vehovar, 2008).

Phase II: Qualitative Study

Methods of Preparation

Purpose. The purpose of this phase of the study was to provide a deeper description of the NBPTS Exceptional Needs Specialist certification process from the perspective of the special
educator and how that process informs the professional development experience inherent in the NBPTS Exceptional Needs Specialist process for the special educator. As stated by Corbin and Strauss (2008),

Though we are interested in how persons experience events, and the meanings that they give to those experiences, at the same time we consider that any explanation of experience would be incomplete without (a) locating experience within the larger conditional frame or context in which it is embedded; and (b) describing the process or the ongoing and changing forms of action/interaction/ emotions that are taken in responses to events and the problems that arise to inhibit action/ interaction. (p. 17)

This phenomenological study involved structured interviews and document review. The personal interviews expanded on the qualitative phase of this study by lending a personal element to the study that enhanced the information obtained. This study extended the research on NBPTS certification to include the experience of special educators who had obtained the Exceptional Needs Specialist certificate.

Researcher’s role. Moustakas (1994) labeled the initial experience of preparing for the phenomenological research study as the epoche. The philosophical meaning of epoche is a Greek term developed by the Greek skeptics to mean a suspension of judgment about the everyday existence and actions in the world. Phenomenological epoche, as described by Husserl (1913), is the active process of bracketing in order to see the world or phenomenon freshly without judgment or bias in order to determine the essence of the phenomenon and to describe the essence.

Husserl (1913), Moustakas (1994), and Creswell (2007) warned that the state of epoche is difficult to achieve and theorized that it is almost impossible to achieve a pure state of epoche. However, Moustakas (1994) stated that “the energy, attention, and work involved in reflection and self-dialogue, the intention that underlies the process, and the attitude and frame of
reference, significantly reduce the influence of preconceived thoughts, judgments, and biases” (p. 90). As the primary researcher, I understand that the state of epoche is impossible to achieve considering my experiences and passion for the subject of study.

I participated in the activities of the research design and completed the NBPTS Qualitative Research Interview Protocol for Special Educators (see Appendix F) and was interviewed as a participant of the study by a doctoral candidate who had not participated in the NBPTS process of the study. The purpose of my participation in the study was to acquire a full narrative of my experience as it relates to the NBPTS process. Creswell (2007) referred to this process as bracketing the experience of the researcher. My phenomenological experience followed the same methodological analysis described in the section “Methods of Organizing and Analyzing Qualitative Data.”

**Participant selection.** Moustakas (1994) indicated that there is no “in-advance criteria” (p. 107) for obtaining participants in a phenomenological study only general considerations and essential considerations. Essential criteria for participation in a phenomenological study includes “the research participant has experienced the phenomenon, is intensely interested in understanding its nature and meaning, is willing to participate in a lengthy interview,” and grants the investigator the right to use the information obtained during the interview in publications (Moustakas, 1994, p. 107). Creswell (2007) described sampling procedures used in phenomenological study as criterion sampling where the participants have all experienced the phenomenon in question. The researcher solicited participants at the end of the administration of the survey for the quantitative phase of this study via a request for volunteers to participate in a
follow-up interview. The participants were asked to provide contact information including telephone numbers and work location address.

The literature on the sample size of a phenomenological study varies. However, Creswell (2007) indicated that an appropriate sample size can range between 5 and 25 participants. I sought out five volunteers to participate in the qualitative phase of this study. If the researcher obtains more than five volunteers, the researcher will purposefully select participants based on qualified volunteers.

Methods of Collecting Data

Phenomenological research focuses on the meaning or essence of an individual’s perception of a phenomenon based on memory and acts (Creswell, 2007). Moustakas (1994) indicated that a typical phenomenological research study involves data collection through the long interview. Creswell indicated that other forms of data can be collected such as observations, journals, art, poetry, music, and alternate forms of documentation relevant to the experience.

I contacted the participants by telephone or email to discuss a mutual time to conduct the initial meeting. The initial juncture of this qualitative study involved me mailing or emailing the participant a copy of a NBPTS Qualitative Research Interview Protocol for Special Educators (see Appendix F), which is to be completed prior to the initial meeting. At the initial meeting, I obtained consent from the volunteer research participant. The consent discussion involved the purpose of the study, the time that it took to complete the interview, and my plan for using the information obtained during the interview (Creswell, 2007). I assured full confidentiality for the participant by assuring that secure storage of information obtained during the interview was
provided and all identifiable information was removed during the presentation of information. I discussed informed consent of the study. The volunteer participant signed consent to participate.

Once consent had been obtained, the participant was asked to provide their completed copy of the NBPTS Qualitative Research Interview Protocol for Special Educators (see Appendix F). The secondary juncture of this qualitative study involved a lengthy interview that began with phenomenological research questions suggested by Moustakas (1994) and supplemented by additional open-ended questions based upon the qualitative research conducted by Tracz et al (1995) during the early stages of research into the NBPTS certification process (see Appendix G). The conversation between the researcher and participant was audio taped in order to develop a transcript for data analysis. At the completion of the lengthy interview, I provided the participant with directions for the completion of the final juncture of this qualitative research study.

The final juncture of data collection for this qualitative study involved artifact retrieval. Hence, Moustakas (1994) encouraged researchers to maintain the importance of self-reports “so the research participant felt his or her contributions were valued as new knowledge on the topic and as an illumination of meanings inherent in the question” (p. 110). Therefore, I asked the participants to afford the researcher with artifacts that reflected their NBPTS Exceptional Needs Specialist certification experience. The participants were asked to provide thematic artifacts based upon their NBPTS Exceptional Needs Specialist certification requirements. Each participant was asked to provide four artifacts based upon themes imitating the information they presented during their certification experience. The themes included (a) assessment, (b) communication development, (c) social development, and (d) documented accomplishments. The artifacts included but were not limited to lesson plans, professional evaluations, professional
development archives, professional condemnations, pictures, video recordings, and/or professional writings.

I arranged another meeting with the participant to retrieve the artifact data and to provide the participant with a copy of their lengthy interview transcript to be reviewed. I examined the artifacts presented in response to the prompts provided and asked questions and clarified the information provided to assist in artifact analysis. The artifacts obtained from the NBPTS recipients were used to triangulate the essence of the phenomenon in question, which is the perception of the NBPTS recipients in regard to the NBPTS process being aligned with appropriate professional development standards for special educators.

Qualitative research reliability. The data obtained from the personal interviews of the teachers were observed by me. The interviews were audio recorded and transcribed into a word document for analysis. In order to provide inter-rater reliability, I trained an individual to serve as an inter-rater reliability researcher. The inter-rater reliability researcher was an upper level administrator in a local school system who has his Doctorate in Education. The inter-rater reliability researcher was provided minimal background on the topic of study. He was provided the research questions, the purpose, and a detailed method of performing phenomenological data analyses, according to Moustakas (1994). The purpose of the inter-rater reliability researcher was to “keep the researcher honest; ask hard questions about methods and interpretations; and provide the researcher with the opportunity for catharsis by sympathetically listening to the researchers feelings” (Creswell, 2007, p. 208). The inter-rater reliability researcher and I had consistent access to each other in order to facilitate the progress of the study.
I and the inter-rater reliability researcher each observed the data collected and provide horizontalizing independently to determine if the clusters of meaning and the emerging themes were the result of the data and not the experience of the researcher (Creswell, 2007). After coding the first transcript, I met with the inter-rater reliability researcher to develop a codebook of the major codes found in the transcript (Stoner, 2010). I examined the codes, their names, and the text segments that were independently coded. The initial codebook defined primary codes and secondary codes based on the initial examination of the transcript (Creswell, 2007). I and the inter-rater reliability researcher coded two more transcripts. We met to compare the codes that emerged from the transcripts where I and the inter-rater reliability researcher agree on the text segments being coded rather than the exact passages. We examined the level of agreement between the coders to determine if they were assigning the same code word to the passage. Creswell (2007) indicated that an 80% agreement of coding is sufficient. This process continued until all transcripts were coded. The same process occurred once the group collapsed the codes into themes. The level of agreement was reported as a kappa reliability statistic.

*Qualitative research validity.* Creswell (2007) suggested that researchers present their preliminary findings that involve the themes and descriptions that go into the development of the composite text in phenomenological research to research participants. Therefore, at the conclusion of the data analyses I composed the composite text reflecting the structural description and textural description of the experience of the NBPTS process for special educators. The composite text of the phenomenon was conveyed to the research participants where they were asked to provide member check for accuracy and credibility of the research findings (Creswell, 2007). Member check is the process of providing participants with interview
transcripts, analytical thoughts, conceptual maps, and drafts of the individual textural and structural description of the experience in order to assure that the researcher is representing the participant’s description accurately and completely (Glesne, 2006). The research participants were asked to provide their thoughts on the composite text as well as their thoughts on information that was not included in the composite text.

Methods of Organizing and Analyzing Qualitative Data

Corbin and Strauss (2008) avowed that “the actual procedures used for analyzing data are not as important as the task of identifying the essence or meaning of the data” (p. 160). The authors further elaborated on the value of data collection in a qualitative study in that data analyses begins after the first set of data are collected. Qualitative data collection for this study began with the documentation of the primary researcher’s NBPTS Exceptional Needs Specialist experience in seeking the epoche. Glesne (2006) described the act of data analyses in qualitative research as interplay between description, analysis, and interpretation. The transformation of data in the current qualitative study was documented using a fieldwork notebook that organized data and document research thoughts throughout the process, in an attempt to appreciate the holistic nature of the process.

The current qualitative study began with the administration of the NBPTS Qualitative Research Interview Protocol for Special Educators (see Appendix F). The secondary juncture involved the lengthy interview between the primary researcher and the participant. The final juncture of qualitative inquiry involved the collection of artifacts from the participants.
Data analyses of the NBPTS Qualitative Research Interview Protocol. The data obtained from the Likert-type scales in the NBPTS Qualitative Research Interview Protocol for Special Educators (see Appendix F) were statistically reported using descriptive statistics. The purpose of the NBPTS Qualitative Research Interview Protocol for Special Educators (see Appendix F) was to provide a framework for the interview discussion between the researcher and the participant concerning their perception of their experience in completing the NBPTS Exceptional Needs Specialist certification process in regard to best practices of professional development for special educators. The NBPTS Qualitative Research Interview Protocol for Special Educators (see Appendix F) provided an objective triangulation of data collected.

Data analyses of the NBPTS Exceptional Needs Specialist lengthy interview: Level one interview analyses. Data analysis of the in-depth interviews began with the audio tapings of the interviews being transcribed into word documents. I read each transcript describing each participant’s experience to get a sense of the whole. The inter-rater reliability researcher read each transcript to get an understanding of the transcript as a whole.

Data analyses of the NBPTS Exceptional Needs Specialist lengthy interview: Level two interview analyses. Level two analysis of the data gathered during the structured interviews was analyzed with the intent of examining emerging themes according to phenomenological research where I highlighted significant statements that would provide an understanding of how the participants experience the NBPTS Exceptional Needs certification process. Moustakas (1994) described this process as horizontalizing, where every statement that pertained to the research questions is given equal worth in the analysis of the data. I conducted the act of horizontalizing
by highlighting each statement in the transcript that pertained to the research questions eliciting the experience of the NBPTS process for the special educator. This included sentences or quotes that provided insight into the NBPTS process for special educators. This process took place using the inter-rater reliability researcher performing the same act of horizontalizing on each transcript. Each primary researcher’s horizontalized transcript was compared to the inter-rater reliability researcher’s transcript for congruence and organized into tables.

*Data analyses of the NBPTS Exceptional Needs Specialist lengthy interview: Level three interview analyses.* Level three analyses of the data involved me and inter-rater reliability researcher organizing these statements into “clusters of meaning” or invariant horizons (Moustakas, 1994). The transcripts had all repetitive and overlapping statements removed. This act was completed by organizing the level two analyses data into a Word document where the researchers could compare clusters or invariant meaning units for theme development in regard to the NBPTS process for special educators. The information garnered from level two analyses was presented by me and inter-rater reliability researcher in a conceptual map for understanding and links to emergent themes (Stoner, 2010).

*Data analyses of the NBPTS Exceptional Needs Specialist lengthy interview: Level four interview analyses.* In level four analyses of the data, I stated the emerging themes from the data and organized the themes into a document that reflected theme organization. The invariant meaning units and themes were synthesized into a textural description, which was a description of what the participants experienced through the *NBPTS Exceptional Needs Specialist* certification process.
Data analyses of the NBPTS Exceptional Needs Specialist artifacts. Each participant was asked to provide four artifacts based upon themes imitating the information they presented during their certification experience. The themes included (a) assessment, (b) communication development, (c) social development, and (d) documented accomplishments. The artifacts could include but were not limited to lesson plans, professional evaluations, professional development archives, professional condemnations, pictures, video recordings, and/or professional writings.

Data analyses of the NBPTS Exceptional Needs Specialist artifacts: Level one artifact analyses. Data analysis of artifacts began with a discussion of the artifact and what the artifact represents, which was audio taped. The artifacts were arranged, by me and the inter-rater reliability researcher, into categories garnered from the interview data analyses.

Data analyses of the NBPTS Exceptional Needs Specialist artifacts: Level two artifact analyses. The audio tapings of the descriptions of the artifacts were transcribed into word documents. I read each transcript describing the artifacts. The inter-rater reliability researcher read each transcript to get an understanding of the transcript as a whole.

Data analyses of the NBPTS Exceptional Needs Specialist artifacts: Level three artifact analyses. Level three analysis of the artifact data gathered during the descriptions of artifacts was analyzed with the intent of examining the data for additional themes according to phenomenological research where I highlighted significant statements that provided an understanding of how the participants experienced the NBPTS Exceptional Needs certification process. I conducted the act of horizontalizing by highlighting each statement in the transcript
that pertained to the research questions eliciting the experience of the NBPTS process for the special educator. This process took place using the inter-rater reliability researcher performing the same act of horizontalizing on each transcript. Each horizontalized transcript was compared to the initial table of themes from the lengthy interviews.

*Data analyses of the NBPTS Exceptional Needs Specialist artifacts: Level four artifact analyses.* Level four analyses of the artifact description data involved me and the inter-rater reliability researcher organizing the statements of artifact description into invariant horizons established by the lengthy interview data analyses or creating new clusters of meaning based on the artifact description data.

*Data analyses of the NBPTS Exceptional Needs Specialist artifacts: Level five artifact analyses.* In level five, analyses of the artifact data, I stated the emerging themes from the artifact data and organized the themes into the existing lengthy interview document that reflected theme organization.

*Data Analysis and Organization*

The invariant meaning units and themes were synthesized into a textural description, which is a description of what the participants experienced through the NBPTS Exceptional Needs Specialist certification process. The invariant meaning units and themes were used to also write an imaginative variation or structural description of the experience in regard to the context or setting that shaped the experience of the participants in regard to the NBPTS Exceptional Needs Specialist certification process. The structural and textural descriptions resulted in the
development of the essential, invariant structure or the essence of the NBPTS Exceptional Needs Specialist certification process for special educators that were represented as composite text using verbatim transcripts to synthesize the experience of the NBPTS Exceptional Needs Specialist certification process for special educators.

Limitations

Kilbourn (2006) indicated that qualitative research is not generalizable. Therefore, the use of special educators from the State of Alabama who obtained the NBPTS certificate further inhibited the ability to generalize the results from this study. However, the information gained from the personal experience of the subjects enriched our knowledge concerning professional development for quality special educators.

Qualitative research and, more specifically, phenomenological research are about the lived experience of people. Hence, people bring to research their own bias, beliefs, and assumptions about the topic of research (Corbin & Strauss, 2008). Moustakas (1994) addressed the natural attitude of the researcher and the research participant through the state of the epoche where the individual sets aside their personal bias, beliefs, and assumptions and views the phenomenon from a fresh perspective. Moustakas (1994) warned that the state of epoche is difficult to accomplish and is rarely ever fully attained.

Summary

In conclusion, Chapter 3 described the methodology and research design utilized to investigate my interest in the perceptions of special educators’ experience in completing the NBPTS certification process according to standards of professional development. Quantitative
and qualitative methods of research were used. Survey research utilizing a retrospective research design was used to obtain information about the special educators’ professional development experience according to professional standards during their NBPTS certification experience, their description of their local professional development experiences, and demographic data. The qualitative phase of the study was a phenomenological study where I immersed myself in the environment of the participants by conducting personal interviews with recipients of the NBPTS certificate concerning their experience of obtaining certification and collecting artifacts resulting from the teachers’ personal experience.
CHAPTER 4

RESULTS

Overview

The findings of the quantitative and the qualitative methods used in this mixed-method, phenomenological study are reported in this chapter. The data were reported using the implementation structure of this study. Phase I of the study used quantitative research during which the researcher administered the Standards Assessment Inventory-2 (SAI-2 (Appendix A). Phase II of the study used a qualitative design to obtain a deeper description of the National Board for Professional Teaching Standards (NBPTS) Exceptional Needs Specialist certification process from the perspective of the exceptional needs specialist and how that process informs the professional development experience inherent in the NBPTS Exceptional Needs Specialist process for the special educator. The quantitative data are presented systematically followed by the sequential presentation of the qualitative data. A data collection flow chart can be seen in Figure 3.
Phase I: Quantitative Study

Phase I of this study was conducted in order to administer the SAI-2 survey instrument. The SAI-2 survey was administered to NBPTS Exceptional Needs Specialists in Alabama in order to address the research question presented in Chapter 1: What are the perceptions of NBPTS Exceptional Needs Specialists certificate recipients of their local schools professional development programs ability to adhere to standards representing best practice for professional learning? The SAI-2 instrument targeted the perception of the respondents according to seven factors: learning communities, leadership, resources, data, learning designs, implementation, and outcomes. Data were collected and transferred to the Statistical Package for the Social Sciences software version 21.0 for analyses.
Validity and Reliability

*Confirmatory factor analysis.* A confirmatory factor analysis was conducted in order to “examine the relationships between a set of measured variables and a set of factors that might account for the variables” (Ary et al., 2006, p.393). The SAI-2 defined the variables under review apriori to the administration of the survey for this research. The confirmatory factor analysis was conducted on the 50-question SAI-2 survey using seven variables including learning community, leadership, resources, data, learning design, implementation, and outcomes. The seven factors were extracted under maximum likelihood with a rotation method by means of Varimax with Kaiser Normalization resulting in the use of seven factors and 11 iterations required (Table 4).

The standardized factor loadings indicated variance in that the highest loading was .814 and the lowest was -.157. The results of the confirmatory factor analysis for the current research project differed from the confirmatory factor analysis done by Denmark and Weaver (2012), whereby their factor analysis resulted in the majority of the loadings greater than 0.8 and none lower than 0.5. Even so, the current confirmatory factor analysis indicated that the SAI-2 supports a one-factor (general professional learning) solution rather than a seven-factor solution as did the confirmatory factor analysis ran by Denmark and Weaver (2012). The one-factor solution explained 50.6% of the total variance whereas, the remaining factors resulted in 6.18%, 3.69%, 2.80%, 2.67%, 2.43%, and 2.20% of the total variance respectively (Table 4). The results of the present confirmatory factor analysis indicated that the SAI-2 did not differentiate between the seven factors under study resulting in a single factor survey. A one-factor analysis also was determined by Denmark and Weaver (2012) in previous statistical analysis. Visual inspection of the scree plot indicated a one-factor solution.
Table 4

**Confirmatory Factor Analysis Rotated Factor Matrix for Seven Factors**

<table>
<thead>
<tr>
<th>Question</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
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<tr>
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Factors

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*Note.* LD- Learning Designs; LC- Learning Community

Eigenvalues are used in factor analysis to determine the number of factors that can be extracted from a data set (Statsoft, 2013). The eigenvalues extracted from current data are greater than 1 for seven factors (Table 4). Denmark and Weaver (2012) determined seven factors using the Kaiser Rule, which indicated that factors with eigenvalues greater than 1.0 should be extracted for use in the instrument. Therefore, the researcher supported the use of seven factors presented by Denmark and Weaver (2012) due to their extensive use of the instrument and subsequent development of the survey instrument.

A Pearson’s product-moment correlation was run to assess the relationship between the seven factors assessed in the SAI-2 (Table 5). There was a positive correlation >.70 indicating that there is a strong correlation between the factors of the SAI-2 (Table 5). The strong correlation between the factors indicated significant overlap in the information expressed by the
subscale scores that support a one-factor conceptualization and use of the SAI-2. This data replicated the findings reported by Denmark and Weaver (2012).

