Perceptions of Ohio Principals in Schools Which Include at Least One Primary Grade Level Regarding Their Knowledge of and the Importance of Preparation for Specific Elements Relating to Special Education

Dissertation

Presented in Partial Fulfillment of the Requirements for the Degree Doctor of Philosophy in the Graduate School of The Ohio State University

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Abstract

Principal preparation programs need to be designed to meet the challenges of the 21st century. Current federal legislation, such as the No Child Left Behind (NCLB) Act (2001), states that schools are accountable for the academic progress of all students. The Individuals with Disabilities Education Improvement Act (IDEIA) (2004) is federal legislation particularly relating to students with disabilities. It fully supports the accountability measures of NCLB.

The study was designed and conducted as descriptive survey research. The purpose was to gain insight into and accurately depict the perceptions of principals of schools in Ohio which includes at least one primary grade level (kindergarten, first, second and/or third grade) regarding special education. A questionnaire was designed based upon the work of Bateman and Bateman (2006), who identified specific elements of special education which are critical for principals to be effective in their work.

Principals self-reported their perceived knowledge of and importance of preparation for these elements through a multi-anchored scale. Validity, utility, and reliability of the instrument were verified through an expert panel, a pilot study, and statistical analyses. The data sample included 194 respondents.
Overwhelmingly, the principals believe that they were not adequately prepared in their principal preparation program for many of their responsibilities as it relates to special education, learning mostly on the job. They identify which elements of special education are critical to their effectiveness. The highest priority involved three components: staffing and evaluation of personnel; discipline of students with disabilities; and inclusive practices. When analyzing the professional development needs of practicing principals clear areas of focus were identified. The highest priority involves those elements relating to inclusive practices.
Dedication

*I believe I can do all things through Christ who strengthens me.* Philippians 4:13

To my parents, Rev. Dr. W. Terry and Brenda Schoener, who provided a Christian home.

To my husband, Steven G. Randles, who has encouraged me to pursue the paths in which I have been called.

To my amazing children, Clare and Ty, who are blessings in my life.
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I would like to acknowledge the persons who have guided me through this challenging process, through words and actions:

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- Dr. Robert Hite, for continuing to be a “cricket” in my life.

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  To my advisor, Dr. Bryan Warnick, who has always challenged me to think in different ways throughout coursework, the candidacy exam, and the dissertation. It has been so critical to my growth.

  Dr. Ann O’Connell for guiding someone, who has not had a course in mathematics since high school, through the world of statistics. You made something I feared much more palatable.

  Dr. Christopher Zirkle, who has lived in both worlds: P-12 public school; and higher education. Since we share these perspectives, you have been able to frame areas that are relatively new to me.
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Field of Study

Major Field: Education
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Chapter 1

INTRODUCTION AND STATEMENT OF THE PROBLEM

The principalship has gone through extensive changes since it was first established in the 1920s. Beck and Murphy (1993) have examined the historical progression of the principalship from its inception until now. They found that while the management of the school and maintenance of order has been common throughout, each decade appeared to have a distinctive focus relating to what was occurring nationally and internationally. In the 1920s, the principalship was concerned with teaching which centered on values. Principals were responsible for making sure that schools supported family values. In the 1930s, the focus of the role changed from schools supporting family values toward a more technical management of schools. The involvement of our country in World War II impacted education. During the 1940s and 1950s, Lucas (2001) found there was a stronger emphasis placed on patriotic values and education in a democratic society. The launch of Sputnik by the Soviet Union in the late 1950s established a new focus on the quality of education. During the 1950s and 1960s schools stressed excellence, particularly in math and science. The 1970s ushered in a variety of social problems which distracted principals from an academic direction. Principals
needed to address issues of substance abuse, the increase in teen pregnancy, tension among the races, and resistance to traditional values in general.