Table 6 presents the confirmatory factor analysis data using a one-factor analysis. The data were extracted using principal axis factoring. The standardized factor loadings indicated variance in that the highest loading was .865 and the lowest was .467. The one factor accounted for 50.26% of the variance with an Eigenvalue of 25.13. Visual inspection of the scree plot indicated a one-factor matrix. The data obtained from the confirmatory factor analysis using one factor supported additional statistical findings using the seven-factor analysis and the correlation coefficient.
### Table 5

*Pearson’s r Correlation Coefficient Matrix*

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*Note.* All correlations are significant at p<.001.
Table 6

Confirmatory Factor Analysis for One Factor

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(table continues)
The initial confirmatory factor analysis was run using seven factors relative to the SAI-2 (Table 4). The confirmatory factor analysis with seven factors yielded a one-factor solution with the first factor producing 50.6% of the variance and the remaining six factors resulting in 70.6% of the cumulative variance. These findings were consistent with Denmark and Weavers’ (2012) confirmatory factor analysis. In order to confirm the researcher’s findings’ consistency with Denmark and Weaver (2012), the researcher collapsed the seven factors into a one-factor confirmatory factor analysis (Table 6). The one-factor confirmatory factor analysis resulted in 50.3% of the cumulative variance highlighting that the factors were loading on a single factor.

**Reliability.** A coefficient alpha was conducted to determine the homogeneity of the data (Ary et al., 2006). A Cronbach’s alpha reliability coefficient of .70 or higher is required for a survey to be considered statistically reliable for research (Fraenkel & Wallen, 2006). Even so, Ary et al (2006) stated that there should be considerations made when interpreting the reliability of an instrument. Considerations should include the length of the test, the heterogeneity of the
group, individual ability, the nature of the variable being measured, techniques used to estimate reliability, and the objectivity of the scoring the survey. For this research project, all factors affecting reliability were considered. Both the composite scale score and the subscale scores exhibited strong statistical reliability (Kline, 2005). All estimated coefficients were greater than .80, and the reliability coefficient for the total scale score was .978 (Table 7).

Descriptive Statistics

Table 7 presents the descriptive statistics for the composite scale and the subscales. The theoretical range for the composite scale and subscale scores is 1 to 5, with 5 suggesting greater observance of the Standards for Professional Learning from the perspective of the NBPTS Exceptional Needs Specialist. The statistical analyses for the current administration of the SAI-2 resulted in a range score between .43 on the Learning Designs subscale to a 5.00 for all other subscales. The statistical outcome for the range is comparable to the statistical outcome reported by Denmark and Weaver (2012), where the range was reported to be lower for the Learning Design subscale (2.02) and the Learning Communities subscale (2.00).

Denmark and Weaver (2012) reported that schools tend to score high on the SAI-2 survey, where they reported a statistical outcome mean for each subscale being between 3.60 and 4.22 (Learning Communities, 3.88; Leadership, 4.22; Resources, 3.68; Data, 3.81; Learning Designs, 3.60; Implementation, 4.08; and Outcomes, 4.14). The statistical outcomes for the mean (see Table 7) reported in the current administration of the SAI-2 is comparable to the Denmark and Weaver (2012) administration in that the low mean reported was for the Learning Design subscale. However, the current administration of the SAI-2 survey resulted in the high mean
score for the Learning Community subscale whereas the Denmark and Weaver (2012) administration resulted in a high mean score for the Leadership subscale.

Table 7

Descriptive Statistics for the Average of the Factors for the SAI-2 Survey

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</table>

Table 8 represents a distribution table for the data set collected for this research project. The data were distributed into categories describing the respondent’s measure of support for their district’s professional development program. A chi-square test of independence was calculated to determine whether there was an equal distribution of teachers in the three categories of low support (<2.5), marginal support (2.5-3.5), or support (>3.5). The null hypothesis implied that the variables are independent in the population. The chi-square analyses for each factor provided statistical significance to reject the null hypothesis. Therefore, the researcher can assume that the results of the survey did not occur by chance alone and that the survey reflected the perception of the NBPTS Exceptional Needs Specialist supporting the professional development programs offered by their individual school systems in regard to their school systems’ ability to adhere to standards representing best practice for staff learning.
Table 8

Distribution Table 1

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<th>n</th>
<th>%</th>
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<td>31</td>
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<td>2</td>
<td>14.74</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Implementation</td>
<td>64</td>
<td>21.33</td>
<td>5</td>
<td>.08</td>
<td>15</td>
<td>.23</td>
<td>44</td>
<td>.69</td>
<td>2</td>
<td>38.47</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Outcomes</td>
<td>62</td>
<td>20.67</td>
<td>11</td>
<td>.18</td>
<td>14</td>
<td>.23</td>
<td>37</td>
<td>.60</td>
<td>2</td>
<td>19.57</td>
<td>&lt;.001</td>
</tr>
</tbody>
</table>

Table 9 represents a distribution table for the data set collected for this research project. The data were distributed into categories describing the respondent’s measure of support for their district’s professional development program. A chi-square test of independence was calculated to determine whether there was an equal distribution of teachers into two categories of low/ marginal support (<3.6) and support (>3.5). The null hypothesis implied that the variables are independent in the population. The chi-square analyses for each factor provided statistical significance to reject the null hypothesis. Therefore, the researcher can assume that the results of the survey did not occur by chance alone.
### Table 9

#### Distribution Table 2

<table>
<thead>
<tr>
<th>Factors</th>
<th>Low/ Marginal Support</th>
<th>High Support</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>e</td>
</tr>
<tr>
<td>Learning Community</td>
<td>60</td>
<td>30</td>
</tr>
<tr>
<td>Leadership</td>
<td>63</td>
<td>31.5</td>
</tr>
<tr>
<td>Resources</td>
<td>63</td>
<td>31.5</td>
</tr>
<tr>
<td>Data</td>
<td>64</td>
<td>32</td>
</tr>
<tr>
<td>Learning Design</td>
<td>62</td>
<td>31</td>
</tr>
<tr>
<td>Implementation</td>
<td>64</td>
<td>32</td>
</tr>
<tr>
<td>Outcomes</td>
<td>62</td>
<td>31</td>
</tr>
</tbody>
</table>

*Note. Low/Marginal Support < 3.5; High Support >= 3.5*

Though the confirmatory factor analysis leads us to a one-factor solution, the seven-factor solution was retained and used for the current research project consistent with Denmark and Weaver (2012). This decision was made because the professional standards present in the SAI-2 were also standards reported to be essential standards upon which the NBPTS process is based. The internal reliability coefficients for each standard were >.80 (Table 6). The inability of the confirmatory factor analysis to load using seven factors is the result of the individual factors high correlation between each other (Table 5).

### Phase II: Qualitative Study

#### Purpose

The purpose of Phase II was to obtain a deeper description of the NBPTS Exceptional Needs Specialist certification process from the perspective of the exceptional needs specialist and how that process informs the professional development experience inherent in the NBPTS Exceptional Needs Specialist process for the special educator.
**Data Collection**

Moustakas (1994) suggested that personal interviews using open-ended questions are the method utilized in phenomenological research to collect data. In following Moustakas’ (1994) method, the primary researcher solicited volunteers from the pool of respondents from the phase one survey to participate in a personal interview (Appendix F) and artifact retrieval (Appendix G). The volunteers were contacted via electronic mail, initially, and later using the telephone, to arrange a suitable time and place to conduct the interview. At the outset, 12 NBPTS Exceptional Needs Specialists volunteered to participate in the phenomenological interview through electronic mail. The primary researcher made contact with the 12 volunteers using electronic mail to obtain contact information. Nine of the 12 volunteers responded to the primary researcher with contact information including phone numbers and addresses.

The primary researcher made telephone contacts with 10 of the 12 volunteers to schedule a face to face meeting with the primary researcher to conduct the interview. The primary researcher left messages on the voice mail of the remaining 2 volunteers and followed up with two additional attempts to make contact. The primary researcher scheduled 7 face to face interviews and 3 telephone interviews. Upon calling the scheduled telephone interviews, the primary researcher was not able to make contact with three of the volunteers. She left messages on the volunteers’ voice mail and completed two follow up calls in an attempt to make contact with the volunteers.

The primary researcher was able to schedule face to face interviews with 6 volunteers. Each of the six volunteers agreed to meet the primary researcher in their hometown at an educational facility or public venue. One of the 6 volunteers who agreed to a face to face meeting had to cancel due to a family emergency, but agreed to a telephone interview at a scheduled date.
and time. The primary researcher was able to complete personal interviews with five volunteers and a telephone interview with one volunteer.

At the time of the interview, the participant was informed of their rights prior to being interviewed and the primary researcher obtained permission to audio tape the interview. The participant was informed that the interview would be transcribed and then presented to the participant for validation of the information obtained through the interview. The interviews were transcribed from the recording device by the primary researcher. After transcribing all of the interviews, an inter-rater reliability researcher with a Doctorate Degree in Education listened to the interviews to assure reliability of the interview transcription. Each interview was then electronically mailed to each interview participant for validation. Each participant validated the transcription of their interview.

_Credibility_

Fraenkel and Wallen (2006) expressed validity as “irrelevant” in a qualitative study as long as the researcher is not trying to explore relationships among variables (p. 441). Ary et al. (2006) proposed the importance of validity in qualitative research but referred to it as the credibility of the research in that academia is concerned with the truthfulness of the findings found in qualitative research. Table 10 presents the elements of qualitative research that enhance the credibility of the findings or truthfulness of the data as proposed by Ary et al. (2006). The primary researcher improved the credibility of the findings for the present qualitative research by conducting five out of the five approaches to credibility in qualitative research.
Table 10

**Approaches to Credibility**

<table>
<thead>
<tr>
<th>Criterion</th>
<th>Strategy Used in Current Research</th>
</tr>
</thead>
<tbody>
<tr>
<td>Structural corroboration</td>
<td>Methods triangulation</td>
</tr>
<tr>
<td></td>
<td>Data triangulation</td>
</tr>
<tr>
<td>Consensus</td>
<td>Peer review</td>
</tr>
<tr>
<td></td>
<td>Peer debriefing</td>
</tr>
<tr>
<td>Interpretive Adequacy</td>
<td>Member checks</td>
</tr>
<tr>
<td></td>
<td>Low inference descriptors</td>
</tr>
<tr>
<td>Theoretical Adequacy</td>
<td>Extended fieldwork</td>
</tr>
<tr>
<td></td>
<td>Theory triangulation</td>
</tr>
<tr>
<td></td>
<td>Pattern matching</td>
</tr>
<tr>
<td>Control of Bias</td>
<td>Epoche/ Reflexivity</td>
</tr>
</tbody>
</table>

**Dependability**

Ary et al. (2006) encouraged qualitative researchers to extract information from their research that is dependable and trustworthy. The primary researcher employed four out of four of the methods recommended by Ary et al. (2006). Table 11 describes the methods employed by the primary researcher to insure that the current qualitative research is dependable and trustworthy.

Table 11

**Approaches to Dependability**

<table>
<thead>
<tr>
<th>Criterion</th>
<th>Strategy Used in Current Research</th>
</tr>
</thead>
<tbody>
<tr>
<td>Documentation</td>
<td>Audit Trail utilizing a research notebook</td>
</tr>
<tr>
<td>Consistent Findings</td>
<td>Replication Logic</td>
</tr>
<tr>
<td></td>
<td>Stepwise Replication</td>
</tr>
<tr>
<td>Coding Agreement</td>
<td>Interrater Reliability Agreement</td>
</tr>
<tr>
<td>Corroboration</td>
<td>Data Triangulation</td>
</tr>
<tr>
<td></td>
<td>Methods Triangulation</td>
</tr>
</tbody>
</table>
Data Analyses

Creswell’s (2007) phenomenological method was utilized in analyzing the participants’ interview transcripts. The primary researcher participated in the interview process in an attempt to set aside her bias related to the research. Each participant’s interview was transcribed and read several times to get an understanding of the transcript as a whole. The transcript was used to develop significant statements concerning each participant’s experience with the NBPTS Exceptional Needs Specialist process, otherwise known as the horizontalization of the transcript data. The significant statements were recorded in a Word document where the primary researcher and the inter-rater reliability researcher who has a Doctorate in Education developed meaning units.

Level one interview analyses. Data analyses of the in-depth interviews began with the audio taping of each individual interview. The interview was transcribed into a Word document (Appendix H). Each transcript was read several times to garner an understanding of the participant’s NBPTS experience as a whole.

Level two interview analyses: Horizontalizing. The interview transcripts were examined for significant statements whereas every statement was given equal worth in the analysis of the data. The statements were highlighted in yellow by the primary researcher and the inter-rater reliability researcher highlighted his statements in blue. The initial percentage of agreement between the primary researcher and inter-rater reliability researcher was <59%. The primary researcher and the inter-rater reliability researcher collaborated to determine the areas of disagreement until they reached >80% agreement on the significant statements.
Level three analyses: Invariant horizons. The horizontalized data were put into a Word document that reflected the significant statements found in each transcript (Appendix I). From six verbatim transcripts, 398 significant statements were extracted by the primary researcher and inter-rater reliability researcher. Table 12 includes the percentages and tallies resulting from the significant statements extracted from the transcripts, arranged according to their formulated meaning for each interview participant.
Table 12

Table of Percentages and Tallies for the Qualitative Interviews

<table>
<thead>
<tr>
<th>Professional Identity</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
<td>n</td>
</tr>
<tr>
<td>Analytical Reflection</td>
<td>0</td>
<td>7</td>
<td>1</td>
<td>4</td>
<td>5</td>
<td>4</td>
<td>22</td>
</tr>
<tr>
<td>Teaching Cycles</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Expert</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Accomplishment</td>
<td>7</td>
<td>2</td>
<td>4</td>
<td>2</td>
<td>2</td>
<td>4</td>
<td>21</td>
</tr>
<tr>
<td>Perspective</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Learning Process</td>
<td>6</td>
<td>2</td>
<td>7</td>
<td>0</td>
<td>8</td>
<td>7</td>
<td>30</td>
</tr>
<tr>
<td>Total (n)</td>
<td>14</td>
<td>.20</td>
<td>13</td>
<td>.29</td>
<td>12</td>
<td>.17</td>
<td>6</td>
</tr>
</tbody>
</table>

NBPTS Portfolio Development

|                                              | A  | B   | C    | D   | E    | F    | Total |
|                                              | n  | %   | n    | %   | n    | %   | n     | %    |
| Certification                               | 1  | 1   | 6    | 2   | 3    | 1   | 14    |
| Process (Writing & Videotaping)             | 0  | 4   | 1    | 2   | 0    | 2   | 9     |
| Portfolio Elements                          | 0  | 0   | 0    | 2   | 0    | 1   | 3     |
| Total (n)                                    | 1  | .01 | 5    | .11 | 7    | .10 | 6     | .11  |

Personal Change

|                                              | A  | B   | C    | D   | E    | F    | Total |
|                                              | n  | %   | n    | %   | n    | %   | n     | %    |
| Relationships                               | 0  | 1   | 0    | 0   | 0    | 1   | 0     | 2    |
| Transformation                              | 0  | 0   | 0    | 0   | 0    | 0   | 4     | 4    |
| Intuitive                                   | 6  | 0   | 0    | 1   | 0    | 0   | 5     | 12   |
| Affirmation                                 | 0  | 1   | 4    | 0   | 0    | 0   | 0     | 5    |
| Self-Awareness                              | 0  | 0   | 0    | 0   | 3    | 0   | 3     | 3    |
| Confidence                                  | 2  | 1   | 8    | 3   | 1    | 1   | 16    |
| Perseverance                                | 0  | 0   | 2    | 0   | 0    | 0   | 2     |
| Financial Growth                            | 1  | 3   | 1    | 2   | 6    | 0   | 13    |
| Esteem                                      | 0  | 1   | 4    | 2   | 2    | 0   | 9     |
| Positive Feelings                           | 0  | 0   | 1    | 2   | 3    | 1   | 7     |
| Negative Feelings                           | 3  | 1   | 4    | 3   | 0    | 3   | 14    |
| Total (n)                                    | 12 | .17 | 8    | .18 | 24   | .34 | 13    | .24  |

Professional Development

|                                              | A  | B   | C    | D   | E    | F    | Total |
|                                              | n  | %   | n    | %   | n    | %   | n     | %    |
| Learning Communities                        | 9  | 5   | 11   | 7   | 21   | 13  | 66    |
| Leadership                                  | 2  | 1   | 3    | 1   | 2    | 1   | 10    |
| Resources                                   | 2  | 2   | 0    | 0   | 3    | 1   | 8     |
| Data                                        | 3  | 1   | 0    | 2   | 4    | 0   | 10    |
| Learning Design                             | 5  | 5   | 2    | 7   | 7    | 6   | 32    |

(table continues)
<table>
<thead>
<tr>
<th>Professional Identity</th>
<th>A</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td>Implementation</td>
<td>13</td>
<td>6</td>
<td>3</td>
<td>8</td>
<td>8</td>
<td>7</td>
<td>45</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Outcome/Assessment</td>
<td>5</td>
<td>0</td>
<td>4</td>
<td>5</td>
<td>9</td>
<td>4</td>
<td>27</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Conceptual Knowledge</td>
<td>2</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>1</td>
<td>5</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Research</td>
<td>1</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>1</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total (n)</td>
<td>42</td>
<td>.60</td>
<td>27</td>
<td>.39</td>
<td>30</td>
<td>.54</td>
<td>55</td>
<td>.60</td>
<td>34</td>
<td>.51</td>
<td>208</td>
<td>.52</td>
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<tr>
<td>Overall Total</td>
<td>69</td>
<td>.17</td>
<td>45</td>
<td>.11</td>
<td>70</td>
<td>.18</td>
<td>55</td>
<td>.14</td>
<td>91</td>
<td>.23</td>
<td>67</td>
<td>.17</td>
</tr>
</tbody>
</table>
Table 12 presented the significant statements as invariant horizons. Each significant statement was treated individually for each interview participant and presented, resulting in 398 significant statements. The significant statements were arranged according to invariant horizons based on the meaning of the statement. The invariant horizons were developed utilizing the nine components of appropriate professional development measured by the SAI-2 as a starting point. The remaining invariant horizons were developed using the transcripts of the qualitative interviews to describe the significant statements. A conceptual map of the data analyses of the qualitative interviews, resulting in emerging themes, is presented in Figure 4.
Figure 4. Conceptual map for qualitative data analyses with emerging themes.
Level four analyses: Emerging themes. Table 12 included the invariant horizons acquired from the qualitative interview transcripts. The invariant horizons resulted in the development of four emerging themes as presented in Figure 4. The four emerging themes were identified by the researchers as professional identity, the NBPTS certification process, personal change, and professional development. The interview participant’s transcripts resulted in 52% of the significant statements being related to professional development, 22% of the statements related to personal change, 19% of the statements related to professional identity, and 7% of the statements being about the NBPTS certification process itself.

The statements related to professional development included references to the NBPTS certification process being “the top professional development challenge available” that reflected “assessment, communication, socialization as being important to me as a special educator.” Participant’s experienced personal growth as stated by one participant in that she “gained confidence in making (community) contacts” and another where she described the process as “equal to a degree but it (NBPTS certification process) is more personal and more meaningful.” The NBPTS certification process “transformed me.” Participants spoke of the development of a professional identity when she stated that she “gained a sense of who I was in the classroom and where I was going as an educator.” Each participant commented on the NBPTS certification process itself and the impact that each activity had on their teaching whereas, “the analytical writing was more than reflection…it was a form of analytical reflection”; “the most beneficial part of the process was videotaping my teaching”; and that the NBPTS certification was “time consuming and overwhelming.”
The NBPTS Qualitative Research Interview Protocol for Special Educators was used to triangulate the data collected during the personal interview (Appendix F). The protocol was administered to each volunteer participant following their personal interview and collected prior to the primary researcher leaving the personal interview. In regard to the telephone interview, the primary researcher e-mailed the protocol to the participant and the participant provided her responses to the primary researcher over the telephone following her interview.

_Credibility._ Orcher (2007) described the validity of an instrument as being “the extent to which an instrument measures what it is designed to measure” or “the extent to which the scores are meaningful” (p. 128). Fraenkel and Wallen (2006) expressed validity as “irrelevant” in a qualitative study as long as the researcher is not trying to explore relationships amongst variables. Ary et al. (2006) proposed the importance of validity in qualitative research but referred to it as the credibility of the research in that academia is concerned with the truthfulness of the findings found in qualitative research.