In the 1980s, there was increased awareness that the United States was experiencing economic competition from foreign countries. In 1983, *A Nation at Risk* (National Commission of Excellence in Education, 1983) was released. It stressed the importance of schools refocusing themselves on academics in order for our students to be prepared for the workplace. This led to an increased role of the federal government in educational reform through performance standards, high-stakes testing, and accountability measures. This greatly changed the role of the principal. During the latter part of the 1980s and 1990s, the principal was no longer viewed as a manager, but was expected to be the instructional leader of the school. In 1989, W.F. Smith and Andrews (1989) described an instructional leader as one who gives curriculum and instruction the highest priority, and identifies and uses resources to achieve those goals. Instructional leaders create a culture of high expectations for high academic achievement for all students. They are committed to the goals of the school and district. They monitor student progress and teacher effectiveness. They collaborate effectively with staff members and other groups when making decisions.

The present system of American education continues to focus on instructional leadership, but the principal is expected to be a leader of leaders. Lezotte (1992) states that there is recognition that a “principal cannot be the only leader in a school. With the democratization of organizations, especially schools, the leadership function becomes
one of creating a ‘community of shared values’. Expertise is distributed among many, not concentrated on a single person.”

Principal preparation programs need to be designed to meet the challenges of the 21st century. Current federal legislation, such as the No Child Left Behind (NCLB) Act (2001), state that schools are accountable for the academic progress of all students, specifically in the areas of reading and math. This is based on research which indicates that students are not achieving in reading as expected. Yell & Drasgow (2005) cite the National Assessment of Educational Progress Report for 2002. Approximately 68 percent of the fourth graders in our country score below the proficient level. This means that only about a third are reading at or above the expected level. Test data documenting progress are disaggregated and reported for students who are economically disadvantaged, disabled, limited English proficient, as well as by gender, race and ethnicity. There are sanctions for schools which do not make adequate yearly progress (AYP) towards proficiency.

The Individuals with Disabilities Education Improvement Act (IDEIA) (2004) is federal legislation particularly relating to students with disabilities. It fully supports the accountability measures of NCLB by tying school funding to implementation of the accountability mandates of NCLB. IDEIA (2004) also requires that every student with a disability must participate in all state-wide and district assessments. Principal preparation programs must develop people who can meet the current expectation of higher levels of learning for all children.
My experiences as a P-12 educator piqued my interest in exploring the preparation of building leaders specifically for special education. As a general education and special education teacher, I observed the amount of time the principal spent participating in the individualized education program (IEP) meetings required for each participating student with a disability. My years spent as one of the supervisors of special education programs for a school district also allowed me to examine the involvement of principals. This included the processes involved in the identification, placement, and service of students involved in special education. Expectations greatly increased when I became a building principal. Laws and legislation which impacted students with disabilities were changing continually. It was important to stay abreast of these changes and make necessary adjustments to the processes within the school. I was responsible for selecting and evaluating personnel. Whether these staff members had licensure in a general education area or special education, all would be working with students identified with disabilities. It was important to identify the needs of staff in order to provide ongoing professional development, and the structure of time to do so. It was necessary for me to have systems in place to monitor student progress, identifying students who were not meeting expectations, and working with teachers to provide appropriate curricular, instructional, and behavioral interventions with integrity. Our building qualified for Title I funding through NCLB to examine our reading program and identify appropriate professional development for staff in order to provide effective curriculum and instruction to our primary grade (kindergarten, first, second and/or third) students. We recognized that the research indicated early identification and interventions for students
who were struggling in reading were very important. Processes were instituted for students who did not respond to interventions for possible identification and provision of services. Collaboration with parents throughout these processes was critical.

I knew that my experiences in special education prior to becoming a building principal were very beneficial to my effectiveness in that role. I wondered how those with limited or no experiences negotiated these demands. I also considered the areas in which principals had knowledge and how they had attained it. Finally, I questioned which areas of special education principals would believe were most valuable to principal preparation.

Research exploring principals and special education is limited at best. The majority of studies are general in nature, typically looking at overarching areas associated with building leadership. However, the issue of knowledge of and preparation for special education is a common need found within these studies.