The NBPTS Qualitative Research Interview Protocol for Special Educators was constructed to be used specifically for special educators who have obtained the NBPTS Exceptional Needs Specialist certification and volunteered to participate in the phenomenological interview for the current research project (Appendix F). The survey was developed using the structure of the NBPTS certification portfolio assessment and criteria considered necessary as part of an appropriate professional development experience for special educators as determined by the Council for Exceptional Children (CEC, 2009). Hence, the instrument has criterion-related validity as the instrument was used to triangulate data collected.
from interview participants in regard to their NBPTS Exceptional Needs Certification experience.

*Reliability/dependability.* A coefficient alpha was conducted to determine the internal consistency of the instrument (Fraenkel & Wallen, 2006). A Cronbach’s Alpha reliability coefficient of .70 or higher is required for a survey to be considered statistically reliable for research (Fraenkel & Wallen, 2006). A coefficient alpha was conducted to determine the homogeneity of the data (Ary et al., 2006). Even so, Ary et al. (2006) stated that there should be considerations made when interpreting the reliability of an instrument. Considerations should include the length of the test, the heterogeneity of the group, individual ability, the nature of the variable being measured, techniques used to estimate reliability, and the objectivity of scoring the survey. For this research project, all factors affecting reliability were considered. All estimated coefficients were greater than .80, and the reliability coefficient for the total scale score was .890. Both the composite scale score and the subscale scores exhibited strong statistical reliability (Kline, 2005).

*Descriptive statistics* Table 13 presents the descriptive statistics for the composite scale and the subscales arranged according to themes defined by the NBPTS Exceptional Needs Specialist Portfolio requirements. The range for the composite scale and subscales is 0 to 4, with 4 suggesting that the composite was *Always* experienced and 0 suggesting that the composite was *Never* experienced. The statistical outcomes for the mean for theme one, Assessment Informs Instruction, resulted in a high mean of 3.83 (Assessment and Instructional Strategies) and a low mean of 1.83 (Foundations). Participants indicated through their interviews that participating in
the NBPTS certification process fostered the opportunity for them “to learn more about informal testing (assessment)” and that participant’s “embraced the concept that assessment drives instruction” (See Figure 4).

The statistical outcomes for the mean for theme two, Fostering Communications Development, resulted in a high mean of 3.67 (Collaboration and Instructional Strategies) and a low mean of 2.33 (Ethics and Professional Practice). Participants reflected on learning communities (collaboration) in their interviews where one participant “received assistance from general education teachers resulting in the development of a relationship of mutual respect.” Theme three, Enhancing Social Development, resulted in a high mean of 4.00 (Collaboration) and a low mean of 2.33 (Ethics and Professional Practice). The high mean score of 4.00 in regard to collaboration for this entry is significant to the participant’s use of collaboration due to 4 out of the 6 participant’s indicated that entry 3 was the entry that they disliked the most stating that “this entry (3) was very constricting” and that “the social development entry was difficult for teachers working with students with disabilities in subject matter classes.” Theme four, Documented Accomplishments, resulted in a high mean of 3.83 (Instructional Strategies) and a low mean of 2.00 (Assessment). The high mean in regard to instructional strategies is indicative of the professional development that most teachers participate in that it is related to “new instructional strategies” to be used rather than the “actual process of the strategies being used within my classroom.”
Table 13

*Descriptive Statistics for the NBPTS Qualitative Research Interview Protocol for Special Educators According to Portfolio Themes*

<table>
<thead>
<tr>
<th>Theme</th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>M</th>
<th>SD</th>
<th>Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Theme 1</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Collaboration</td>
<td>6</td>
<td>2</td>
<td>4</td>
<td>3.50</td>
<td>.837</td>
<td>.700</td>
</tr>
<tr>
<td>Assessment</td>
<td>6</td>
<td>3</td>
<td>4</td>
<td>3.83</td>
<td>.408</td>
<td>.167</td>
</tr>
<tr>
<td>Foundations</td>
<td>6</td>
<td>0</td>
<td>4</td>
<td>1.83</td>
<td>1.472</td>
<td>2.167</td>
</tr>
<tr>
<td>Characteristics of Learners</td>
<td>6</td>
<td>1</td>
<td>4</td>
<td>2.50</td>
<td>1.378</td>
<td>1.900</td>
</tr>
<tr>
<td>Social Interaction</td>
<td>6</td>
<td>0</td>
<td>4</td>
<td>2.17</td>
<td>1.602</td>
<td>2.567</td>
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<tr>
<td>Instructional Strategies</td>
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<td>3</td>
<td>4</td>
<td>3.83</td>
<td>.408</td>
<td>.167</td>
</tr>
<tr>
<td>Individual Differences</td>
<td>5</td>
<td>2</td>
<td>4</td>
<td>3.40</td>
<td>.894</td>
<td>.800</td>
</tr>
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<td>Learning Environment</td>
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<td>2</td>
<td>4</td>
<td>3.17</td>
<td>.753</td>
<td>.567</td>
</tr>
<tr>
<td>Ethics &amp; Professional Practice</td>
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<td>4</td>
<td>2.67</td>
<td>1.366</td>
<td>1.867</td>
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<tr>
<td><strong>Theme 2</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Collaboration</td>
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<td>3</td>
<td>4</td>
<td>3.67</td>
<td>.516</td>
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<td>Assessment</td>
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<td>.967</td>
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<td>4</td>
<td>3.00</td>
<td>1.095</td>
<td>1.200</td>
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</table>
Table 14 presents the descriptive statistics for each individual participant’s response to the NBPTS Qualitative Research Interview Protocol for Special Educators based on frequencies. The overall mean for the participants was 3.038, with a minimum overall mean of 2.429 and a maximum overall mean of 3.914. The variance for the overall item means was .314. The statistical mean for individual participants resulted in a high mean of 3.91 for Participant D and a low mean of 2.42 for Participant F.

Table 14

**Descriptive Statistics for the NBPTS Qualitative Research Interview Protocol for Special Educators according to Participants**

<table>
<thead>
<tr>
<th></th>
<th>Participant A</th>
<th>Participant B</th>
<th>Participant C</th>
<th>Participant D</th>
<th>Participant E</th>
<th>Participant F</th>
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<tbody>
<tr>
<td>N</td>
<td>36</td>
<td>36</td>
<td>36</td>
<td>36</td>
<td>36</td>
<td>36</td>
</tr>
<tr>
<td>Mean</td>
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<td>3.47</td>
<td>3.08</td>
<td>3.91</td>
<td>2.64</td>
<td>2.42</td>
</tr>
<tr>
<td>Std. Error of Mean</td>
<td>.226</td>
<td>.123</td>
<td>.134</td>
<td>.048</td>
<td>.160</td>
<td>.188</td>
</tr>
<tr>
<td>Median</td>
<td>.300</td>
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<td>3.00</td>
<td>4.00</td>
<td>3.00</td>
<td>2.00</td>
</tr>
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<td>Mode</td>
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<td>4</td>
<td>3</td>
<td>4</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Std. Deviation</td>
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<td>.736</td>
<td>.806</td>
<td>.284</td>
<td>.961</td>
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<td>Variance</td>
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<td>.542</td>
<td>.650</td>
<td>.081</td>
<td>.923</td>
<td>1.279</td>
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<td>1</td>
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<td>3</td>
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<td>3</td>
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<td>1</td>
</tr>
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<td>4</td>
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<td>31</td>
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<td>23</td>
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<td>Theme 2</td>
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<td>26</td>
<td>35</td>
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<td>23</td>
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<tr>
<td>Theme 3</td>
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<td>36</td>
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<td>25</td>
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<tr>
<td>Theme 4</td>
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<td>25</td>
<td>36</td>
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<td>125</td>
<td>111</td>
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<td>87</td>
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<td>%</td>
<td>.69</td>
<td>.87</td>
<td>.77</td>
<td>.95</td>
<td>.66</td>
<td>.60</td>
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</table>

Table 15 portrays the frequencies for each individual participant when completing the NBPTS Qualitative Research Interview Protocol for Special Educators (Appendix G). Each
participant had the choice of choosing 0 for Never, 1 for Seldom, 2 for Sometimes, 3 for Frequently, and 4 for Always when responding to the four themes inherent in the NBPTS Exceptional Needs Specialist portfolio assessment (Appendix H) based upon appropriate professional development for special educators as defined by the Council for Exceptional Children (CEC, 2009).

Table 15

Frequency of Responses for Participants on the NBPTS Qualitative Research Interview Protocol for Special Educators According to Participants

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>%</th>
<th>%</th>
<th>%</th>
<th>%</th>
<th>%</th>
<th>%</th>
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<tbody>
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<td>Never</td>
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<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
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<td>Seldom</td>
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<td>0</td>
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<td>27.8</td>
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<td>Sometimes</td>
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<td>13.9</td>
<td>10</td>
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<td>0</td>
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<td>27.8</td>
<td>14</td>
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<tr>
<td>Frequently</td>
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<td>25.0</td>
<td>13</td>
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<td>14</td>
<td>38.9</td>
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<td>25.0</td>
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<tr>
<td>Always</td>
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<td>22</td>
<td>61.1</td>
<td>13</td>
<td>36.1</td>
<td>32</td>
<td>88.9</td>
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</table>

Analyses of the NBPTS Exceptional Needs Specialist Artifacts

Each participant was asked to provide four artifacts based upon the themes found within the NBPTS Exceptional Needs Specialist certification process: (a) Assessment Informs Instruction, (b) Fostering Communications Development, (c) Enhancing Social Development, and (d) Documented Accomplishments: Contributions to Student Learning. Participant A, Participant C, Participant E, and Participant F submitted artifacts for analyses. Participant B expressed concern submitting artifacts due to her administrative position in her school system and not having a classroom of students to work with. Participant D was unable to submit artifacts due to an illness preventing her from being active in her classroom at the present time.
Level one artifact analyses. The primary researcher obtained the artifacts from the participants during a follow-up meeting to share their interview transcripts. The primary researcher audiotaped the discussion with each participant concerning the artifacts that were being submitted. The documents were arranged into groups based on the themes that emerged from the data analyses of the interview including the NBPTS process, professional development, professional identity, and personal change (see Table 16). The primary researcher and the inter-rater reliability researcher determined that the artifacts could represent more than one theme.

Table 16

Artifact Arrangement by Participant and Theme

<table>
<thead>
<tr>
<th>Theme</th>
<th>Participants</th>
<th>A</th>
<th>C</th>
<th>E</th>
<th>F</th>
</tr>
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<tbody>
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<td>NBPTS Process</td>
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<td>X</td>
<td>X</td>
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</tr>
<tr>
<td>Professional Development</td>
<td>Job Site assessment</td>
<td>Morning Time Rubric</td>
<td>Leadership Academy Program</td>
<td>Article Presentation Advanced Degree</td>
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<tr>
<td></td>
<td>Telephone Communication Lesson Plan</td>
<td>Classroom Development Pictures</td>
<td></td>
<td></td>
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<tr>
<td>Professional Identity</td>
<td>X</td>
<td>Program</td>
<td>Leadership Academy Program</td>
<td>Article Presentation Advanced Degree</td>
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</tr>
<tr>
<td>Personal Change</td>
<td>X</td>
<td>Program</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
</tbody>
</table>
**Level two artifact analyses.** Level two artifact analyses began with the transcribing of the interviews for each participant concerning their artifact submission. The transcripts were provided to the inter-rater reliability researcher to read and obtain an understanding of the transcript as a whole. The primary researcher and the inter-rater reliability researcher discussed any discrepancies with their interviews and proceeded to the next level of analyses.

**Level three artifact analyses.** Level three artifact analysis involved reading the transcripts and highlighting the transcript with the intent of examining the data for additional themes. The significant statements were highlighted by the primary researcher and the inter-rater reliability researcher. Each horizontalized transcript was compared to the initial table of themes from the lengthy interview.

**Level four artifact analyses.** Table 17 represents the percentages and tallies based on the significant statements being transformed into invariant horizons leading to thematic development. There were a total of 132 significant statements analyzed and transformed into invariant horizons including professional identity (16%), personal change (17%), and professional development (67%); the thematic element related to the NBPTS process derived from the interview data analyses did not receive mention during the artifact analyses (see Table 17).
Table 17

Table of Percentages and Tallies for Qualitative Artifacts

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<th>F</th>
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<td>0</td>
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<td>.27</td>
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</table>
Structural and Textural Description

The themes that emerged from each participant’s transcript are reflected in the textural and structural descriptions. The textural and structural description of each participant describes the experience each participant shared about the NBPTS Exceptional Needs Specialist certification process and the setting in which the experience took place. Each individual participant’s response to the NBPTS Qualitative Research Interview Protocol for Special Educators is described in the textural and structural description.

Participant A. Participant A is a female NBPTS Exceptional Needs Specialist who has a Master’s degree in the area of Special Education. She has been in the classroom for 20 to 25 years. She is currently teaching Grades 9 through 12 in a transition classroom for students who have intellectual disabilities. She works on transitioning students from the classroom to the workplace.

The interview for Participant A took place in her home. The information garnered from her personal interview resulted in 60% of her comments being comments related to the area of professional development, 20% related to the area of professionalization, 17% related to personal change, and 1% related to the NBPTS certification process (Table 12). The participant’s interview resulted in the majority of her comments expressing a strong desire for her NBPTS experience to impact her students. She stated, “I realize how much I needed to do different in my classroom” and that she “wanted her entries to be useful for the students not just a one-time activity.” She stated that the NBPTS process was “more than a certification process for me.” She indicated that the NBPTS process “was a self-searching process . . . that gave me affirmation that I was doing things right and I was forced to look outside of what I knew to enhance my entries.”
Participant A devoted the least amount of time (1%) commenting on the actual elements of the NBPTS portfolio development.

Participant A’s response to the NBPTS Qualitative Research Interview Protocol for Special Educators resulted in a mean of 2.78 with a standard deviation of 1.355 and a variance of 1.835 (Appendix F). Participant B’s experience in completing the NBPTS portfolio assessment for the Exceptional Needs Specialist as appropriate professional development resulted in a score of 22 for Theme 1 (Assessment Informs Instruction), 25 for Theme 2 (Fostering Communications Development), 25 for Theme 3 (Enhancing Social Development), and 28 for Theme 4 (Documented Accomplishments). She had a sum score of 100 out of 144, with an outcome of 69% (Table 14). Essentially, Participant A attributed the Documented Accomplishment portion of her portfolio assessment as being the most relevant for professional development. Figure 5 shows the frequency of Participant A choosing 0 = Never, 1 = Seldom, 2 = Sometimes, 3 = frequently, and 4 = Always, in completing the survey.

Figure 5. Participant A’s frequency of response.
Participant A contributed artifacts for examination. For Theme 1, Assessment Informs Instruction, she shared behavior checklists and performance evaluations used in her transition classroom for students with Intellectual Disabilities. She stated that the NBPTS portfolio experiences forced her to “realize the importance of community involvement and parent involvement.” Hence, the use of the behavioral and performance checklist allows her to “track the progress of my students and to communicate their progress to their job sites and their parents.” For Theme 2, Fostering Communications Development, she presented a lesson plan developed to instruct students with intellectual disabilities on the use of the telephone. The lesson plan included the use of picture symbols to introduce the process of using the telephone, a checklist for assessing the students’ completion of the lesson, and practice using a phonics phone.

For Theme 3, Enhancing Social Development, Participant A submitted pictures of an apartment created for social skills development as part of her classroom for students with intellectual disabilities. The apartment includes a living area, a dining area, and a kitchen area. Participant A uses the apartment to teach students life skills that will benefit them at home and post-graduation. The apartment was furnished through donations from the community where Participant A stated that “people in the community expressed excitement that I was contacting them to encourage their involvement with the school.” For Theme 4, Documented Accomplishments: Contributions to Student Learning, Participant A submitted a certificate of attendance for the Project WILD Workshop. The Project Wild workshop involved training in using outdoor classrooms in individual schools and how teachers can expand instruction beyond the physical classroom. Participant A expressed that she “enjoyed attending workshops that train her to use a variety of instructional techniques to reach her difficult students.”
Participant A’s artifact submissions reflected the themes of personal change (32%) and professional development (67%). She described her artifacts using positive and negative; she “gained confidence in making community contacts” and she “was scared that she would not be able to secure the furniture for her classroom apartment.” She also involved learning communities, resources, data, learning design, implementation, assessment, and conceptual knowledge when discussing the artifacts that she garnered from her classroom practice. She commented more about the thematic element of implementation (21%) than any other concerning her classroom artifacts.

Participant B. Participant B is a female NBPTS Exceptional Needs Specialist who has a Bachelor’s degree in the area of Special Education, a Master’s degree in Social Work, and an Educational Specialists degree in Administration and Supervision. She has been in the classroom for 29 years. She is currently teaching in a self-contained classroom including Kindergarten through Grade 5 with some students who join her class for only a portion of the day. The students she provided instruction for included students who are medically fragile, learning disabled, other health impaired, and emotionally disturbed.

The interview for Participant B took place in a public venue chosen by the participant. The information obtained from the personal interview resulted in 44% of the comments being related to the process as professional development, 27% related to professionalization, 18% related to personal change, and 11% related to the NBPTS certification process (Table 12). The participant’s interview led to the majority of her comments being about the NBPTS certification process as professional development. She stated that the process “helped me be a better teacher because it made me stop and think.” She further indicated that the process “made me focus on
the questions and the issues at hand . . . stick to the subject.” The process “changed the way I reflect on things. I am more reflective and introspective about my work and my interactions with my students.” She further discussed her teaching by saying that she “was a good teacher prior to the process. I think that we all go through cycles as teachers. We all have years that aren’t so great and others that are wonderful.” Participant B devoted the least amount of time (11%) commenting on the NBPTS portfolio development.

Participant B’s response to the NBPTS Qualitative Research Interview Protocol for Special Educators resulted in a mean of 3.47 with a standard deviation of .736 and a variance of .542 as described in Table 14 (Appendix F). Participant B’s experience in completing the NBPTS portfolio assessment for the Exceptional Needs Specialist as appropriate professional development resulted in a score of 33 for Theme 1 (Assessment Informs Instruction), 32 for Theme 2 (Fostering Communications Development), 30 for Theme 3 (Enhancing Social Development), and 30 for Theme 4 (Documented Accomplishments). She had a sum score of 125 out of 144 with an outcome of 87% (Table 14). Essentially, Participant B attributed the Assessment Informs Instruction portion of her portfolio assessment as being the most relevant for professional development. Figure 6 shows the frequency of Participant B choosing 0 = Never, 1 = Seldom, 2 = Sometimes, 3 = Frequently, and 4 = Always, in completing the survey.


**Participant C.** Participant C is a female NBPTS Exceptional Needs Specialist who has a Bachelor’s degree in Social Work and a Master’s degree in Special Education. She has been in the classroom for 5 to 10 years. She is currently teaching in a self-contained classroom including Kindergarten through Grade 2. The students she provided instruction for included students who are diagnosed with pervasive developmental disabilities, specifically Autism.

The interview for participant C took place in the participant’s home. The information attained from the personal interview resulted in 39% of her comments being related to the process as professional development, 34% related to personal change, 17% related to professionalization, and 10% related to the NBPTS certification process (Table 12). The majority of the participant’s comments focused on the NBPTS process as professional development in
regard to the development of a learning community. She expressed that she “felt camaraderie with her buddy and other teachers during the development of my portfolio.” She further indicated that “the process helped improve relationships with general educators that I had previously had problems with. I think that they had a new respect for me. . . . They saw what I did as being important.” Participant C asserted that the NBPTS certification is personal growth as well as professional growth because you learn professional things that you should be doing in the classroom. If a person took the process and looked at what they did and did nothing to change it, the process would be a certification process but if they look at it and see your mistakes and you use that information to do it better than that is a professional development.

Participant C devoted the least amount of time discussing the NBPTS portfolio development (10%).