Principals do not feel adequately prepared in the administration of special education programs, concluded Goor, Schwenn, and Boyer (1997). Principal preparation programs usually focus on management of the school and supervision of instruction. “This background usually does not include comprehensive knowledge of the characteristics of special learners and procedures for insuring that these learners’ needs are met and their rights protected. Yet, principals find themselves having to respond regularly to these situations” (Goor, Schwenn, & Boyer, 1997).

In 1992, Aspen presented the results of a study regarding principals’ attitudes toward special education at the 1991 Council for Exceptional Children convention.
Aspen (1992) found that more than 40 percent of principals had never been required to take a course in special education. More than 85 percent of principals believed that formal education in special education is needed to be successful as a building principal. More than 80 percent had a moderate to very high interest in receiving training in special education. Even though they lacked training in special education, more than 75 percent had responsibility for supervising special education teachers in their schools. Aspen concluded that most principals do not have the knowledge of the instructional and programmatic needs of children with disabilities, indicating the need to train school administrators in special education.

The conditions and challenges of principals in Virginia were the focus of a study by DiPaola and Tschannen-Moran (2003). A total of 1,543 principals and assistant principals were surveyed to review their experiences and perceptions of the increasing shortage of people interested in principalship. Results were categorized under five headings: preparation for the principalship; conditions of employment; problems or issues in the field; the changing role of the principal; and supply and demand.

Ninety percent of principals identified “special education law and implementation” as a significant or highly significant problem or issue in organizational management. Related to this, “legal issues” and “non-academic student behavior” (discipline, drugs, etc.) were also determined to be significant or highly significant challenges. When making a comparison to five years ago, 30 percent of those surveyed said that they were spending more time on special education. The principals identified
the leading need for professional development as “special education law and implementation.”

In their study, DiPaola and Tschannen-Moran (2003) concluded that the responsibilities of the principal have increased considerably. As instructional leaders of schools, principals are expected by the public to make sure all students meet high standards, including the students with disabilities.

Lasky and Karge (2006) studied the formal education of principals and additional experiences they have had related to students with disabilities. Principals from school districts in southern California were asked to be involved. There were 205 principals from 28 different districts who participated in the survey. The principals were asked, “How much direct experience did you have with children with disabilities during your formal administration credential course work?” Of the 201 participants who answered this question, 36.3 percent had no experience, 35.8 percent indicated they had some experience, 14.4 percent stated they had moderate experience, and 13.4 percent reported they had “lots of” experience.

Principals were also asked to evaluate the number of hours per week they spent on special education concerns compared to previous years. Seventy-five percent indicated that the amount of time had increased. A majority of respondents reported they had basically learned about working with special education students on the job. They stated that coursework was important to their growth as a principal. Results indicated that 78 percent of the principals felt their training did not prepare them to work with children with disabilities. These results clarified a need for more education of principals in special
education during principal preparation programs. On-going training is also indicated with continual changes in special education rules and procedures.

A study was conducted in 2006 by Wakeman, Browder, Flowers and Ahlgrim-Delzell to identify the knowledge of secondary principals regarding special education issues. There were 362 participants, representing all 50 states and the District of Columbia. They were randomly selected members of the National Association of Secondary School Principals (NASSP). The results bolster the perceived need for more principal training.

Principals were asked to report their education and experiences with students with disabilities. The majority of principals (92.0%) did not have a license in special education. The most common number of special education classes taken was zero (57.1%) or one (16.9%) at the undergraduate level, zero (45.9%) or one (27.8%) in their administrator education program, and zero (66.4%) or one (12.5%) in other graduate school. Principals also reported that they received a little (47.8%) or some (37.6%) information about special education in their principal licensing program. Minimal information regarding special education was acquired by principals in their administration licensing program. It appears that principals primarily learn on the job and through contact with district personnel who specialize in special education.

Petzco (2008) described the results of a survey of first-, second-, and third-year principals and assistant principals. The 73 participants, who were attending a 2007 national principals’ association conference, were asked to identify the knowledge and skill areas they believed to be critical to their success. The skills necessary for the
administration of special education programs and student services need additional focus. The principals indicated that these areas are very important, but the preparation in administrative programs is minimal. Specifically, new principals place the importance of this knowledge in the top half, while the level of preparation they experienced was placed in the bottom quartile. Petzco (2008) concluded that reform of these programs is clearly needed. Principal preparation programs should survey the needs of new principals, and then make adjustments to their programs to effectively meet the changing needs of principals.