Participant C’s response to the NBPTS Qualitative Research Interview Protocol for Special Educators resulted in a mean of 3.08 with a standard deviation of .806 and a variance of .650 as described in Table 14 (Appendix F). Participant C’s experience in completing the NBPTS portfolio assessment for the Exceptional Needs Specialist as appropriate professional development resulted in a score of 31 for Theme 1 (Assessment Informs Instruction), 26 for Theme 2 (Fostering Communications Development), 29 for Theme 3 (Enhancing Social Development), and 25 for Theme 4 (Documented Accomplishments). She had a sum score of 111 out of 144 with an outcome of 77% (Table 14). Essentially, Participant C attributed the Assessment Informs Instruction portion of her portfolio assessment as being the most relevant for professional development. Figure 7 shows the frequency of Participant C choosing 0 = Never, 1 = Seldom, 2 = Sometimes, 3 = Frequently, and 4 = Always, in completing the survey.
Participant C submitted artifacts for review. For Theme 1, Assessment Informs Instruction, Participant C submitted a morning circle time layout and rubric. She informed me that “she uses materials in her classroom instruction such as the rubric to serve more than one function. For instance, the rubric is used as an outline for instruction and assessment.” For Theme 2, Fostering Communications Development, the morning circle rubric was submitted. The morning circle time activity encourages students to interact with each other and the teacher through instructional activities. Participant stated that “the morning circle time activity “serves as communication practice as well as social skills development for my students.”

For Theme 3, Enhancing Social Development, Participant C submitted the after-school program she and her buddy developed for students with Pervasive Developmental Disabilities. The program was developed to provide the students a place to go after school where they could
participate in activities to foster the development of particular skills, including social skills. For Theme 4, Documented Accomplishments: Contributions to Student Learning, she discussed the development of the after-school program: “[It] is a safe place for children with Pervasive Developmental Disabilities to go after school.” She shared the growth of the program and her role in the growth by developing life skill instructions for students that are in high school on the verge of graduation.

Participant C’s artifact submissions reflected the themes of professional identity (17%), personal change (34%) and professional development (49%). She described the artifacts that she submitted as professional identity, focusing on analytical reflection, accomplishment, and a learning process. The artifacts represented personal change through relationships, intuitive, confidence, perseverance, esteem, positive feelings, and negative feelings. The theme of professional development represented the majority of her statements about her artifacts. She reflected on learning communities, leadership, learning design, implementation, assessment, conceptual knowledge, and research.

Participant D. Participant D is a female NBPTS Exceptional Needs Specialist who has a Bachelor’s degree in Special Education and a Master’s degree in Educational Leadership. She has been in education for 20 to 25 years. She obtained her NBPTS certification during her tenure as a classroom teacher instructing students with intellectual disabilities on the high school level. She is currently serving as an administrator in the department of Special Education as a coordinator.

The interview for participant D took place at her place of employment. The information acquired from the personal interview resulted in 54% of her comments being about the process
as professional development, 24% related to personal change, 11% related to professionalization, and 11% related to the NBPTS certification process (Table 7). The personal interview resulted in the majority of the participant’s comments being about the NBPTS certification portfolio process as professional development. Her comments concentrated on the elements of appropriate professional development, highlighting implementation (27%), learning designs (23%), and learning communities (23%). She stated that the NBPTS certification process “encouraged me to reflect on the activities I was using in the classroom and the results that I was getting in through the activities. It gave me validity and confidence as a teacher.” She also reflected on the process with her peer buddies that she went through the NBPTS certification process with in that “I got feedback from others on my entries as well as a group that was helping others by looking at the videos and reading each entry and giving suggestions on how to improve them.” Participant D devoted the least amount of her conversation to the area of professionalization (11%) and personal change (11%).

Participant D’s response to the NBPTS Qualitative Research Interview Protocol for Special Educators resulted in a mean of 3.91 with a standard deviation of .284 and a variance of .081, as described in Table 14 (Appendix F). Participant D’s experience in completing the NBPTS portfolio assessment for the Exceptional Needs Specialist as appropriate professional development resulted in a score of 30 for Theme 1 (Assessment Informs Instruction), 35 for Theme 2 (Fostering Communications Development), 36 for Theme 3 (Enhancing Social Development), and 36 for Theme 4 (Documented Accomplishments). She had a sum score of 137 out of 144 with an outcome of 95% (Table 14). Essentially, Participant D attributed the Enhancing Social Development and Documented Accomplishment portions of her portfolio assessment as being the most relevant for professional development. Figure 8 shows the
frequency of Participant D choosing 0 = *Never*, 1 = *Seldom*, 2 = *Sometimes*, 3 = *Frequently*, and 4 = *Always*, in completing the survey.

![Figure 8. Participant D’s frequency of response.](image)

**Participant E.** Participant E is a female NBPTS Exceptional Needs Specialist who has a Master’s degree in Special Education and is working on her Educational Specialist degree in Instructional Leadership. She has been in the classroom for 20 to 25 years. She is currently teaching in an inclusion classroom Grade 6 through Grade 8. The students she provided instruction for included students who have learning disabilities, other health impairments, and emotional disturbance.

The interview for Participant E took place at a public venue. The information obtained from the personal interview resulted in 60% of her comments being related to the process as
professional development, 19% related to professionalization, 18% related to personal change, and 3% related to the NBPTS portfolio development (Table 12). The majority of the comments collected from Participant E’s interview reflected her NBPTS certification experience as professional development; she stated that “the experience affected my learning community by making me much more involved whereas, I contacted my congressional representatives, conducted more workshops, and I became an expert.” Participant E further described the development of a learning community by describing mentoring where the NBPTS certification process “helped me mentor other teachers and it helped me open up to being mentored by other teachers. It opened me up to other people’s ideas and helped me share my ideas.” Participant E described the NBPTS certification process as “the best professional development experience I ever had. It was extensive and it was in-depth. It was a process rather than a one-time workshop.” Participant E dedicated the least amount of her comments to describing the NBPTS portfolio development (3%).

Participant E’s response to the NBPTS Qualitative Research Interview Protocol for Special Educators resulted in a mean of 2.64 with a standard deviation of .961 and a variance of .923, as described in Table 14 (Appendix F). Participant E’s experience in completing the NBPTS portfolio assessment for the Exceptional Needs Specialist as appropriate professional development resulted in a score of 22 for Theme 1 (Assessment Informs Instruction), 24 for Theme 2 (Fostering Communications Development), 26 for Theme 3 (Enhancing Social Development), and 23 for Theme 4 (Documented Accomplishments). She had a sum score of 95 out of 144 with an outcome of 66% (Table 14). Essentially, Participant E attributed the Enhancing Social Development portions of her portfolio assessment as being the most relevant
for professional development. Figure 9 shows the frequency of Participant E choosing 0 = *Never*, 1 = *Seldom*, 2 = *Sometimes*, 3 = *Frequently*, and 4 = *Always*, in completing the survey.

![Figure 9. Participant E’s frequency of response.](image)

Participant E submitted an artifact for review. Participant E submitted the development of a Leadership Academy for her employing school system as her artifacts for Theme 1, Theme 2, and Theme 3. The Leadership Academy is a 1-week training seminar for students who are struggling or who do not excel in school. The Leadership Academy was developed to encourage “personal growth and needs in our students.” For Theme 1, Assessment Informs Instruction, the leadership academy required certain stipulations to participate. Participation in the academy “required that students need improvement on standardized test scores, require participation in special education, and/or struggles in reading and math.” She stated that “students would also be assessed according to their behavior and discipline needs.” For Theme 2, Fostering
Communications Development, the leadership academy provided participating students with sessions to enhance “public speaking and technology use” for each individual participant.

For Theme 3, Enhancing Social Development, the Leadership Academy utilized character development programs to enhance the social skill development of the participating students. The academy incorporated “community service projects to be completed by the participants as a team.” For Theme 4, Documented Accomplishment: Contributions to Student Learning, Participant E did not submit an artifact. However, she described the continuation of her education by attending the local university and pursuing her Educational Specialist Degree in Educational Administration. She stated that she “hoped to complete her degree and obtain and administration position at a middle or high school where she could implement the facets of the academy for all children at risk.”

Participant E’s artifact submissions reflected the themes of professional identity (21%) and professional development (79%). Her professional identity was expressed through analytical reflection, expert, accomplishment, and a learning process. Participant E’s artifacts represented professional development through learning communities, learning design, leadership, resources, data, implementation, assessment, and research. Her comments about her artifacts focused on the use of learning communities, which represented 37% of her comments.

Participant F. Participant F is a female NBPTS Exceptional Needs Specialist who has a Master’s degree in Special Education and her Educational Doctorate in Curriculum and Instruction. She has been in the classroom for 20 to 25 years. She is currently teaching in a special school for the deaf and blind. She teaches Science for Grade 4 through Grade 8.
The interview for participant F took place over the telephone. The information attained from the telephone interview resulted in 51% of her comments being related to professional development, 22% related to professionalization, 21% related to personal change, and 3% related to NBPTS portfolio development (Table 12). The majority of the comments resulting from Participant F’s interview reflected the process as professional development, with the area of learning communities gaining the most attention (38%). Participant F reflected on her NBPTS experience as making her “more capable and willing to mentor other teachers.” The process made her “more confident in what I had to offer and willing to build relationships with new teachers as well as seasoned teachers who need support.” She stated that she “sees her fellow teachers as comrades where they spend time in reflection on teaching as well as their environment that they are teaching in.” She described her completion of the portfolio with a peer where “I was supported by my fellow teacher as well as several websites to offer help and suggestions for completing the portfolio.” Participant F described the development of a learning community with a local college where “a professor read the portfolio entries for the NBPTS candidates and offered suggestions for improvement.” She reflected on the NBPTS certification process as the development of “camaraderie and unity that I share with fellow (NBPTS) certified teachers” in that “we have a bond that can be only understood by those that have experienced the process.” She further elaborated on the development of a learning community by describing NBPTS certified teachers as being in a “league of teachers that have been transformed where they share conceptual thinking where you have pushed yourself to obtain something and engaged in a process that has transformed your teaching.” Participant F devoted the least amount of her comments to the NBPTS portfolio development (3%).
Participant F’s response to the NBPTS Qualitative Research Interview Protocol for Special Educators resulted in a mean of 2.42 with a standard deviation of 1.131 and a variance of 1.279 as described in Table 14 (Appendix F). Participant F’s experience in completing the NBPTS portfolio assessment for the Exceptional Needs Specialist as appropriate professional development resulted in a score of 23 for Theme 1 (Assessment Informs Instruction), 23 for Theme 2 (Fostering Communications Development), 25 for Theme 3 (Enhancing Social Development), and 16 for Theme 4 (Documented Accomplishments). She had a sum score of 87 out of 144 with an outcome of 60% (Table 14). Essentially, Participant F attributed the Enhancing Social Development portions of her portfolio assessment as being the most relevant for professional development. Figure 10 shows the frequency of Participant F choosing 0 = Never, 1 = Seldom, 2 = Sometimes, 3 = Frequently, and 4 = Always, in completing the survey.

Figure 10. Participant F’s frequency of response.
Participant F submitted artifacts for review. For Themes 1 and 2, Assessment Informs Instruction and Fostering Communications Development, respectively, Participant F submitted a published article written by Participant F titled “Atoms, Elements, Molecules, and Matter: An Investigation In to the Congenitally Blind Adolescents’ Conceptual Framework on the Nature of Matter” representing research and assessment of students’ with Congenital Blindness ability to understand matter (Smothers & Goldston, 2009). The research presented in the article involved an element of assessing the various ways in which students with Congenital Blindness communicate their knowledge of scientific matter to teachers.

For theme three, Enhancing Social Development, Participant F submitted a PowerPoint presentation presented by her at a national convention on the development of sensory efficiency in students with visual impairments thereby enhancing their ability to socially interact with their peers in the classroom and with their teachers. For Theme 4, Documented Accomplishments: Contributions to Student Learning, Participant F submitted her diploma earned at a top university as a Doctor of Education.

Participant F’s artifact submissions reflected the themes of professional identity (28%), and professional development (73%). Her professional identity was expressed through analytical reflection, accomplishment, and a learning process. Participant E’s artifacts represented professional development through learning communities, learning design, data, implementation, assessment, conceptual knowledge, and research. Her comments about her artifacts focused on the use of learning communities, which represented 24% of her comments.
Composite Structure

The composite structure of phenomenological research includes the textural description and the structural description for each participant as described by Moustakas (1994) and Creswell (2007). The culmination of these descriptions results in what Moustakas (1994) described as the essence of phenomenological research. The essence of the present phenomenological research begins with the decision to participate in the NBPTS Exceptional Needs Specialist certification process.

Each participant described her decision to participate in the NBPTS Exceptional Needs Specialist certification process as a decision that was made as a classroom teacher in an effort to promote themselves as specialists within their educational environment. Participants expressed that their desire to obtain certification was stimulated by financial incentives that were provided by the State of Alabama for obtaining the certification resulting in pay increases as well as monetary compensation for classroom use. The financial incentives did not outweigh the desire to excel as a professional in that most participants stated that they would have participated in the certification process apart from the financial incentives.

Each participate described a multitude of feelings upon receiving the box containing the NBPTS Exceptional Needs Specialist certification requirements and directions. Participants described receiving the box as “exciting,” “scary,” “overwhelming,” and “anxious” while also sharing their eagerness to get started on the completion of the portfolio process. Each participant expressed particular portfolio entries as being more favorable than others. Yet, each participant found value in entry one, Assessment Informs Instruction. All participants described assessments as an essential characteristic to their practice as professionals as well as to special education.
Although each participant valued different portfolio entries when reflecting on entries two and three, they each described videotaping themselves providing instruction for their students as a “learning experience” or a “learning process.” Each participant depicted the act of reflection as beneficial to the portfolio experience. Each participant stated that they would not change any of the entries of the portfolio process or the requirements for each entry. Even so, entry number four, Documented Accomplishments, each described as an activity that each participant was required to complete in order to recertify their teaching certificate.

The NBPTS Exceptional Needs Specialist certification process was described by each participant as professional development whereas the portfolio process was essential to the professional development experience. Participants reflected on the portfolio process in regard to professional development as the “best professional development experience,” “used the information to do it (teach) better,” “professional development in the highest regard,” “total professional development . . . it was a process rather than a workshop,” and “significant professional development . . . a gold standard for our profession.” The comments made by each participant resulted in emerging themes of professional development including learning communities, resources, learning design, outcomes, conceptual knowledge, leadership, data, implementation, and research (See Figure 4). Even so, participants expressed that the NBPTS Exceptional Needs Specialist certification process was much more than professional development. As a result of the portfolio process being professional development for each participant, the participants described the emergence of a professional identity as well as personal changes (see Figure 4).

The emergence of a professional identity described by each participant extended beyond the practice of appropriate professional development. Participants shared growth as a
professional in regard to reflecting analytically, becoming an expert, experiencing being accomplished, gaining professional perspective, and participating in learning processes (see Figure 4). Professional identity recognized each participant’s emotional response to the experience as a professional. Each participant portrayed the experience as professional identity by comments such as “had a feeling of accomplishment as a teacher,” “more introspective about my work,” He (my principal) expects more from NBPTS teachers,” “more persistent through reflection,” “use professional language and express myself in a professional manner,” and “a sense of who I was as a professional not just a teacher.” The advent of a professional identity for each participant was evident and compelling as was the personal changes experienced by each participant through their completion of the NBPTS Exceptional Needs Specialist portfolio.

The personal changes described by each participant were changes that were not expected during typical appropriate professional development. The personal changes included changes in regard to personal relationships, self-esteem, self-confidence, finances, feelings, and personal practices such as intuition, perseverance, and personal transformation. Each participant alluded to the personal changes experienced in completion of the portfolio process as well as the certification process by means of comments such as “it gave me confidence,” “it helped me personally . . . I do not procrastinate,” “(I) felt camaraderie with other teachers,” “gave me validity and confidence,” and “it transformed me.” The elements of personal change were experienced outside each participant’s professional environment.

The “essence” of this phenomenological study as described by Moustakas (1994) and Creswell (2007) involves the experience of NBPTS Exceptional Needs Specialists in completing the portfolio assessment as part of the NBPTS certification process. The participants illustrated the NBPTS Exceptional Needs Specialist certification process as a dynamic form of professional
development resulting in the emergence of a professional identity within their classroom as well as their educational environment with colleagues and superiors. Each participant also conveyed personal changes that transpired as a result of their participation in the NBPTS Exceptional Needs Specialist portfolio submission leading to NBPTS certification as a NBPTS Exceptional Needs Specialist.

Summary

The findings of the data analysis of the quantitative and qualitative methods used in this mixed-method, phenomenological study are reported in this chapter. The findings for each phase of this mixed-method study was presented using the implementation structure of this study whereas the quantitative data analyses and findings were presented and discussed followed by the qualitative data analyses and findings. Quantitative data analyses indicated that the SAI-2 loads as a one-factor solution survey rather than a seven-factor solution as defined by theoretical research on appropriate professional development. Even so, the data collected from the SAI-2 survey presented a cumulative low mean score of 3.67 and a cumulative high mean score of 4.03, indicating that the NBPTS Exceptional Needs Specialists in the State of Alabama supported the professional development programs offered by their individual school systems in regard to their school systems’ ability to adhere to standards representing best practice for staff learning.

Qualitative data analyses for this research project adhered to a phenomenological research design as depicted by Moustakas (1994) and Creswell (2007), targeting the lived experience of NBPTS Exceptional Needs Specialist’s participating in and completing the NBPTS Portfolio Assessment. The phenomenological research design involved participant interviews, completion of the NBPTS Qualitative Research Interview Protocol, and artifact
collection. Each participant interview was collected, transcribed, coded, categorized, and emerging themes were identified (Creswell, 2007; Moustakas, 1994). Each participant’s NBPTS Qualitative Research Interview Protocol was collected and analyzed to triangulate the data collected through the interviews. Participant artifacts were collected, transcribed, coded, categorized, and emerging themes were identified and compared to emerging themes from interview transcripts. The coding, categorizing, and identification of emerging themes was conducted by the primary researcher, inter-rater reliability researcher, and validated through member check.

Qualitative data analyses for participants resulted in emerging themes and supporting themes defining the essence of the NBPTS Exceptional Needs Specialists portfolio experience, including a description of the NBPTS Exceptional Needs Specialist certification process and the emergence of elements of professional development also presented by theoretical research and measured by the SAI-2. The emergence of themes related to professional development resulted in the emergence of the development of a professional identity for each participant as well as personal changes for each participant. The essence of the NBPTS Exceptional Needs Specialist certification process in regard to the portfolio submission proved to be a significant professional development experience resulting in professional and personal change for the participant.

Chapter 4 presented the data collected for the quantitative phase as well as the qualitative phase of this mixed-method, phenomenological study. In Chapter 5, the primary researcher will provide a synopsis of the present study including the research questions guiding the present study, implications of the study, and relevant outcomes of the current study. Future research in regard to the NBPTS Exceptional Needs Specialist will be discussed.
CHAPTER 5

DISCUSSION

Overview

Chapter 5 begins with a synopsis of the purpose of the study and a brief summary of the study. The research questions are reiterated for discussion purposes. Conclusions are derived from the findings presented in Chapter 4. The conclusions from this study that are associated with conclusions from previous research presented in the literature review for this study will be presented as appropriate. The essence of the National Board for Professional Teaching Standards (NBPTS) Exceptional Needs Specialist certification experience is described in detail. The implications for this study are discussed as well as future research.

Synopsis

Educational reform has pivoted around teachers and their responsibility for student achievement. Hunt (1993) indicated that the “single most important action the nation can take to improve the learning of children is to strengthen the ability, knowledge, confidence, and professionalism of its teachers” (p. 2). The National Board for Professional Teaching Standards (NBPTS) were developed as a call to action to improve the achievement of all students through the transformation and unity of the teaching profession (Hunt, 1993). The NBPTS included special educators in the certification process with the development of the NBPTS Exceptional Needs Specialist certificate.
Purpose of Study

The purpose of this study was to determine the extent to which current practice of professional development within local education districts is supportive of professional development that adheres to research-based professional development standards and to determine the perception of the NBPTS Exceptional Needs Specialists in regard to the NBPTS process representing quality professional development for special educators by way of a multi-method, phenomenological research design. The research study was comprised of the administration of the Standards Assessment Inventory 2 (SAI-2) to NBPTS Exceptional Needs Specialists in the State of Alabama, solicitation of volunteer participants to take part in a personal interview, and artifact compilation, participant interviews, and artifact retrieval. The SAI-2 data were collected and analyzed. The participants were interviewed and data were transcribed, coded, categorized, and emerging themes were identified. The NBPTS Qualitative Research Interview Protocol for Special Educators was administered and analyzed. Participant artifacts were collected, described, transcribed, coded, categorized, and compared to existing emergent themes.