It is evident through these research studies that principals do not feel adequately prepared in the administration of special education to students with disabilities. Findings indicate that principals need formal preparation in this area in order to be effective, and that the coursework in preparation programs is limited at best. Most are learning on the job. Additionally, the amount of time spent on special education is increasing. These studies make it clear that there is a problem, however in none of the studies do principals identify and prioritize the specific elements of special education that are important to their work.

Based upon the lack of comprehensive research, the purpose of this study is to explore the perceptions of Ohio principals in building which include at least one primary grade level regarding their knowledge of their knowledge of specific elements relating to special education. Additionally, they will distinguish which elements are important to their effectiveness as a principal. Finally, the relationship between the knowledge of
elementary principals to school demographics, experience, and preparation for special education will be described.

Significance of the Study

This section provides an analysis of the significance of the study, including the audiences that might use the results, how each audience might use the results, and how the results might further inform the practice of preparation of principals. The results of this research could benefit several different groups. With the on-going modifications and changes in special education there is potential for each of these groups to use the information to improve the preparation of principals.

Colleges and universities which have principal preparation programs will be able to use the results. These institutions want to effectively meet the needs of the people they are preparing. Results would provide specific feedback concerning the actual understandings research participants hold. Changes could be made in the content of coursework if needed.

School districts will also gain from the results of the study. There are many demands of principals. They are being held accountable for the progress of all students. It is important that principals are current in their knowledge. Superintendents and board members will be able to use the results of the study to seek opportunities to provide professional development for principals.

The Ohio Association of Elementary School Administrators (OAESA) and the Ohio Association of Secondary School Administrators (OASSA) are professional
associations which serve elementary, middle, and high school administrators. One of the services they provide is professional development opportunities for the members of the organizations. The OAESA and OASSA will gain insight into the current needs of principals as a result of the study. This will be an opportunity to develop a program for them.

Finally, the Council for Exceptional Children (CEC) is a professional organization which focuses on improving the education of individuals with exceptionalities. Professional development opportunities, such as web seminars and workshops, are available for teachers and administrators. CEC will be able to use the results of the research to create professional development opportunities for principals.

Research Questions

1. What are the perceptions of Ohio principals in schools which include at least one primary grade level regarding their knowledge of specific elements relating to special education?

2. Do significant differences exist in the perceptions of Ohio principals in schools which include at least one primary grade level regarding their knowledge of specific elements relating to special education according to demographic characteristics?

3. What are the perceptions of Ohio principals in schools which include at least one primary grade level regarding the importance of preparation for specific elements relating to special education?
4. Do significant differences exist in the perceptions of Ohio principals in schools which include at least one primary grade level regarding the importance of preparation for specific elements relating to special education according to demographic characteristics?

5. Is there a relationship between the perceptions of Ohio principals in schools which include at least one primary grade level regarding their knowledge of and importance of preparation for specific elements relating to special education?

6. What is the reliability of the survey questionnaire?

7. What types of comments or additional information did the respondents provide?

Constitutive Definitions

Definitions of the following terms are provided for clarification of their use in this study.

**ADEQUATE YEARLY PROGRESS STATUS** was self-reported as the current adequate yearly progress (AYP) status of each participant’s school in terms of: met, safe harbor, needs improvement, or not applicable.

**DISABILITY CATEGORIES** were self-reported describing the students with disabilities currently served in the each participant’s school in terms of: autism, emotional disturbance, cognitive disability/ mental retardation, deaf-blindness, hearing impaired/deaf, learning disability, multiple disabilities, orthopedic/ physical disability,
other health impaired, speech/ language/communication disorder, traumatic brain injury, and/or vision impaired/blind.

**GRADE LEVELS** were self-reported as the grades levels currently included in each participant’s school.

**INITIAL PRINCIPAL LICENSURE** was self-reported as the state in which the participants earned their original licensure to be a principal.