Research Questions

This study addressed the following research questions and null hypothesis:

1. What are the perceptions of NBPTS Exceptional Needs Specialists certificate recipients of their local schools’ professional development programs ability to adhere to standards representing best practice for professional learning?

2. What are the perceptions of NBPTS Exceptional Needs Specialists of their professional development practices prior to completing the NBPTS process?
3. What are the perceptions of NBPTS Exceptional Needs Specialists of their professional development practices since completing the NBPTS process?

4. What are the ways in which the Exceptional Needs Specialists instructional identity changed through the NBPTS certification process and how might that change inform the local education professional development program?

5. What are the perceptions of Exceptional Needs Specialists effectiveness as demonstrated by their response to their involvement in the performance-based portfolio assessment for the NBPTS certification process?

Discussion

A mixed-methods research study was conducted using a quantitative research methodology in addition to a qualitative research design based on phenomenological study to obtain the findings reported in Chapter 4. A discussion of the findings from Chapter 4 will be presented in relation to the applicable research question in order to assure that each research question is addressed in the discussion. Previous research will be presented to support the discussion when it is appropriate and relevant to the dialogue.

Research Question 1

The SAI-2 survey was administered to NBPTS Exceptional Needs Specialists in Alabama in order to address the research question presented in Chapter 1: What are the perceptions of NBPTS Exceptional Needs Specialists certificate recipients of their local schools professional development programs ability to adhere to standards representing best practice for professional learning? The analyses of the survey data resulted in a myriad of findings reflecting on the
perceptions of NBPTS Exceptional Needs Specialists. The analyses indicated that the SAI-2 supported a one-factor solution, general professional learning, rather than a seven-factor solution based on research defining elements of appropriate professional development. The NBPTS Exceptional Needs Specialist from Alabama responded consistently with the national sample of teachers when completing the SAI-2. The presence of a one-factor solution as opposed to a seven-factor solution proposed by the research defining elements of appropriate professional development could be instrumental fault or conceptual fault.

Instrumental fault is the result of the SAI-2 survey instrument not differentiating between the seven factors within the instrument. The instrument portrays a high correlation between the elements of appropriate professional development imbedded within the SAI-2 survey instrument. Then again, the inability of the instrument to load on seven factors could be due to the conceptual fault of teachers, including NBPTS Exceptional Needs Specialists from Alabama, to distinguish between the seven different components of appropriate professional development due to their conception of a larger supportive environment in which professional development takes place. Educators are blind to the individual components of professional development as indicated by the findings from the SAI-2. The findings from the administration of the SAI-2 for the present study were consistent with previous administrations of the SAI-2 (Denmark & Weaver, 2012).

Nevertheless, the NBPTS Exceptional Needs Specialists from Alabama indicated via the SAI-2 that they supported the professional development programs offered by their individual school systems. The inability for the NBPTS Exceptional Needs Specialist to recognize seven factors as opposed to one factor in their response to the SAI-2 indicates that they have a framework of instruction where they trust that they are supported by their local systems or they do not trust that they are supported by their school systems. When responding to instruments
such as the SAI-2, they are reflecting on their individual practice where in order to support the seven factors presented by research necessary to appropriate professional development respondents need to situate their practice within a larger organizational framework of instruction.

*Research Question 2*

The phenomenological interview and artifact submission was conducted to address the research question presented in Chapter 1: What are the perceptions of NBPTS Exceptional Needs Specialists of their professional development practices prior to completing the NBPTS process? The interview participants for this research study indicated that their professional development experience prior to the NBPTS Exceptional Needs Specialist certification experience was lacking in that they participated in 1-day workshops that did not go beyond the one day. The participants indicated that the Master’s degree programs in which they had participated were as rigorous as the NBPTS Exceptional Needs Specialist certification process. However, the videotaping and the reflection on practice had more impact on their classroom practice than the courses they took and the assignments that they submitted to meet criteria for a Master’s degree in Special Education.

Participants’ comments in regard to their purpose for participating in the NBPTS certification process, such as “the need for a sense of accomplishment” and that “I thought that it would make me a better teacher and give me some validity and confidence,” allude to their participation in the NBPTS certification process as a need for more. Thus, the participants hint at the possibility that they were missing something in the professional development that they had participated in prior to the NBPTS certification process. When discussing their experience regarding the NBPTS certification process, the interview participants discussed the “qualifications that the certificate carries and what it looks like on a resume” as well as the belief
that “it was an honor to participate in the process.” Again, the participants speak as though the
NBPTS certification process for special educators carries qualifications beyond the typical
professional development experience and that there is an effective experience that a typical
professional development experience does not provide.

**Research Question 3**

The phenomenological interview and artifact submission was conducted to address the
research question presented in Chapter 1: What are the perceptions of NBPTS Exceptional Needs
Specialists of their professional development practices since completing the NBPTS process?
The interview participants for this research study specified that the NBPTS Exceptional Needs
Specialists certification process was the “gold” standard of professional development in that they
developed a professional identity and experienced personal changes through the certification
experience. Although each participant could not recall a more enriching experience since
completing the portfolio process, four out of the six participants have since pursued advanced
degrees in special education or educational leadership. Four out of the six aspire to become
administrators in their local districts or to participate on the college level as an instructor of
future teachers.

The deduction of this study that the NBPTS portfolio assessment process contributed to
teacher learning in pertinent areas for appropriate professional development specifically learning
communities, resources, learning design, outcome, conceptual knowledge, leadership, data,
implementation, and research was also determined by Tracz et al. (1995). Tracz et al. (1995)
reported improvement in the areas of classroom environment, instruction, assessment, and
collegiality as a result of participating in the NBPTS portfolio assessment process. Interview
participants implied that the NBPTS Exceptional Needs Specialist certification process was a poignant experience that fostered growth both professionally and personally when one participant stated that she “had some frustration and anxiety which made me more appreciative of what good teachers go through to reach more difficult students.” Interview participants further described the ongoing effects of the NBPTS certification process as “professional development that you have to get into and use because it (NBPTS certification) becomes part of who you are.”

Research Question 4

The phenomenological interview and artifact submission was conducted to address the research question presented in Chapter 1: What are the ways in which the Exceptional Needs Specialists instructional identity changed through the NBPTS certification process and how might that change inform the local education professional development program? The term instruction identity was defined in Chapter 1 as the identity that a teacher develops over time through education, professional development, and practice. This identity includes the knowledge, skills, talent, and dedication that a teacher embodies as part of their educational practice (NBPTS, 2010; Stillwaggon, 2008). The NBPTS Exceptional Needs Specialists certification process for each participant was a union of education, professional development, and practice fused by the knowledge, skills, talent, and dedication presented within their educational practice. Each participant’s instructional identity changed during the NBPTS Exceptional Needs Specialist certification process through the development of a professional identity and the personal changes savored by each participant whereas participants shared that the NBPTS certification process provided them with “affirmation about what I was doing right and forced me to look outside of what I knew to enhance my teaching.”
Each participant shared the changes, including enhanced self-esteem, improved self-confidence, and a sense of awareness about one’s self as stated by participants regarding the NBPTS certification process “as a self-searching process.” The participants illustrated feelings of accomplishment and pride in one’s self as teachers but also as individuals outside of their profession in that participants “had an ego trip going on” and “matured as an individual.” They expressed changes in the relationships they had with colleagues and a change in perspective related to their classroom practice where “other teachers had a new respect for me after I completed the process.”

The NBPTS Exceptional Needs Specialist certification process empowered each participant to contribute in the educational community rather than isolate themselves to their classroom. Participants moved beyond their classroom to participate in learning communities, develop educational alliances, and to mentor their fellow teachers, young and old where “the (NBPTS certification) process made me more capable and willing to mentor other teachers.” Participants depicted a change in their local administrators’ willingness to use their talents and skills to lead initiatives within the local school district and community. Participants described a willingness to participate in state and national conventions as experts in their area of proficiency due to “the (NBPTS certification) process making me realize that I had more to offer” and “I participated in presenting more workshops for other teacher whereas, I became an expert.” The propulsion of NBPTS Exceptional Needs Specialists into positions of expertise and leadership is typical of NBPTS certificate recipients as conveyed by Cannata et al. (2010), where they found that NBPTS teachers engage in more leadership activities at the local and district levels than their counterparts.
Research Question 5

The phenomenological interview and artifact submission was conducted to address the research question presented in Chapter 1: What are the perceptions of Exceptional Needs Specialists effectiveness as demonstrated by their response to their involvement in the performance-based portfolio assessment for the NBPTS certification process? Each participant described the NBPTS Exceptional Needs Specialist certification process as an experience that enhanced their practice as teachers whereas they were “transformed” from teachers to professionals. Participants portrayed the development of the NBPTS portfolio as a process that started as a personal endeavor to being about the practice in each participant’s classroom with the goal of enhancing student achievement through reflection, research, assessment, and practice, which was reflective of the themes presented by Tracz et al. (2005) as “reflection, assessment, and professionalism (p. 47) for NBPTS certificate holders.

The practice of enhancing student achievement was maintained by each participant after the NBPTS portfolio was completed as evidenced by activities reported during the interview and archives submitted such as lesson plans, behavior charts, professional articles written, programs developed, and degrees obtained. Each participant exhibited a spirit of determination to make students successful within their educational environment and the student’s outside community. The determination exhibited by each participant was expressed through the comments made in their interviews but also in their persona whereas they became better teachers because the process made them “stop and think about my teaching” and “I became more persistent through my teaching.” Student achievement is a hallmark of NBPTS certified teachers as determined by research that shows that NBPTS certification is an effective signal of teacher quality (Cavaluzzo, 2004; Goldhaber & Anthony, 2004; Haweley & Valli, 1999).
Summary

The findings from Chapter 4 were discussed relative to the applicable research question that the findings addressed in order to insure that each research question was addressed. NBPTS Exceptional Needs Specialists in Alabama completed the SAI-2 to determine their perception of their local schools’ adherence to indicators of appropriate professional development. NBPTS Exceptional Needs Specialists in Alabama expressed the feeling of support from their local school districts in regard to the system’s ability to adhere to appropriate indicators of professional development.

Concern for the SAI-2 instrument supporting a one-factor solution (General Professional Learning) as opposed to a seven-factor solution was presented and discussed. The appropriateness of the SAI-2 as an instrument to measure seven factors was discussed as well as the possibility of faulty conceptualization on the part of the NBPTS Exceptional Needs Specialist from Alabama causing the high correlation between the remaining six factors. The use of seven indicators of appropriate professional development is supported by professional development research for special educators (CEC, 2009; Learning Forward, 2011; NBPTS, 2007).

The emergence of a conceptual framework in regard to the NBPTS Exceptional Needs Specialist certification portfolio assessment experience was the result of the participant interviews, the completion of the NBPTS Qualitative Research Interview Protocol for Special Educators, and participant archives. The conceptual framework attended to the major themes of NBPTS certification process, professional development, professional identity, and personal change sequentially and dependently. Each major theme resulted in secondary themes that were defining to the major theme (Buchanan, 2014, Chapter 4, p.117, and see Figure 4). The participant interviews provided dialogue indicating that each participant inferred that their
professional development experience prior to the NBPTS Exceptional Needs Specialist portfolio experience was lacking. However, four out of six of the participants were pursuing or had obtained advance degrees.

Participant interviews’ emerging themes prompted the development of a professional identity and personal changes resulting from the professional development experience. The development of a professional identity impacted the participant’s instructional identity in that participants were transformed as educators, resulting in personal changes related to self-confidence, self-esteem, and self-awareness. The professional identity of each participant was defined by reflection, assessment, research, and practice resulting in a change in perspective and a sense of professional accomplishment. The NBPTS Exceptional Needs Specialist portfolio assessment experience, as reported by each participant, produces quality teachers resulting in improved instructional strategies with the goal of improving student achievement.

Limitations

There were limitations to this study. The participants for this study were limited to the special education teachers who had obtained the NBPTS Exceptional Needs Specialists certificate in the State of Alabama. Therefore, a key limitation related to the participants possessing some degree of bias in relation to the NBPTS certification process because of their status as NBPTS certificate recipients. Consequently, it is a possibility that participant bias influenced the outcome of this study.

The quantitative phase of the study involved administering the SAI-2 using the internet. Survey research using the internet involves limitations that influence the results of the study. The primary limitation for the quantitative phase of this study was the use of internet survey research
resulting in non-response bias. According to Manfreda et al. (2008), internet survey research resulted in an 11% lower response rate when compared to other modes of survey conducted. Another limitation for the quantitative phase of this study included the ability of the researcher to obtain accurate contact information for all of the NBPTS Exceptional Needs Specialists registered in the State of Alabama.

The qualitative phase of this study involved special education teachers who had obtained NBPTS certificates as Exceptional Needs Specialist in the State of Alabama. The participants were chosen through the process of purposeful selection where the participants were invited to participate in a phenomenological interview and artifact review. Kilbourn (2006) indicated that qualitative research is not generalizable whereas the results of the study are limited to the population of study and not to NBPTS Exceptional Needs Specialists from other states.

Implications for Policy and Practice

The benefits of the NBPTS Exceptional Needs Specialist certification process from the perspective of the participant affect the participant as a person, the individual as an educator, students, administrators, local school systems, and academia. The implications for policy and practice derived from the conclusions of this study extend from the individual teacher to the field of research and development of assessments regarding professional development. The implications for the field of special education, individual professional development, and instrument development are discussed.

The findings are important to the field of special education in that it provides special educators and policymakers with a view of human experience as it relates to the NBPTS Exceptional Needs Specialists portfolio assessment experience as relevant professional
development. As the demands on special educators to meet the needs of their students while providing them with an education comparable to that of their nondisabled peers intensify, improving teacher quality through appropriate professional development is at the forefront of educational agendas (Brownell et al., 2010). The use of professional development appears to be the solution to the gap between teacher quality and student achievement. However, local school districts struggle to provide appropriate professional development relevant to the special educator’s classroom practices (Berry, Petrin, Gravelle, & Farmer (2012). The results of this study indicated that the NBPTS Exceptional Needs Specialist portfolio assessment experience is indeed appropriate professional development relevant to the varied needs of the special educators due to the individualized portfolio assessment that involves interplay between assessment, reflection, research, and practice (CEC, 2009; NBPTS, 2011; Tracz et al., 2005).

Varela (2012) asserted that the current professional development opportunities offered to classroom teachers lacks individualization, is detached from classroom practices, and is not sustainable beyond the professional development exercise. Current results from each participant’s NBPTS Exceptional Needs Specialist portfolio experience indicated that the NBPTS Exceptional Needs Specialist portfolio assessment avoids typical threats to the experience as professional development. The NBPTS portfolio assessment is individualized for the participant’s classroom. The use of the NBPTS standards (2009) to develop the portfolio requires the participant to immerse themselves into the NBPTS standards and develop classroom practices involving the NBPTS standards. The proficiency required to obtain certification as a NBPTS Exceptional Needs Specialist is sustained over time due to the participant’s recertification requirements every 10 years.
The results depicted via the participant interviews are positive in that each participant encountered the development of a professional identity and experienced personal change as a result of participating in the NBPTS Exceptional Needs portfolio assessment experience. According to each participant, the experience is a rewarding process where the participant experienced a sense of pride and accomplishment leading to personal changes for each participant’s self-confidence and self-esteem. The process itself motivated most of the participants to participate in professional advancement activities where the participant can make more of an impact on academia in regard to future teachers and novice teachers.

Also worth noting are the results of the SAI-2 survey instrument whereas the survey instrument alludes to a single component of professional development rather than seven components defining appropriate professional development. This finding forces professionals to evaluate the rationale for such a disparity. Either the SAI-2 survey instrument requires restructuring to represent seven components of appropriate professional development or academia needs to evaluate the conceptual understanding that teachers have in regard to the components of appropriate professional development and their practice within contemporary educational practices.

Future Research

Conclusions from these findings indicate that the NBPTS Exceptional Needs Specialist portfolio experience is an appropriate form of professional development for special educators. The findings also accentuated residual benefits to the certification process related to the development of a professional identity and personal changes for each participant. As compelling
as these results are the conclusions lead us to a progression of questions that need to be answered.

Teachers participate in professional development with the intention of improving teacher quality and student achievement. There are studies that imply a relationship amid NBPTS certified teachers and student achievement (Bond et al., 2000; Goldhaber & Anthony, 2004). However, the studies have focused on typical students. Future research needs to involve determining if there is a relationship between the NBPTS Exceptional Needs Specialist and the achievement of their students with disabilities comparable to special education teachers who have not participated in the NBPTS certification process.

Research indicates that NBPTS certified teachers engage in more leadership activities at the local and district level than non-NBPTS teachers (Cannata et al., 2010; Lustick & Sykes, 2006). This research was conducted on teachers who work with the typical student. Future research is needed to determine the leadership roles that NBPTS Exceptional Needs Specialists participate in at the local and district level.

The NBPTS certification process is a constructivist form of professional development based on an agreed upon set of standards necessary to classroom practices and the development of the portfolio as an assessment of teacher quality. Future research is necessary to develop a professional development program for special education teachers based on the inquiry model and consensus model of professional development. This model would include rudiments of the NBPTS certification experience exposing the elements of reflection, assessment, and research and immersed into the classroom practices of the individual special educator.
Conclusion

The current study was performed in order to disclose to the educational community the merits of the NBPTS Exceptional Needs Specialist certification process as professional development for special educators. The use of the SAI-2 as an instrument to gain the perception of the NBPTS Exceptional Needs Specialist in Alabama demonstrated the complexities involved in evaluating professional development programs on the local and district level as substantiated by the confirmatory factor analysis resulting in a one factor solution (General Professional Learning) rather than a seven factor solution proposed by research on professional development. Even so, the research indicated that NBPTS Exceptional Needs Specialists communicated their experience within a framework of professional development rather than specific factors of professional development representing professional growth due to the confirmatory factor analysis supporting a one factor solution (General Professional Learning) rather than a seven factor solution.

The participants illustrated the NBPTS Exceptional Needs Specialist certification process as a dynamic form of professional development resulting in the emergence of a professional identity within their classroom as well as their educational environment with colleagues and superiors. Each participant also conveyed personal changes that transpired as a result of their participation in the NBPTS Exceptional Needs Specialist portfolio submission leading to NBPTS certification as a NBPTS Exceptional Needs Specialist. The essence of the NBPTS Exceptional Needs Specialist's experience was that of professional growth. The essence of the phenomenological experience can best be described by Participant F, who possessed more experience and tenure as an NBPTS Exceptional Needs Specialists than other participants, when she stated that the most notable element of the experience was:
The camaraderie and unity that I share with other teachers that are NBPTS certified. It is like a bond that can be only understood by those that have experienced the process. We share an understanding that others do not share about teaching. You are in a league of teachers that have been transformed. You share conceptual thinking where you have pushed yourself to obtain something and to engage in a process that transforms your teaching. You have a maturity level about teaching that cannot be understood without going through the NBPTS process.
REFERENCES


APPENDIX A

NSDC STANDARDS ASSESSMENT INVENTORY SURVEY-2
Standards Assessment Inventory (SAI-2)

Information About You

Learning Forward has launched new Standards for Professional Learning! We want to know about your professional learning experience at your school. Please choose the responses that most accurately reflect your own experiences at your school.

1. Role
   - Content Area Teacher
   - Support Teacher
   - Elective or Special Area Teacher

2. Experience Level as a Teacher
   - Less than 1 year
   - 1–4 years
   - 5–10 years
   - 11–16 years
   - 17–25 years
   - More than 25 years

3. Years at Current School
   - 0–1 years
   - 2–4 years
   - 5–9 years
   - 10–20 years
   - 21 or more years

4. School Setting
   - Career/Technical
   - College Preparatory
   - Early Learning Center
   - Early Childhood
   - Elementary
   - Middle
   - High

5. School Governance
Learning Communities

Standard: Professional learning that increases educator effectiveness and results for all students occurs within learning communities committed to continuous improvement, collective responsibility, and goal alignment.