**PERCENTAGE OF STUDENT ENROLLMENT** was self-reported by participants as the current proportion of the student population in their school which has been identified with a disability.

**PERCENTAGE OF WORK DAY** was self-reported by participants as the proportion of their work day typically spent on elements of special education at the time the questionnaire was completed.

**PERCEPTIONS OF IMPORTANCE** were the numerical values assigned by participants as responses to questions on the questionnaire regarding the importance of preparation for specific elements of special education in terms of: critically essential, essential, needed, useful, minimally useful, or of no importance.

**PERCEPTIONS OF KNOWLEDGE** were the numerical values self-reported by participants as responses to questions on the questionnaire regarding their knowledge of specific elements of special education in terms of: expert, considerable knowledge, general knowledge, minimal understanding, recognize only, or no familiarity at all.

**SIZE OF SCHOOL** was self-reported as the current enrollment in each participant’s school at the time the questionnaire was completed.
SOURCES OF INFORMATION were self-reported as individual information or experiences of participants at the time the study was conducted in terms of: a family member with a disability, an acquaintance with a disability, coursework in special education during principal preparation program, coursework in special education during undergraduate program, experience as a general education teacher with students with disabilities included, experience as a special education administrator in a school district, experience as a special education teacher, graduate degree in special education, information sought out on your own, professional development provided by the school district, undergraduate degree in special education, while principal, consulted with personnel within the school district who were knowledgeable about special education, and/or other.

TYPE OF SCHOOL DISTRICT was self-reported as the current classification of each participant’s district as a city, exempted village, or local school district.

YEARS OF EXPERIENCE AS A BUILDING PRINCIPAL was self-reported by participants as the number of years completed as a building principal at the time the study was conducted.

YEARS OF PROFESSIONAL EXPERIENCE IN THE PUBLIC SCHOOLS was self-reported by participants as the number of years completed as both a teacher and building principal at the time the study was conducted.
Limitations of the Study

The following provides an account and explanation of the limitations brought about by the procedures of the study. These limitations may negatively affect the results or the generalizability of the results.

The focus of the study was limited to describing the perceptions of the respondents. Perceptions are based on attitudes and opinions. The study was a cross-sectional survey, through the use of a questionnaire, which concentrated on a single point in time. The perceptions of the respondents may differ from one point in time to another.

Although the validity and reliability of the questionnaire were established, the results of the study were likely affected by the respondents. The respondents may have misunderstood the directions or misinterpreted the questions. Also, the respondents may have given socially acceptable answers or given answers they think the researcher wanted to hear. Lastly, respondents may not have had the correct information, or they may have intentionally not told the truth.

Questions asked to gather perceptions were developed from the elements of special education as identified and reviewed by this researcher. The data for the foundation of the study were essentially produced from the research on special education rather than from research regarding principals. There may have been other questions which should have been asked to gain a thorough representation of the perceptions of those participating in the study.
The study was descriptive in nature and did not establish cause and effect relationships. The findings of the study are not generalizable to principals in schools with at least one primary grade level throughout the United States. The findings are limited to principals of schools with at least one primary grade level in Ohio. Also, the findings are only generalizable to city, exempted village, and local public school districts, not other types of school districts.

Delimitations of the Study

The following provides an account of what is and what is not going to be investigated in the study. The study sought to describe the perceptions of principals with at least one primary grade level in Ohio’s city, exempted village, and local public school districts. The study only focused on this position and these types of districts. The perceptions examined in the study were those related to their knowledge of and preparation for specific elements of special education. The study was not designed to generate hypotheses to be confirmed or denied. The purpose was to describe what was.

Survey methodology, through a questionnaire, was used to collect relevant data for the study. Several assumptions were made. It was assumed that 1) perceptions can be measured, 2) respondents understood the directions given on the questionnaire, 3) respondents understood the questions given on the questionnaire, 4) respondents were conscientious in completing the questionnaire, 5) statements on the questionnaires had the same meanings for all respondents, and 6) the questionnaires developed were appropriate measures for the study.
Data collected were analyzed in terms significant differences within each group according to different variables. Data were analyzed in terms of information gathered, at the time the questionnaires were completed, regarding respondents’ type of school district, current adequate yearly progress (AYP) status of the school relating to students with disabilities, size of the school, percentage of the student enrollment of the school identified with a disability, the disability categories which describe students who are currently served in the school, where their principal licensure was earned, sources of knowledge regarding special education, number of years of professional experience completed in the public schools, number of years of experience as a building principal, and percentage of work day spent on specific elements relating to special education.
Chapter 2

REVIEW OF THE LITERATURE

Theoretical Framework

Societies throughout human existence have recognized the presence of disability. The views and responses to disabilities differ according to time period and culture. Osgood (2008) finds that in the past, persons with significant and apparent disabling conditions have been demonized, deified, ignored, persecuted, protected, or isolated and exterminated. The belief of if or how to educate persons with disabilities has continually changed throughout time.

There are currently several different views of learning as it relates to students with disabilities. At this point in time, schools are charged with educating all students, and principals, as the leaders of their building, have a lot of power in determining what the education of students with disabilities looks like. Their level of formal preparation and experiences strongly influence their beliefs about students with disabilities. This in turn, impacts which view of learning is established in the culture of the school.

Medical Model View of Disability

One of the first theoretical frameworks of how disability was viewed was the medical model. This model originates from positivist science. According to Kauffman
many of the original leaders in special education were physicians, such as Samuel G. Howe, Jean M. Itard, Edouard Seguin, and Maria Montessori. Further, Brown, Hamner, Foley & Woodring (2009) explain that the medical model views disability as the resulting functional limitation of a physical condition of the cells, organs, or body. It discriminates between what is considered ‘normal’ and any condition that is a deviation from normal.

The medical model focuses on the person’s impairments or disability by assigning labels, rather than in terms of needs. It looks at the restrictive effects of disability, and it sees disability as something that needs a regimen of treatment or to be fixed. Additionally, Stalker, Baron, Riddell & Wilkinson (1999) assert that this model equates disability with “chronic illness, ascribing a sick role to the individual and focuses on “dysfuntion” (p.8) which is perceived as a tragic lifelong condition.

Looking back the past 100 years in the United States, the belief that people with disabilities, especially those labeled with moderate to severe challenges, needed treatment or to be fixed was prevalent. Criteria were developed to determine who was separated or excluded from regular classrooms or schools. According to Osgood (2008), in the early 1900’s identification of children with disabilities was subjective, and typically included a medial component. An example of this was the work of Dr. Arthur Jelly, a Boston physician. Dr. Jelly would receive student referrals from school teachers and principals. He would examine and make the determination of whether the child would require placement in a special class.
The first IQ test was developed in 1905 by a psychologist, Alfred Binet. He was commissioned by the French government to develop a more precise determinant of cognitive capabilities. The test had children do tasks such as follow directions, replicate patterns, identify items, and place things in order. Those that were considered “inferior” would be placed in special schools so they would not disrupt the education of children with “normal” intelligence.

In the book, *The Almosts*, Helen MacMurchy (1920) makes a plea for people to give the ‘feeble-minded’ a chance. She contends that it is easy to make them “happy, safe, and useful” (p.174). Further, she maintains that we must recognize “mental defectives as children, who must receive the training, protection and care - in one word, the home that they need, so that they do not mingle with the general community” (p. 177).

Ferguson (1997) described specialized institutions created during this time period for those with moderate to severe cognitive disabilities to provide a service to families and communities. These institutions, for the most part, prided themselves in being almost completely self-sufficient. The “inmates” grew their own food and made their own clothes, but they were not paid for their work. It was important for this treatment to appear to “fix” them. Publicity photographs were taken showing the people looking “normal” as they were hard at work, as well as participating in typical activities. Despite the intent to demonstrate normalcy, the beliefs are very clear. One of the photographs shows a group of men working on a farm. The quote below states, “The simple life for simple folk.”
Separation of students with disabilities from their typically developing peers continued to be the standard in schools until the passage of Public Law No. 94-142, The Education for All Handicapped Children Act, in 1975. It guaranteed a free and appropriate education in the least restrictive environment for all children with disabilities. With the passage of the Act, all children with disabilities were assured equal access to public education. This was considered a major achievement for parents, families, and other advocates for the disabled.