Please rate the following items:

   Always  Frequently  Sometimes  Seldom  Never  Don't Know

1. My school's learning communities are structured for teachers to engage in the continuous improvement cycle (i.e. data analysis, planning, implementation, reflection, and evaluation).
2. Learning community members in my school believe the responsibility to improve student learning is shared by all stakeholders, such as all staff members, district personnel, families, and community members.
3. My school system has policies and procedures that support the vision for learning communities in schools.
4. All members of the learning communities in my school hold each other accountable to achieve the school's goals.
5. Learning communities in my school meet several times per week to collaborate on how to improve student learning.
6. In my school, some of the learning community members include nonstaff members, such as students, parents, or community members.
7. In my school, learning community members demonstrate effective communication and relationship skills so that a high level of trust exists among the group.

Leadership

Standard: Professional learning that increases educator effectiveness and results for all students requires skillful leaders who develop capacity, advocate, and create support systems for professional learning.

Please rate the following items:

   Always  Frequently  Sometimes  Seldom  Never  Don't Know

8. My school's leaders consider all staff members to be capable of being professional learning leaders.
9. My school's leaders regard professional learning as a top priority for all staff.
10. My school's leaders cultivate a positive culture that embraces characteristics such as collaboration, high expectations, respect, trust, and constructive feedback.
11. My school’s leaders are active participants with other staff members in the school’s professional learning.

12. My school’s leaders advocate for resources to fully support professional learning.
13. My school’s leaders provide teachers with equitable resources to support our individual and collaborative goals for professional learning.
14. My school’s leaders speak about the important relationship between improved student achievement and professional learning.

Resources

*Standard:* Professional learning that increases educator effectiveness and results for all students requires prioritizing, monitoring, and coordinating resources for educator learning.

**Please rate the following items:**

*Always  Frequently  Sometimes  Seldom  Never  Don’t Know*

15. In my school, time is available for teachers during the school day for professional learning.
16. Professional learning is available to me at various times, such as job-embedded experiences, before- or after-school hours, and summer experiences.
17. Practicing and applying new skills with students in my classroom are regarded as important learning experiences in my school.
18. Teachers in my school have access to various technology resources for professional learning.
19. Professional learning expenses, such as registration and consultant fees, staff, and materials, are openly discussed in my school.
20. Teachers in my school are involved with monitoring the effectiveness of the professional learning resources.
21. Teachers in my school are involved with the decision making about how professional learning resources are allocated.

Data

*Standard:* Professional learning that increases educator effectiveness and results for all students uses a variety of sources and types of student, educator, and system data to plan, assess, and evaluate professional learning.

**Please rate the following items:**

*Always  Frequently  Sometimes  Seldom  Never  Don’t Know*

22. My school uses a variety of student achievement data to plan professional learning that focuses on school improvement.
23. My school uses a variety of data to monitor the effectiveness of professional learning.
24. In my school, teachers have an opportunity to evaluate each professional learning experience to determine its value and impact on student learning.
25. A variety of data are used to assess the effectiveness of my school’s professional learning.
26. In my school, various data, such as teacher performance data, individual professional learning goals, and teacher perception data, are used to plan professional learning.
27. In my school, teachers use what is learned from professional learning to adjust and inform teaching practices.
28. Some professional learning programs in my school, such as mentoring or coaching, are continuously evaluated to ensure quality results.
29. In my school, how to assess the effectiveness of the professional learning experience is determined before the professional learning plan is implemented.

Learning Designs

Standard: Professional learning that increases educator effectiveness and results for all students integrates theories, research, and models of human learning to achieve its intended outcomes.

Please rate the following items:

Always  Frequently  Sometimes  Seldom  Never  Don’t Know

30. In my school, teachers have opportunities to observe each other as one type of job-embedded professional learning.
31. Teachers in my school are responsible for selecting professional learning to enhance skills that improve student learning.
32. Professional learning in my school includes various forms of support to apply new practices.
33. The use of technology is evident in my school’s professional learning.
34. In my school, teachers’ backgrounds, experience levels, and learning needs are considered when professional learning is planned and designed.
35. Teachers’ input is taken into consideration when planning schoolwide professional learning.
36. In my school, participation in online professional learning opportunities is considered as a way to connect with colleagues and to learn from experts in education.

Implementation

Standard: Professional learning that increases educator effectiveness and results for all students applies research on change and sustains support for implementation of professional learning for long-term change.

Please rate the following items:

Always  Frequently  Sometimes  Seldom  Never  Don’t Know

37. A primary goal for professional learning in my school is to enhance teaching practices to improve student performance.
38. Professional learning experiences planned at my school are based on research about effective school change.
39. My school has a consistent professional learning plan in place for three to five years.
40. Teachers in my school receive ongoing support in various ways to improve teaching.
41. In my school, teachers give frequent feedback to colleagues to refine the implementation of instructional strategies.
42. My school's professional learning plan is aligned to school goals.
43. In my school, teachers individually reflect about teaching practices and strategies.

Outcomes

Standard: Professional learning that increases educator effectiveness and results for all students aligns its outcomes with educator performance and student curriculum standards.

Please rate the following items:

Always  Frequently  Sometimes  Seldom  Never  Don’t Know

44. Professional learning experiences in my school connect with teacher performance standards (e.g. teacher preparation standards, licensing standards, etc.).
45. Student learning outcomes are used to determine my school's professional learning plan.
46. My professional learning this school year is connected to previous professional learning.
47. All professional staff members in my school are held to high standards to increase student learning.
48. Professional learning at my school focuses on the curriculum and how students learn.
49. Professional learning in my school contributes to increased student achievement.
50. In my school, professional learning supports teachers to develop new learning and then to expand and deepen that learning over time.

Please provide your comments about this assessment inventory in the comment box.
APPENDIX B

IRB APPLICATION
University of Alabama
Human Research protections program
IRB Application
Dania Buchanan

Purpose, Objectives, Design
1. The purpose of this study is to administer the NSDC Standards Assessment Inventory (SAI) (Appendix A) in order to determine if the NBPTS (2006) process is a practical means of professional development for special educators based on quality indicators of professional development for special educators.
2. What are the learning outcomes for special educators as the result of completing the NBPTS process?
3. The design of the study involves a quantitative and qualitative research approach. The quantitative data will be obtained through the use of survey research. The qualitative data will be obtained through telephone interviews of volunteer NBPTS recipients.
4. There is minimal research on the professional development benefits for special educators through the NBPTS process and the literature lacks a validated survey to determine if there is a correlation between the NBPTS process and quality indicators of appropriate professional development for special educators. Therefore, the purpose of this study is to administer the NSDC Standards Assessment Inventory (SAI) (Appendix A) in order to contribute to the research base on the use of process as viable professional development for special educators.

Study Procedures
1. Do NOT describe sample criteria and selection here.
2. The researcher will obtain contact information from the National Board for Professional Teaching Standards office concerning recipients of the NBPTS Exceptional Needs Specialists for the State of Alabama. The researcher will send all recipients a letter of informed consent with the survey attached to the letter. The letter will request volunteers for the telephone interview. The telephone interviews will be conducted.
3. The survey will be conducted in the participants’ natural environment using a computer and the internet.
4. The study will involve special educators certified to teach in the State of Alabama. Each participant will have at least 3 years of teaching experience and hold at least a Bachelor’s Degree in Education.
5. The researcher will require some training in administering a survey via the internet.
6. Deception will not be used.
Study Background
1. The need for appropriate professional development to create quality educators has not been ignored. Even so, special educators find themselves in the midst of educational reform with minimal direction relative to professional development due to the special educator’s changing role in the classroom. The NCLB Act (2002) encourages school systems to facilitate professional development opportunities through partnerships with universities, educator mentoring programs, and collaboration with professors within education. Yet, the declining number of experienced educators and teacher preparation programs for special educators (Smith, Pion, Tyler, & Gilmore, 2003) make the development of such partnerships difficult.

   According to Whitaker (2003), special educators require professional development in competencies related to developing and meeting the individual instructional needs of their students, discipline, professional motivation, curriculum, and special education policies and procedures. Rude and Brewer (2003) suggested that special educators be provided professional development in the area of professional isolation. Billingsley (2005) suggested providing special educators opportunities to participate in leadership capacities within the structure of the local school. De Valenzuela, Connery, and Musanti (2000) proposed professional development for special educators based on standards developed by the Council for Exceptional Children (1998) in the areas of appropriate interaction with families and communities, effective communication and collaboration, and maintenance of professional and ethical standards. Special educators are required by the educational structure to participate in professional development that focuses on classroom instruction as well as the affective experience of the student and family.

2. This study is the investigator’s doctoral dissertation.

Subject Population
1. This study will involve approximately 131 special educators who have received the National Board for Professional Teaching Standards Exceptional Needs Specialist certificate.
2. This population is not a vulnerable population.
3. This study will not exclude anyone.

Subject Recruitment Methods
1. The population has been identified by the National Board for Professional Teaching Standards. The researcher will obtain contact information from the NBPTS and contact participants via the internet.
2. Advertising will not be used for this study.
3. Identifying and recruiting participants for this study does not require special procedures.
4. The participants in this study are English speaking participants.

Risks
1. This study does not involve any physical, psychological, social, economic, or legal risks.
2. This study is not a medical study.
3. This study does not require international research.
4. The community will not be involved in this study.
Evaluation of Level of Risk
1. The level of risk for this study is low.

Special Precautions/ Safeguards Against Risk
1. The participants will be observed to prevent medical or psychological risks.
2. This study is not clinical research.
3. The data will be kept anonymous.
4. The researcher will report any temporary or permanent suspension of the study to the IRB.

Benefits
1. There are no direct benefits to the participant.
2. The study will benefit science by contributing to the research base on the use of the NBPTS process as viable professional development for special educators.
3. This study does not use vulnerable participants.
4. This study does not use foreign countries or communities.
5. This study has minimal risks with no direct benefit to the participant.
6. This study has minimal risks with no direct benefit to the participant.

Privacy and Confidentiality
1. See Policy
2. The participants in this study provide their personal data to the National Board for Professional Teaching Standards which disseminates the data to reliable persons. The information and the data obtained will be handled by the researcher.
3. The use of the internet poses some risk to the confidentiality of the data collected. However, all measures will be taken to prevent access to the data collected. The data will be stored and utilized until the purpose of the study has been reached. The data will be destroyed upon completion of the study. The researcher and the researcher’s mentors will have access to the data for evaluative purposes.

Incentives and Compensation
1. This study will not provide any incentives to the participants.
2. This study will not involve money as an incentive.

Costs to the Subjects
1. This study will not cost the participants anything monetarily.

Care for Research Related Injury
1. The participant will bear the cost of any research related injury.

Informed Consent Process Policy
1. Policy
2. Consent for participation in the study will be obtained from each participant through a faxed document with their signature consenting to participation. The survey will be emailed after consent from the participant has been received.
3. The participants will be provided the opportunity to ask questions about the study through email, telephone contact, and/or mail.
4. The participant will not be able to participate if they cannot provide legally effective informed consent.
5. The participants will provide consent for participation in both the quantitative and qualitative portion of the study.
6. The individuals that are participating in this study are all English speaking individuals.
7. The individuals that are participating in this study are all English speaking individuals.

Informed Consent Documentation
1. This study will utilize submission of responses as evidence of informed consent.
2. This study will not use deception or concealment as part of the study.
3. This study will utilize submission of responses as evidence of informed consent
4. This study will not use emancipated individuals.

Assent
1. This study will not use minors or persons with cognitive or decisional impairment.
2. This study does not require assent.
3. This study does not require assent.

Consent/ Assent Forms
1. Not Applicable
2. Not Applicable
3. Not Applicable
4. Not Applicable

Appendixes/ Attachments
Appendix A: Standards Needs Assessment
Appendix B: Scientific Portion of Dissertation
APPENDIX C

REQUEST FOR CONFIDENTIAL AND APPROPRIATE USE OF NBPTS DATA FOR EDUCATIONAL RESEARCH
REQUEST for Confidential and Appropriate Use of NBPTS DATA for Educational Research

The National Board for Professional Teaching Standards recognizes its responsibility to make data available to qualified individuals for purposes of research and analysis. NBPTS also has a responsibility to take measures to protect the confidentiality of individuals and organizations participating in the National Board Certification process and to assure compliance with its various contractual agreements. NBPTS retains full discretion to deny any request for release of data, to the full extent permitted by law, if NBPTS believes the requester may not comply with the provisions of the policy or for any other sound reason.

To request permission for confidential and appropriate use of NBPTS data, provide the following information as specifically and completely as possible. Please type or print responses.

Permission requested by:

<table>
<thead>
<tr>
<th>Name: Dania L. Buchanan</th>
<th>Date: October 25, 2012</th>
</tr>
</thead>
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<tr>
<td>Organization: The University of Alabama</td>
<td></td>
</tr>
<tr>
<td>Title: Doctoral Candidate</td>
<td></td>
</tr>
<tr>
<td>Please select your status below; Students, please provide contact information for yourself in the left column and for your advisor in the right column</td>
<td></td>
</tr>
<tr>
<td>Researcher</td>
<td>Student (complete both columns)</td>
</tr>
<tr>
<td>Address: 6320 Covington Lane</td>
<td>Box 870232; 224 Graves Hall</td>
</tr>
<tr>
<td>City/State/Zip: Tuscaloosa, Al. 35405</td>
<td>Tuscaloosa, Al. 35487</td>
</tr>
<tr>
<td>Phone Number: 205-394-1085</td>
<td>205-348-9863</td>
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<tr>
<td>Fax Number:</td>
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</tr>
<tr>
<td>Email: <a href="mailto:dbuchanan167@gmail.com">dbuchanan167@gmail.com</a></td>
<td><a href="mailto:mbeirne@bamaed.ua.edu">mbeirne@bamaed.ua.edu</a></td>
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</tbody>
</table>

1. Indicate the type of NBPTS data requested:
   - [ ] Technical Analysis Report
   - [ ] Annual Assessment Supplement(s)
   - [x] Prepared Data Set(s) (Data requested to complete a research project)

2. In the spaces below, please specify the data requested:
   I would like contact information for all the NBPTS Exceptional Needs Specialists in the state of Alabama including electronic mailing addresses, home mailing addresses, telephone numbers, and systems of employment.
3. Explain the purposes for which you plan to use the NBPTS data. A detailed summary of your study must be provided. In addition, in order for this request to be approved, an Internal Review Board (IRB) approval letter and advisors may be required. I will use this information to contact NBPTS Exceptional Needs Specialist in the state of Alabama in order to administer a demographic survey, a Standards Assessment Inventory, and to obtain volunteers to participate in qualitative research regarding their NBPTS certification experience. (Detailed summary attached)

4. Will the data and/or your analyses of the data appear in document(s) or publication(s)?

Yes [x] No

5. If yes, describe the document(s)/publication(s) and the fee(s), if any, that will be charged for the document(s)/publication(s).

- Doctoral Dissertation

Please indicate your acceptance of these terms by initialing next to each statement:

☐ I hereby designate acceptance of and agreement with the following terms of permission;
☐ I agree to protect the confidentiality of individuals, and where appropriate, institutions about whom data are provided;
☐ I agree to protect all NBPTS data by ensuring that the data are stored in a secure manner;
☐ I agree not to share the data with any other individuals without express written consent from the National Board;
☐ When applicable, I agree to reimburse NBPTS for all costs associated with any customized data assembly and/or formatting (an analysis of costs will be provided prior to data processing);
☐ When applicable, I agree to provide NBPTS, before dissemination or publication, with a draft copy of any manuscript for the purpose of assuring that candidate and institutional confidentiality has been maintained;
☐ I agree to acknowledge in any reports, documents or publications NBPTS as the source of the data and provide the following citation:

"Some or all of the data in the research described herein was provided by the National Board for Professional Teaching Standards. All conclusions stated in this report are those of the authors, and no endorsement by the National Board for Professional Teaching Standards should be implied."

Dania L. BuchananSignature 10/18/11
Printed Name Date

Below for NBPTS use only:

Approved in accordance with NBPTS policies and guidelines and the terms of permission and with the understanding that full credit will be given to the source.

APPROVED BY: National Board for Professional Teaching Standards

Name: [ ] Title:

Signature: [ ] Date:

Form Revised 05-2006
November 27, 2012

Ms. Dania L. Buchanan
University of Alabama
6320 Covington Lane
Tuscaloosa, AL 35405

Dear Ms. Buchanan:

Thank you for contacting the National Board for data assistance with your doctoral research on the NBPTS experience of NBCTs in Alabama certified in the area of Exceptional Needs Specialists.

The National Board's Research Review Panel has reviewed your data request. The National Board will be pleased to provide you with a report that will detail the following data about NBCTs in Alabama who have certified in Exceptional Needs: their school district, city, certification area, and certification year. The data are provided on the National Board's Web site under the NBCT Directory, but the special report will be in an Excel document and you will be able to search, e.g., by district.

Because of the confidentiality agreements we have with NBCTs, our policy does not allow us to release their email addresses or contact information.

Thank you for your interest in the National Board. Please let me know if you would like to receive this report. You may contact me at mdanjou@nbpts.org.

Sincerely,

Marc D'Anjou
Corporate Secretary
APPENDIX D

LETTER SENT TO CANDIDATES REQUESTING PARTICIPATION
First and Last Name
Street Address
City, State, Zip
Email Address

Dear First and Last Name,

Thank you for taking the time to read this correspondence. I am a National Board certified exceptional needs specialist and a doctorate student at the University of Alabama. You have been chosen as a participant in an independent study of special educators who have received National Board certification. I am asking for your professional participation in a study that will assist me in completing the requirements for my doctorate in education. The research being conducted is independent of the National Board for Professional Teaching Standards and your participation in this study will have no bearing on your NBPTS certification.

This study proposes to investigate the use of the National Board for Professional Teaching Standards certification process as appropriate professional development for special educators. Participants will complete a survey and one hour personal/telephone interview concerning your personal experience in regard to the certification process. The recorded interviews will be analyzed to identify teacher’s perceptions, ideas, and practices in relation to the certification process as professional development.

Your privacy will be protected to the maximum extent allowable by law. The subjects shall not be identifiable in any report of research findings; on request and within these restrictions results may be made available to subjects. If you have any questions about this study, please do not hesitate to contact me.

Sincerely,
Dania Buchanan
Please provide the following information about yourself by checking the appropriate selection.

Name: _____________________________________________

Address: ___________________________________________

School Address: ____________________________________

Phone Numbers:  H: ______________  C: _____________  W: ______________

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Would you be willing to participate in the Qualitative portion of this study?

Yes, I would like to participate in additional interviews and data collection for this study.

No, Please do not contact me for additional data.
APPENDIX F

NATIONAL BOARD FOR PROFESSIONAL TEACHING STANDARDS QUALITATIVE RESEARCH INTERVIEW PROTOCOL FOR SPECIAL EDUCATORS
**DIRECTIONS:**
First, read each statement carefully. Then, rate each item on a scale of “0” Never to Always “4” by circling the number corresponding to your choice based upon your experience in completing the National Board for Professional Teaching Standards process. Thank you for your time!

0 Never
1 Seldom
2 Sometimes
3 Frequently
4 Always

**Theme 1: Assessment Informs Instruction**
In this entry, the candidate demonstrates their ability to investigate a student’s learning or behavior need, formulate a meaningful question directly related to that student’s need, design and/or select and then use an assessment tool(s), use the information gathered to implement new and/or modified goals and then instruct in order to foster the featured student’s growth and development.

<table>
<thead>
<tr>
<th>Quality Indicators of Professional Development for Special Educators</th>
<th>Never “0”</th>
<th>Seldom “1”</th>
<th>Sometimes “2”</th>
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<td>Ethics &amp; Professional Practice</td>
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Theme 2: Fostering Communications Development
In this entry, the candidate will demonstrate how you design and implement instruction that furthers student learning in communication or literacy. The candidate will provide evidence of their ability to plan and deliver instruction to a student of their choosing and analyze and reflect on their work with this particular student. This entry is designed to capture their ability to design and implement instruction that furthers student learning in communication or literacy.

<table>
<thead>
<tr>
<th>Quality Indicators of Professional Development for Special Educators</th>
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Theme 3: Enhancing Social Development
In this entry, the candidate will demonstrate how they design and implement meaningful learning experiences to further an individual student’s social development and facilitate that student’s participation in a group and/or environment. The candidate will provide evidence of their ability to plan and instruct a student of their choosing and analyze and reflect on their work with this particular student. This entry is designed to capture the social instruction they provided a student. Because social learning occurs in a context, they will illustrate the way in which they collaborated with the student’s family and engaged others to support the student’s participation in the group/environment.