Later renamed the Individuals with Disabilities Education Act (IDEA), P.L. 94-142 originally incorporated many of the beliefs of the medical model of viewing disability. Hulett (2009) describes the assessment model delineated by IDEA as very traditional, following a referral-assessment-placement sequence. This resulted in a high percentage of those being referred by teachers routinely being identified with a disability after going through a battery of tests. No interventions prior to referral were indicated or required. Furthermore, the definition of a child with a disability is a straight listing of 13 diagnostic categories, or labels. Specific percentages and scores on required types of tests serve as the basis for separating those with, from those without, a disability.

In the time following implementation of IDEA, the information from testing was used to develop an action plan or blueprint, known as an individualized education program (IEP), for each student with a disability. Similar to the medical model, the IEP focuses on the weaknesses of the student. Based on these identified weaknesses, goals and objectives, along with evaluative measures, are identified. The educational setting, also known as the least restrictive environment (LRE), is determined. Not unlike with the
medical model, the LRE was historically a separate classroom or facility. The students, even those with mild learning or physical disabilities, were viewed as having needs requiring treatment, and as incapable of benefiting from the general education classroom. If included, general education teachers were not expected to provide adaptations.

A school in which the building leadership holds the medical model view of disability will exhibit some distinguishing characteristics. The focus would be on weaknesses, so a child with a disability would be referred to with disability-first language instead of people-first. A very simple example of this distinction would be referring to “the learning disabled student”, instead of “the student with a learning disability”.

According to Stalker et al., (1999) the professional’s role is seen to be a cure, treat or improve the physical or functional problems of the students with disabilities. This role would necessitate that a child who is struggling academically or behaviorally in the general education classroom be referred for assessment without the implementation of intervention strategies because a disability needs to be identified. The circumstances relating to family and life situations, such as attendance or mobility, which impact achievement, would not necessarily be taken into consideration.

In this environment, it would be important to label the student in order to treat the student. This would most likely take place in separate classrooms designated for these students. Intensive curricular and instructional programs would be sought which claim to make drastic improvements in the academic or behavioral progress of the students. LRE would involve art, music, physical education, even with mild disabilities. Overall, the
focus on weaknesses and the identified label would overshadow the strengths of the students with disabilities.

*Behavioral View of Learning*

According to behaviorists, learning is viewed as a “neurological process that arises from experience and is inferred from changes in the organism’s behavior” (Hall, p. 14). Woolfolk (2004) expands this view by describing learning as not just a change in the individual’s behavior, but also in their knowledge.

The behavioral view of learning is most often associated with Thorndike and Skinner. Thorndike is known for his *Law of Effect*. He found that as individuals have consecutive experiences in completing a task that effective responses occurred more frequently, and ineffective responses decreased. Successful responses were strengthened, while unsuccessful responses were weakened. Skinner used the terms reinforcement and punishment as basic components of learning. Reinforcement is considered a consequence that will increase the likelihood of an occurrence of a behavior, while punishment is considered a consequence that will decrease the occurrence of a behavior.

Reinforcement and punishment are further described in terms of being positive or negative. The purpose of reinforcement is to increase desired behaviors. Positive reinforcement occurs when a response is followed by a stimulus, which is considered pleasurable, resulting in an increase in the frequency of the behavior. An example would be by giving a child extra time on the computer for completing her class assignments. Negative reinforcement occurs when a response is followed by the removal of a stimulus, which is considered unpleasant, also resulting in an increase in the frequency of the
behavior. For instance, during a fire drill the very loud alarm sounds until all students have exited the building. Once they are in their designated area and accounted for the alarm is turned off.

The purpose of punishment is to decrease undesired responses. Positive punishment occurs when a response is followed by a stimulus resulting in a decrease in that behavior. An example of this would be a physical education teacher assigning extra pushups for students who are not wearing appropriate clothing to exercise. Negative punishment occurs when a response is followed by the removal of a stimulus, resulting in a decrease in that behavior. For instance, a teacher might take away a cell phone from a student texting in class.