<table>
<thead>
<tr>
<th>Quality Indicators of Professional Development for Special Educators</th>
<th>Never “0”</th>
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</table>
**Theme 4: Documented Accomplishments: Contributions to Student Learning**

The candidate can demonstrate their commitment through evidence of their efforts to establish and maintain partnerships with students’ families and the community, through evidence of their growth as a learner, and through work that they do with other teachers at a local, state, or national level. This entry is designed to capture evidence of the way in which their role as a teacher is broader than what they do in their classroom. (Not all teachers teach in a “typical” classroom setting—it may be a resource room, library media center, studio, gymnasium, auditorium, workshop, outdoors, etc. The word “classroom” refers to wherever student instruction takes place, regardless of setting.) It provides them with an opportunity to show how what they do outside of the classroom (or beyond explicit student instruction) impacts student learning.

<table>
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<tr>
<th>Quality Indicators of Professional Development for Special Educators</th>
<th>Never “0”</th>
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<th>Sometimes “2”</th>
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APPENDIX G

DATA MANAGEMENT PLAN
Data Management Plan

Section I: Research Purpose

The purpose of this study was to determine the extent to which the current practice of professional development within local education districts is supportive of professional development that adheres to research-based professional development standards by administering the NSDC Standards Assessment Inventory-2 (Appendix A) and to determine the perception of NBPTS Exceptional Needs Specialists in respect to the NBPTS (2006) process as a practical means of professional development for special educators based on quality indicators of professional development for special educators.

Section II: Research Questions

This study will investigate the following research questions and null hypothesis:

1. What are the perceptions of NBPTS Exceptional Needs Specialists certificate recipients of their local schools’ professional development programs ability to adhere to standards representing best practice for professional learning?

2. What are the perceptions of NBPTS Exceptional Needs Specialists of their professional development practices prior to completing the NBPTS process?

3. What are the perceptions of NBPTS Exceptional Needs Specialists of their professional development practices since completing the NBPTS process?

4. What are the ways in which the Exceptional Needs Specialists instructional identity changed through the NBPTS certification process and how might that change inform the local education professional development program?
5. What are the perceptions of Exceptional Needs Specialists effectiveness as demonstrated by their response to their involvement in the performance-based portfolio assessment for the NBPTS certification process?

**Section III: Data Management Plan**

Phase I: *NSDC Standards Assessment Inventory-2* (Appendix A)

Phase II: Qualitative Research: Phenomenological Study

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APPENDIX H

QUALITATIVE INTERVIEW QUESTIONS
1. Why did you decide to participate in the NBPTS certification process?
2. Did your teaching change as a result of completing your portfolio? How?
3. How did completing the portfolio benefit you personally? What parts(s) of the portfolio were most beneficial? What parts(s) were least beneficial?
4. If you could change the portfolio requirements, what suggestions would you make?
5. Do you think that completing your portfolio will enable you to mentor other teachers so that they can improve their teaching? Why?
6. What were the reactions of your colleagues to you and your experiences as you were completing your portfolio?
7. What type(s) of support would/did you find most helpful to you as you were completing your portfolio?
8. What feelings were generated by the experience?
9. What thoughts stood out for you
APPENDIX I

INTERVIEW TRANSCRIPTS
Exceptional Needs Specialist A Interview

Why did you decide to participate in the NBPTS certification process?
My first thought was money. I then thought about the qualifications the certificate carries and what it looks like on a resume. Once I got into it, I enjoyed the research and the learning process. I enjoyed the things that I learned about myself and my teaching was valuable to me. I realized how much I needed to do different in my classroom. It turned out to be a learning process for me that was more valuable to me than graduate school.

Did your teaching change as a result of completing your portfolio? How?
It did. I learned how to do more informal testing. I focused on tracking the progress that my students were making. I realized the importance of community involvement and parent involvement. I thought that I was involving parents prior to the process but not to the extent that it was valuable. I began to use communication notebooks and making contacts with the parents. The people in the community expressed excitement that I was contacting them to encourage their involvement with the school. I went after resources that I had not formerly used in the community. I gained confidence in making those contacts.

How did completing the portfolio benefit you personally? What parts (s) of the portfolio were most beneficial? What parts (s) were least beneficial?
It made me feel like I knew more about what I was doing. It gave me confidence. I felt more prepared. I enjoyed the community involvement entry and the assessment entry. The assessment entry involved me using assessment and picture symbols to teach a child the importance of completing a process. I wanted my entry to be useful for the student not just a one-time activity. They were all beneficial to me. I like some activities more than others.

If you could change the portfolio requirements, what suggestions would you make?
I do not know that I would make any changes.

Do you think that completing your portfolio will enable you to mentor other teachers so that they can improve their teaching? Why?
I can mentor other teachers. I have been doing that. The process has given me a better understanding about what special education teachers need to focus on. The process helped me develop a structure for mentoring others.

What were the reactions of your colleagues to you and your experiences as you were completing your portfolio?
I did not have any negative. I had some people say that they did not think I could do it. I had others gripe and complain about completing it but I enjoyed it. I felt supported.

What type(s) of support would/ did you find most helpful to you as you were completing your portfolio?
I enjoyed encouraging comments. The principal allowed us to stay after school and work on our entries. I think that professional leave was helpful. We got a couple of days to complete it.

What feelings were generated by the experience?
I felt like I had gone back to school. I was frustrated. I was scared because I thought that I could not do this. Through the process I realized that they are asking me to do what I should be doing in my classroom. I was overwhelmed at times. I had a feeling of accomplishment.

**What thoughts stood out for you?**
I feel good about what I have done and what it represents. The feelings of accomplishment stand out. I think about it as a self searching process. The depth of the process gave me affirmation that I was doing some things right.

**Professional Development or a Certification Process?**
I think that it is the best professional development experience that I have participated in after 25 years of teaching. It changed the way I teach and my attitude about teaching. The administration has changed and ideas change but our superintendent has stated that he wants more board certified teachers. The economy has caused problems with people certifying because of the lack of financial support. It is more professional development than a certification process. It provides affirmation about what I was doing right and forced me to look outside of what I knew to enhance my entries.
Exceptional Needs Specialist B Interview

Why did you decide to participate in the NBPTS certification process?
At the time, Jefferson County had the STAR program and they were paying for certification. Several teachers and I decided to do it together. I had more than 20 years in and decided that this would be a good add on for retirement. The extra money would be good. Once I got into the process, it took me from almost ready to retire to hey I have more to give. I can do more with my students. The reflective part of it really made me think about what I was doing.

Did your teaching change as a result of completing your portfolio? How?
I think that it did. I think that I was able to sit back and think through things. I think my age has some to do with it as well. I have been working with special needs since I was in high school. I went to college knowing that I was going to be a special education teacher working with the more challenging students. I matured. It taught me to sit back and look at what I was doing. There are no wrong trails. You have to try and then try again. Look at what you’re doing and what is not working. Fix it and then try again. It helped me be a better teacher because it made me stop and think.

How did completing the portfolio benefit you personally? What parts (s) of the portfolio were most beneficial? What parts (s) were least beneficial?
I think that it helped me personally in the same way. I became a less stressed person. It took me three years to pass the process and gain certification. I think I let go of some of my OCD behavior. My flaw was in the answers that I gave. I wanted to elaborate but I had to have others tell me to just answer the question. I wanted it to flow a certain way. I would flower it up and that was my down fall. The third time I stuck to the question and answering it. I think that some of us at a certain age find it hard to be videotaped. After submitting the video after the third time I realized that this is what I do. If they do not like it, then I will have to just accept not getting certification. I know that I am a good teacher. I treated it like another day. I was a good teacher prior to the process. I think that we all go through cycles as teachers. We all have years that aren’t so great and others that are wonderful. As you grow and mature, you are more likely to learn from your mistakes and you move on. I am very organized and in special education that is huge. NBPTS certification put it in perspective for me.

If you could change the portfolio requirements, what suggestions would you make?
I think that I would change or focus on the first three. The final entry I would simply add to the entry. The first three were critical. The last entry changes for you every year.

Do you think that completing your portfolio will enable you to mentor other teachers so that they can improve their teaching? Why?
I think it helped me step back and see what is truly important for a teacher. I think that it is important to help younger teachers as they come in as well as veteran teachers who are in a slump. It helped me help others by forcing me to be straight forward with others. I managed meetings better because it made me focus on the questions and the issues at hand. Just do what they tell is what stays in my head. It helped to stick to the subject personally and professionally. Just stick to the subject is what I tell myself.
What were the reactions of your colleagues to you and your experiences as you were completing your portfolio?
They were very upset why it took me so long to pass. I was upset as well. The teachers that have not been through the process did not understand because I had done what I needed to do. My colleagues were very supportive throughout my entire process. I believe that it is all in the writing. The best teachers in the world did not get it. It is all in the ability to communicate what you are doing in the classroom and why.

What type(s) of support would/ did you find most helpful to you as you were completing your portfolio?
My principal was absolutely wonderful. She gave me time to pack it up and write it up. I got professional days to complete the process. My principal was willing to give me more time. I had the support of the staff. My family was very supportive. My husband told me to do what I needed to do. I believe that the process gives teachers respect for what they do. I am not referring to money. Just respect for doing what I do. If you criticize us constantly takes away from our ability to do our jobs.

What feelings were generated by the experience?
I do not procrastinate. I like to sit down and knock it out at once so that my thought process stays on track. I was overwhelmed.

What thoughts stood out for you?
I did not get enough clarification on why I did not pass. The second time I got more clarification about where I was weak in the process.

Professional Development or a Certification Process?
I think it is professional development. In my instant it was professional development. It impacted the way I do things in my classroom. I changed the way I reflect on things. I am more reflective and introspective about my work and my interaction with my students.
Exceptional Needs Specialist C Interview

Why did you decide to participate in the NBPTS certification process?  
Truth, a raise. I wanted the five thousand for my classroom. When I got through, the money was great but it was also cool to be able to say that I did it. I felt a sense of accomplishment.

Did your teaching change as a result of completing your portfolio? How?  
Yes my teaching changed. I felt more confident in what I was doing and it made me more confident in researching new things to use in my classroom. When you teach special education, every year is a new challenge. You have to research for new kids every year. I guess I felt more confident and competent to do that. I was able to use the knowledge and where to look.

How did completing the portfolio benefit you personally? What parts (s) of the portfolio were most beneficial? What parts (s) were least beneficial?  
It did not benefit me personally. I thought the videos and the questions about the videos were most beneficial to me. The realization that neither your video nor your lesson had to be perfect was an eye opening experience for me. The idea is that you need to look at how you react to your lesson and determine what you would do different. Social skills…one of my kids brought his imaginary dog to circle time… I felt like being perfect was not the focus but responding to the child in an appropriate way was important. The least beneficial was entry number four. I guess it helped that you looked at what you had done. I realized that I had done more than I thought I had done. The rest of the entries were relevant for special education. Especially for me. The use of assessment, communication, and social skills were all important.

If you could change the portfolio requirements, what suggestions would you make?  
I do not think that I would change anything. People say it’s hard but it’s not hard. It is time consuming and overwhelming. You have what you need to complete the activity. Our role is changing in the classroom. I cannot teach the way I want to teach. I am more a coordinator rather than a teacher. The process was easier than comps for my master’s degree. It made me study some things. I was concerned about questions dealing with older students. I thought it was a good process.

Do you think that completing your portfolio will enable you to mentor other teachers so that they can improve their teaching? Why?  
Yes, I think that our principal trusts me to mentor teachers without the certification. He does expect more from NBPTS teachers. He does not baby us. He tells us what to do and tells us to figure it out. We mentor teachers and students. It is not a spoken expectation but we know that he expects it to be complete.

What were the reactions of your colleagues to you and your experiences as you were completing your portfolio?
I thought everybody was helpful. I got help from others that did not like me very much was helpful to me. I got advice from others that assisted me in cutting to the chase and it helped me be a better writer. I can write more concisely.

**What type(s) of support would/ did you find most helpful to you as you were completing your portfolio?**

I participated in a yahoo group. I would read the materials to get answers. The ability to get others to read the entries was helpful. They helped us because they wanted to help us. The teachers in the building embraced us both general educators and special educators. The general educators offered the most help. I guess it was good that they did not know special education. If they did not understand something I had written then I knew I needed to change it so that it could be understood.

**What feelings were generated by the experience?**

In the past I would have said I was crazy. It was tedious and I felt overwhelmed at times. I hated the videos. I had a lot of advantages because I had a buddy. My buddy and I supported each other through phone calls and readings. My buddy and I complemented each other in our writing and could help. My buddies son was able to video us using professional equipment. Our videos were done one time and we were done. I recommend to others to find a professional to video and pay him. It is worth it.

**What thoughts stood out for you?**

What if I don’t get it and what if my buddy does? I feared failure. I felt like it was scary. What if I put all this work in? I felt a sense of accomplishment throughout the process. I felt good about each entry. I had an ego trip going on. I do not get enough of someone telling me that I did a good job. I felt camaraderie with my buddy and other teachers. It helped improve relationships with general educators that I had problems with. After the process, I think they had a new respect for me. It changed our relationship. They saw what I did as being important and that I was not stupid.

**Various groups say that the National Board certification process is just that, a certification process. Do you believe that it is a certification process or a form of professional development?**

I think that the only thing that felt like certification were the assessments. The portfolio was about learning about what I do and see if what I am doing is right or wrong and if I can do it better. It taught me to pay attention to the little things. I think it was personal growth as well as professional growth because you learn professional thing you should be doing. If a person took the process and looked at what they did and did nothing to change it, the process would be a certification process. When you look at it and see and you use that information to do it better than that is a professional development process. I wish that people would pay more attention to the accomplishment. Maybe I do not get pushed as hard to be a leader because I am in self contained special education contains me to my classroom. I do my thing and that separates me. I do not take on as much leadership stuff because of my personal life as well as my program that I co-direct with other professional and students with disabilities. The after school program came started because there was a need for the program. There was not a safe place for the kids with
disabilities to go after school. NBPTS assisted us in gaining confidence and realizing that we do have some sense. The continued development of the program is the result of students with disabilities aging and there continues to be a need. The certification process made me feel like I could do more. It made us braver to try new stuff. If I fail, I get up and try again.
Exceptional Needs Specialist D Interview

Why did you decide to participate in the NBPTS certification process?
Actually, I began to hear about it but no one in our system had participated in the certification process. I was going to work every day at five and went home at ten. I did that religiously for two years. We started a new program, the occupational diploma. It was a brand new program and I was in on the beginning of that. I was developing curriculum and material. A lot of what we were doing with that program was so applicable to the community and things that trying to make your lessons where they could take the skills and apply them to real life settings. It was a perfect opportunity to pursue certification. I had read a lot about what others had said about the process making them better teachers and at that time I was willing to do what I had to do to be a better teacher. I felt like it was an honor to participate in something that would allow me to achieve. Me and another special education teacher as well as a science teacher from another school applied for the grant from the state department and all three of us got it. We pursued the national board certification together. The other special education teacher did not get it but she did the next year. It was to me an honor to say I did it. I felt like it put me on equal footing with other teachers. As time went on, I became offended by the teachers who sought certification for the five thousand dollars. I would have done it regardless at the time. At that time, it was five thousand for your pay and five thousand for your classroom. I banked the money at the local college and used it to get my master’s degree. I moved from there to the EDS program, I did because I thought it would make me a better teacher and it would give me some validity as a teacher. I would have done it for nothing.

Did your teaching change as a result of completing your portfolio? How?
You know I hear people say that it made a difference in their teaching. I think that it strengthened my teaching. To be honest with you, I wish that I still had that inspiration that I had during those years. I did not have the responsibilities of family then. I was so committed to what I was doing. I was already that teacher before the process. It did give me some confidence in what I was doing. It also gave me the time on reflection. I learned not to have the thoughts that I will not use that again or would quickly toss out activities that I thought was not successful. I became more persistent through the reflection. Special education teachers tend to be very reflective. We are a different breed. But the process encouraged me to reflect on the activities in the classroom and the results that I was getting through the activities. I was so fired up. It just gave me validity and confidence. I was later in getting my degrees.

How did completing the portfolio benefit you personally? What parts (s) of the portfolio were most beneficial? What parts (s) were least beneficial?
I think the reflecting was most beneficial. The least beneficial activity I would have said at one time was the videotaping. I could not stand the videotaping and I still hate taping myself. I look back now and realize how that helped me and my mannerisms while teaching. There were times that I did not realize that I was paying more attention to one than the other.

If you could change the portfolio requirements, what suggestions would you make?
To be honest, I do not think that I would change anything about the process. The whole thing is like a puzzle piece from the preassessment to the planning and deciding what to do and providing
the instruction and assessing again and changing the process. All of that and the reflection…the process of all the activities gave me the confidence in doing what I do.

**Do you think that completing your portfolio will enable you to mentor other teachers so that they can improve their teaching? Why?**
Yes, I definitely think that it helped me help other teachers. I would share my portfolio and would show them what I had done. I shared the depth of it.

**What were the reactions of your colleagues to you and your experiences as you were completing your portfolio?**
Most of my colleagues were real pleased. Since then others have gone through the process. The science teacher is now the principal at the elementary school were instrumental in sparking the fire. The other special education teacher was instrumental as well. We have not had as many people to participate as I would like to see.

**What type(s) of support would/ did you find most helpful to you as you were completing your portfolio?**
I contacted a group from Birmingham was having help with the process. They would look at videos and read over material and gave suggestions to help with my portfolio. Feedback from others. The interactions with my colleagues were helpful.

**Various groups say that the National Board certification process is just that, a certification process. Do you believe that it is a certification process or a form of professional development?**
I think that it is professional development in the highest regard as well as certification. It is probably the most useful process. I learned things about myself. I have participated in a lot of professional development and workshops that I have never used for my students but I use the process.

**What feelings were generated by the experience?**
I had lots of frustration and anxiety. We started a program to help teachers get involved. I used my video tapes to show other teachers. I think that all that made me more appreciative of what good teachers have to go through to reach the more difficult students.

**What thoughts stood out for you?**
I would recommend all teachers to pursue the certification because it is a process that is grueling and needs to be kept in high regard. If a teacher is not doing things that national board certification has do to, the process will make you do them and force you to embrace them. Our kids are born in special education and they die in special education. If we were providing good teachers that have the time to focus on our classrooms and the students in their classrooms, the students would benefit.
Exceptional Needs Specialist E Interview

Why did you decide to participate in the NBPTS certification process?
The first time that I did it because I just recertified recently. We lived in Dothan and that school
system barely paid anything for your masters and there was only one school in town. I did it for
financial reasons. I could do my National board and get paid more for it than that system paid for
the Masters degree. It’s not that way here. I could also get help because the state was offering
scholarships so I would not have to pay as long as I passed. It was really a financial decision in
2002. I had not heard much about it except the state was offering scholarships. They sent around
a memo and I thought hey I can do this. There was another girl that did it with me.

Did your teaching change as a result of completing your portfolio? How?
TOTALLY! It went from being a personal thing to being about the practice. It became much
more reflective in nature. You know being in special education we already have this thing about
looking at test scores. We look at other assessments of students besides their state test scores. So
that part I was doing. You know, the assessment drives instruction part. But really getting down
into things and reflecting about each individual learning style of the student. You have to do this
with national board and then thinking what did I do and how could I have done this differently to
have a much better outcome. I started tweaking everything whereas, before I was focusing on
getting the lesson plans done and in or getting the IEP’s done. Just to get them done. The process
caused me to start going home and critiquing what I was doing and jotting down notes on my
lesson plans to make changes for future lesson or changing things to meet the students where
they were at. The next year when I was going to teach that skill I had corrected things and
keeping binders of everything to enhance my teaching. At the time, I was at an elementary
school. I changed to a special school for students that had been ajuvacated. They were waiting
for beds to be placed in secure facilities. They were not being placed in their normal schools. We
worked with police officers, probation officers, and juvenile detention personnel. My kids ranged
from fourth grade to seniors in high school. So I started doing a lot of reflecting and meeting
their needs where they were at and not just trying a curriculum. It made me much more
reflective, constantly wanting to improve on what I did last time. Constantly making it better.

How did completing the portfolio benefit you personally? What parts of the
portfolio were most beneficial? What parts were least beneficial?
Personally, it made me realize that it was a lot of work. I spent two whole weeks. We had a two
week spring break because we were on an alternative calendar at the time. But it made me realize
that I could persevere. I could make it through something that difficult. And personally to it
gave me more confidence as a teacher. I could see the impact that I was making. I could see the
importance of the results not just the delivery. One was the individual case study where you were
teaching the whole group but focusing on the one child. Because it made me realize that if I had
fifteen kids that did great and two kids that did not do so great. I needed to help those two. The
other part was the last part where you looked at how you effected your learning community. It
made me much more involved. I started to write my congress more. I started to do more
workshops with other teachers. I could do really good classroom management. Rather than help
individuals. I would offer workshops to help more teachers. I became an expert because of where
I worked. I would let principals know that I was having the workshop and I would have fifty
teachers to attend. I got calls from regional centers. I became much more involved
professionally. The least beneficial part for me was or annoying to me was the order of the materials. I stressed over that part but other than that I loved it.

**If you could change part of the portfolio process, what suggestions would you make?**
Well I would...they do it electronically now. I just recertified and I was the last part of the group to submit it manually. They have tried to address the problems with submitting the materials. Different groups are providing professional development and help with trying to get board certification. The only thing I would change is that the state would go back to offering scholarships because the process affected my entire career. It has changed the way I teach since obtaining certification. I have affected teachers that I come in contact with as well as students.

**Various groups say that the National Board certification process is just that, a certification process. Do you believe that it is a certification process or a form of professional development?**
The process goes way beyond a certification process. It is total professional development. It is the best professional development experience that I ever had. It was extensive and it was in depth. It was a process rather than a workshop that was forgotten after returning to the classroom. National board was something that completely changed my teaching practice. The way that I reflected. I no longer dreaded evaluations and observations. I wanted then to get feedback on how to improve my teaching. Many people who have not experienced National Boards are still intimidated by observations and evaluations. Doing the national boards you are sending in your videos to be watched. I got other peers to watch my videos and provide me suggestions on how to improve my practice. Did I miss something here? It made me collaborate with others. I became much more collaborative with others.

**Would you say the process helped you mentor other teachers as well?**
It helped me mentor other teachers. It helped me become open to being mentored by other teachers. It made me open to other people’s ideas and it made me want to share my ideas with other people. We as teachers tend to not want help. We want to think that we know that. My attitude changed. That is what is wrong with public education especially in high schools is the autonomy and lack of cooperation. They want us to participate in peer coaching, DE privatization, and such. National board is all of that and more.

**What were the reactions of your colleagues to you and your experiences as you were completing your portfolio?**
The first time I did it they were all very supportive. It was like I was the guinea pig. They thought that if you can get it then maybe we will try. I still get that reaction from people as though certification is unobtainable. They want to know how you do it. I had a teacher come to me two years ago for help. We got on line and looked up the process and what she needed to do. We decided what kind of certification would fit her best. All along the way she would ask for help. I would read her material and determine how she was answering the questions and displaying what she should know as a teacher. Where are you showing results? I see the efforts I need to see results. She would then realize that she was not answering the questions. I do know that in classes you are seen with a different amount of respect due to the national board
certification. This year I was Teacher of the year for my school and then my system. I elected by my district to represent the district on the state level. I went to the state thing in Montgomery. Out of the sweet sixteen, 8 elementary and eight high school teachers; only three did not have their National Board certification. So that says a lot.

What type of support did you find most helpful to you as you were completing your portfolio?
The first time I did not get support from my buddy. She did not help me. I got support from other coworkers. I would run ideas past them and they would say that they thought that it would work. So the kind of support I got was mainly through workshops. On my recertification, my administrator gave me professional days to work on stuff. I would be at school but working on the certification. Getting the support from my administrator through professional days was very helpful. I liked having a peer group to collaborate with other national board people to talk to. The respect from my principal was powerful. I would like to have the financial support through the state again. There are many people that would participate but their financial situation will not allow them to do that. The scholarship took the pressure off of the process. I do not understand why the state will not push the process more. The state spends money on useless professional development where teachers check the box and they never use it again. It is huge. Require after teaching five to ten years and then use it for your classroom. National board is a professional development process that you have to get into and use it because it becomes part of who you are.

What feelings were generated by the experience?
For me personally, I had a sense of accomplishment. I had a better sense of who I was in the classroom as an educator and where I needed to be going. I had a better sense of who I was as a professional and not just a teacher. I think that some people are teachers whereas this transformed me into a professional educator. It put me in that category of professional and made me continue to work to maintain my status as a professional educator.

What thoughts stood out for you or is there anything else that you would like to add?
No as far as the portfolio and community involvement, I think that the community involvement is huge. I would like to see school systems to take that part and come up with ideas on how to use community involvement to facilitate the education of students who struggle. I think that contacting congressmen, board members, and creating character programs are important and vital to our existence as teachers. Try to create initiatives and taking initiative to help others. I would like to see National Board teachers used more proactively by the administration.
Exceptional Needs Specialist F Interview

Why did you decide to participate in the NBPTS certification process?
I participated in the process because at the time it was the top professional development challenge available in 2001. I was the first teacher in the state to certify in visually impaired. I was aware of the process prior to my participation. I was waiting for my area of certification to be available.

Did your teaching change as a result of completing your portfolio? How?
Yes it did! Everything was random prior to the process. My teaching was not a systematic effort. I was having fun and hopefully making an impact but I was not looking at what I was doing in the classroom and why I was doing it. The process changed my attitude where I became more aware of myself as a teacher. I could now see the errors in my teaching. The process gave me a different lense to view my teaching and the teaching of others.

How did completing the portfolio benefit you personally? What parts (s) of the portfolio were most beneficial? What parts (s) were least beneficial?
I got to know my strengths and weaknesses. I realized that teaching was my craft as much as a piano player plays the piano or a nurse provides care. Teaching is a craft where I wanted to improve what I was doing in the classroom and how I was doing it. The process forced me to break my teaching down to a science and to understand myself as part of the learning process. This understanding is an intuitive part of teaching. The most beneficial part of the process for me was the videotaping and the analytical writing. The analytical writing was more than reflection. Reflection is something you can do with no direction. It was a form of analytical reflection. You reveal everything and then you break it down, you restructure, and restructure and then you try again. Yes, the video and the writing was the most beneficial for me. The least beneficial element was the descriptive writing that involved describing the curriculum, the students, and the plans. It was meticulous writing that I did not find engaging.

If you could change the portfolio requirements, what suggestions would you make?
I completed the process when there were six entries. I had a terrible time with the social development entry because of the students that I teach and the subject matter that I teach. I found that particular entry very constricting. I scored the lowest on this entry. I assisted other teachers from my school in going through the process and they had problems with the same entry. I felt like there were problems for teachers working with children with disabilities in subject matter classes to completing this particular entry.

Do you think that completing your portfolio will enable you to mentor other teachers so that they can improve their teaching? Why?
The process made me capable and willing to mentor other teachers. I was more confident in what I have to offer. I currently take new teachers and build a relationship with the teachers to assist them in working with our particular students. I like to think of them as comrades. We spend time reflecting on their teaching as well as their environment in teaching. We eat lunch together.
weekly to talk about issues that they are having. I voluntarily immerse myself in their classrooms and make myself available to them. The administration at my school is rather radical. They spend their time putting out fires rather than tending to the professional needs of the staff at our school. Professional development is not important to our administrators. The professional development that we participate in is left up each individual. Therefore, I work with individual teachers and collaborate with them on how to improve their practice.

What were the reactions of your colleagues to you and your experiences as you were completing your portfolio?
At the time of my initial certification, no one was really interested. They were ignorant to the process and the importance of the process. I felt like it did not matter to my colleagues if I obtained certification or not.

What type(s) of support would/did you find most helpful to you as you were completing your portfolio?
I participated in a support group with a group of teachers from another system. I also participated in the process with another teacher from my school. We used several support websites. The support group watched each other’s videos and provided feedback. A professor from the local college read our portfolio entries for us.

What feelings were generated by the experience?
I felt a mixture of excitement and nervous at the same time. I realized the significance of the process as well as the expectation involved in completing the process. The process was more serious than my master’s degree. It required that I use professional language and express myself in a professional manner. There was times that I was overwhelmed trying to make the reader understand the students that I work with and their needs. I never felt the process was easy.

Various groups say that the National Board certification process is just that, a certification process. Do you believe that it is a certification process or a form of professional development?
OH MY GOODNESS! Significant professional development. The process equals a degree but is more personal and meaningful. I attended a conference in Birmingham where a man was talking about the state of teaching. He said that teachers wanted the same respect that other professional obtain. He then said that we have the same opportunity for professionalization that other professional have through the NBPTS certification process. I found this statement to be most powerful. I believe that the NBPTS certification process is the GOLD standard of our profession. I think that it is the best professional development for anyone. The certification is merely the approval of the process. The only other experience that I have had that relates to the process was writing my dissertation. It transformed me.

What thoughts stood out for you?
Things that stood out for me is the camaraderie and unity that I share with other teachers that are certified. It is like a bond that can be only understood by those that have experienced the process. We share an understanding that others do not share about teaching. You are in a league of
teachers that have been transformed. You share conceptual thinking where you have pushed yourself to obtain something and to engage in a process that transforms your teaching. You have a maturity level about teaching that cannot be understood without going through the process.
January 14, 2013

Dania Buchanan
College of Education
The University of Alabama
Box 870232

Re: IRB # 13-OR-016, “The Impact of the National Board for Professional Teaching Standards Process on Special Educators”

Dear Ms. Buchanan:

The University of Alabama Institutional Review Board has granted approval for your proposed research.

Your application has been given expedited approval according to 45 CFR part 46. You have also been granted the requested waiver of written documentation of informed consent. Approval has been given under expedited review category 7 as outlined below:

(7) Research on individual or group characteristics or behavior (including, but not limited to, research on perception, cognition, motivation, identity, language, communication, cultural beliefs or practices, and social behavior) or research employing survey, interview, oral history, focus group, program evaluation, human factors evaluation, or quality assurance methodologies.

Your application will expire on January 13, 2014. If the study continues beyond that date, you must complete the IRB Renewal Application. If you modify the application, please complete the Modification of an Approved Protocol form. Changes in this study cannot be initiated without IRB approval, except when necessary to eliminate apparent immediate hazards to participants. When the study closes, please complete the Request for Study Closure form.

Should you need to submit any further correspondence regarding this application, please include the assigned IRB application number.

Good luck with your research.

Sincerely,

[Redacted]

Carpaniato T. Myles, MSM, CIM
Director & Research Compliance Officer
Office for Research Compliance
The University of Alabama
UNIVERSITY OF ALABAMA
INSTITUTIONAL REVIEW BOARD FOR THE PROTECTION OF HUMAN SUBJECTS
REQUEST FOR APPROVAL OF RESEARCH INVOLVING HUMAN SUBJECTS

I. Identifying information

Principal Investigator: Dania Buchanan
Second Investigator: Dr. Mary Beirne-Smith
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Title of Research Project: The Impact of the National Board for Professional Teaching Standards Process on Special Educators

Date Submitted:
Funding Source:

Type of Proposal: □ New □ Revision □ Renewal □ Completed □ Exempt
Please attach a continuing review of studies form
Please enter the original IRB # at the top of the page

II. NOTIFICATION OF IRB ACTION (to be completed by IRB):
Type of Review: □ Full board □ Expedited

IRB Action:
□ Rejected
□ Tabled Pending Revisions Date: __________
□ Approved Pending Revisions Date: __________
X Approved this proposal complies with University and federal regulations for the protection of human subjects.

Approval is effective until the following date: 1/14/13

Items approved:
□ Research protocol (dated 1/14/13)
□ Informed consent (dated 1/14/13)
□ Recruitment materials (dated 1/14/13)
□ Other:

Approval signature: __________ Date: 1/14/13
Study Title: The Impact of National Board for Professional Teaching Standards process on Special Educators (Phase I: Quantitative Study)
Dania L. Buchanan, Primary Investigator, Doctoral Student

You are being asked to take part in a research study. This study is called The Impact of National Board for Professional Teaching Standards process on Special Educators. The study is being done by Dania L. Buchanan, who is a doctoral student in special education at The University of Alabama. Ms. Buchanan is a practicing special education teacher who is certified by the National Board for Professional Teaching Standards as an Exceptional Needs Specialist. Ms. Buchanan is being supervised by Dr. Mary Beirne-Smith who is a professor of special education at The University of Alabama.

What is this study about? What is the investigator trying to learn?
This study is being done to determine the perceptions of special educators who have received the NBPTS certificate as an Exceptional Needs Specialists in regard to the professional development practices of their districts and their personal experiences in obtaining the NBPTS certificate.

Why is this study important or useful?
This information is important because there is minimal research on the experience of special educators in obtaining the NBPTS certificate and the use of the NBPTS certification process as an appropriate form of professional development for special educators.

Why have I been asked to be in this study?
You have been asked to be in this study because you are a special educator in the state of Alabama who have obtained the NBPTS certification as an Exceptional Needs Specialist.

How many people will be in this study?
This study will solicit survey completion from 144 special educators in the state of Alabama who have obtained the NBPTS certification as an Exceptional Needs Specialist.

What will I be asked to do in this study?
If you agree to be in this study, you will be asked to complete a survey regarding the professional development practices of your school district and to complete a demographic survey asking you the type of classroom instruction, area of instruction, years of teaching service, and education. You will be asked to further
volunteer to participate in an interview targeting your experience completing the NBPTS process as well as the gathering of artifacts that reflect your participation in the BPTS process.

**How much time will I spend on this study?**
It should take you 20-30 minutes to complete the survey for this study. If you should volunteer to participate in the qualitative portion of the study, the interview will take 60 minutes and the artifact gathering will take about 60 minutes to gather. The artifacts to be gathered will include materials that reflect your NBPTS experience.

**Will being in this study cost me anything?**
The only cost to you from this study is your time.

**Will I be compensated for being in this study?**
You will not be compensated for being in this study.

**What are the risks (dangers or harms) to me if I am in this study?**
There is no foreseen risk for participating in this study.

**What are the benefits (good things) that may happen if I am in this study?**
There are no direct benefits to you for participating in this study. However, you may feel good about sharing your experiences with others.

**What are the benefits to science or society?**
This study will provide the educational community insight into the NBPTS certification process for Exceptional Needs Specialists.

**How will my privacy be protected?**
Your privacy will be protected in that you do not have to participate in any portion of this study that you choose not participate in or answer any questions that you do not feel comfortable answering. The information that is obtained through your participation will be for the researcher’s use only and will not be shared with other school personnel.

If you choose to participate in the qualitative phase of this study, your personal interview will be recorded in order to develop a transcript for data analysis. Each participant has the right to refuse to answer any questions asked during the interview. The recorded interviews will be listened to and transcribed by the primary researcher in a private and secure room. The transcripts will be provided to each participant for review.

**How will my confidentiality be protected?**
The recorded material will be kept by the Primary Investigator and shared with an inter-rater reliability researcher. Confidentiality will be insured during sharing of the data by separating signed consents from data sheets, using ID numbers for records, and using Qualtrics, an electronic survey program. Participants’ names will not be used during the sharing of the results of the study or discussions of the study.
The data will be stored in a locked storage cabinet in the primary researcher’s office. The data will be destroyed within one year of the completion of the study.

What are the alternatives to being in this study? Do I have other choices?
The alternative or other choice to being in this study is not to participate.

What are my rights as a participant in this study?
Taking part in this study is voluntary. It is your free choice. You can refuse to be in it at all. If you start the study, you can stop at any time. There will be no effect on your relations with the NBPTS or the University of Alabama.

The University of Alabama Institutional Review Board ("the IRB") is the committee that protects the rights of people in research studies. The IRB may review study records from time to time to be sure that people in research studies are being treated fairly and that the study is being carried out as planned.

Who do I call if I have questions or problems?
If you have questions about your rights as a person taking part in a research study, or if you would like to make suggestions or file complaints and concerns, you may call Ms. Tanta Myles, the Research Compliance Officer of the University at (205)-348-8461 or toll-free at 1-877-820-3066.

You may also ask questions, make suggestions, or file complaints and concerns through the IRB Outreach Website at http://osp.ua.edu/site/PRCO_Welcome.html. You may email us at participantoutreach@bama.ua.edu.
I have read this consent form. I have had a chance to ask questions. I agree to take part in it. I will receive a copy of this consent form to keep for my records.

_____ Yes, I agree to have my interview audio recorded.

_____ No, I do not agree to have my interview recorded.

__________________________  __________________
Signature of Participant      Date

__________________________  __________________
Signature of Primary Investigator  Date
Study Title: The Impact of National Board for Professional Teaching Standards process on Special Educators (Phase II: Qualitative Study)
Dania L. Buchanan, Primary Investigator, Doctoral Student

You are being asked to take part in a research study. This study is called The Impact of National Board for Professional Teaching Standards process on Special Educators. The study is being done by Dania L. Buchanan, who is a doctoral student in special education at The University of Alabama. Ms. Buchanan is a practicing special education teacher who is certified by the National Board for Professional Teaching Standards as an Exceptional Needs Specialist. Ms. Buchanan is being supervised by Dr. Mary Beirne-Smith who is a professor of special education at The University of Alabama.

What is this study about? What is the investigator trying to learn?
This study is being done to determine the perceptions of special educators who have received the NBPTS certificate as an Exceptional Needs Specialists in regard to the professional development practices of their districts and their personal experiences in obtaining the NBPTS certificate.

Why is this study important or useful?
This information is important because there is minimal research on the experience of special educators in obtaining the NBPTS certificate and the use of the NBPTS certification process as an appropriate form of professional development for special educators.

Why have I been asked to be in this study?
You have been asked to be in this study because you are a special educator in the state of Alabama who have obtained the NBPTS certification as an Exceptional Needs Specialist.

How many people will be in this study?
This phase of the study will solicit four volunteer participants from 144 special educators in the state of Alabama who have obtained the NBPTS certification as an Exceptional Needs Specialist.

What will I be asked to do in this study?
You will participate in a qualitative interview regarding your experiences in regard to the National Board for professional Teaching Standards certification process and the impact that the process has had on your classroom practices. You will also be asked to provide artifacts from your classroom that reflect the NBPTS certification activities.
How much time will I spend on this study?
The interview will take 60 minutes and the artifact gathering will take about 60 minutes to gather the material that you want reflected as part of your artifact portfolio including but not limited to lesson plans, intervention plans, bulletin boards, committee participation, professional writings, and professional accomplishments.

Will being in this study cost me anything?
The only cost to you from this study is your time.

Will I be compensated for being in this study?
You will not be compensated for being in this study.

What are the risks (dangers or harms) to me if I am in this study?
There is no foreseen risk for participating in this study.

What are the benefits (good things) that may happen if I am in this study?
There are no direct benefits to you for participating in this study. However, you may feel good about sharing your experiences with others.

What are the benefits to science or society?
This study will provide the educational community insight into the NBPTS certification process for Exceptional Needs Specialists.

How will my privacy be protected?
The participants’ contact information will not be shared with other parties nor will the participant be contacted by the primary investigator for any other reason outside of the purpose of this study.

How will my confidentiality be protected?
Your personal interview will be recorded in order to develop a transcript for data analysis. Each participant has the right to refuse to answer any questions asked during the interview. The recorded interviews will be listened to and transcribed by the primary researcher in a private and secure room. The transcripts will be provided to each participant for review. The recorded material will be kept by the Primary Investigator and shared with an inter-rater reliability researcher. Confidentiality will be insured during sharing of the data by separating signed consents from data sheets, using ID numbers for records, and using Qualtrics, an electronic survey program. Participants’ names will not be used during the sharing of the results of the study or discussions of the study. The data will be stored in a locked storage cabinet in the primary researcher’s office. The data will be destroyed within one year of the completion of the study.

What are the alternatives to being in this study? Do I have other choices?
The alternative or other choice to being in this study is not to participate.
**What are my rights as a participant in this study?**

Taking part in this study is voluntary. It is your free choice. You can refuse to be in it at all. If you start the study, you can stop at any time. There will be no effect on your relations with the NBPTS or the University of Alabama.

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You may also ask questions, make suggestions, or file complaints and concerns through the IRB Outreach Website at [http://osp.ua.edu/site/PRCO_Welcome.html](http://osp.ua.edu/site/PRCO_Welcome.html). You may email us at participantoutreach@bama.ua.edu.

___ Yes, I agree to have my interview audio recorded.

___ No, I do not agree to have my interview recorded.

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**UNIVERSITY OF ALABAMA IRB**

**CONSENT FORM APPROVED:** 1/7/13

**EXPIRATION DATE:** 1/7/14