A schedule of reinforcement is defined as the practice for deciding when responses will be reinforced. Every response is reinforced with continuously. Only some responses are reinforced with intermittent or partial reinforcement. Both of these approaches can be successful in getting desired responses if effectively implemented. Extinction will occur if an individual is no longer reinforced for responses which had been previously reinforced. The behavior from the individual will eventually cease. For example, a teacher requires students to raise their hand before speaking. The teacher strictly reinforces this the first week of school. After that, she never addresses it again, allowing the students to call out answers. The likelihood of students raising their hand before speaking would be unlikely.

Woolfolk (2004) discusses the relationship among antecedents, cueing and prompting to influence behaviors. Antecedents are described as events which precede a
response or behavior. These provide information about whether the responses will result in a positive or negative outcome. Cueing is a specific antecedent used to get a specific desired response. An example would be that a teacher might want students to provide their name and date on all homework assignments. Prompting is used to assist students as they learn to appropriately respond to the cue. For instance, a teacher may post on a bulletin board a sequence of steps for students to use when heading homework assignments. Students should then be reinforced for appropriately using these steps.

Building leadership that holds the behavioral view of learning will structure the academic and behavioral programs within the school in specific ways. Clearly the person in charge, the principal will take a managerial approach. Goals for improvement would be based on specific behavioral objectives. This would include identifying the conditions under which the behavior is to be performed, naming the observable behavior desired, and the criteria specifying how well the behavior must be performed.

Woolfolk (2004) explains that in using the behavioral approach, acquisition of knowledge and skills is achieved through drill and guided practice. The teachers provide the information and the students learn it. Further, mastery learning is a common strategy used in the behavioral approach. Units of study are divided into sections. Students are required to master the content, typically at the 80 to 90 percent level, from one unit before moving on to the next. There could be the perception that students are rewarded for learning if not thoughtfully put into practice.

Behaviorally, there would be very clear building-wide system of expectations, rewards, and consequences. These would be posted throughout the building, and referred
to on a continuing basis. All teachers would be expected to implement them with integrity. Behavioral strategies, such as token reinforcement and response cost interventions, as well as individual contracting with students, would be implemented as part of this system. Effectiveness of reinforcement systems is strongly tied to consistent implementation of consequences contingent on student behavior (McGoey & DuPaul, 2000; O’Leary & Drabman, 1971). There is concern that students would simply be motivated by the extrinsic rewards instead of being motivated from within.

The behavioral approach to learning is prevalent in working with students with disabilities. The objectives on IEPs are written in behavioral terms. Teachers are required to document steps toward the attainment of these objectives in progress reports which are provided systematically throughout the year.

Typically special education teachers have strong preparation in the behavioral approach. Classroom systems of rewards and punishments are developed to meet the individual needs of students in an attempt to motivate them towards reaching their identified academic and behavior goals.

*Sociocultural View of Learning*

“While the medical model sees disability as nothing more than a biological condition that automatically produces social misfortunes, the social model makes the biological condition secondary to social conditions that oppress or liberate people with particular impairments” (Ong-Dean, 2005). Lev Vygotsky’s sociocultural views of learning are described by John-Steiner & Mahn (1996) as based on the theory that human activities occur in cultural contexts, are mediated by language and other symbol systems,
and can be best understood when examined in their historical development. Vygotsky delved into a variety of areas, including the psychology of art, language and thought, and learning and development. This included the education of children with disabilities.

Vygotsky explained that social interaction plays a critical role in the process of cognitive development. He believed that higher cognitive processes are socially learned before they are internalized by the child. At that point it becomes part of the learner’s development. He states that “every function in the child’s cultural development appears twice: first, on the social level, and later, on the individual level; first, between people (interpsychological) and then inside the child (intrapsychological)” (Vygotsky, 1978)

Further, Vygotsky discusses that when children begin an activity, they rely on those with more experience. This refers to someone who has a better understanding or higher ability than them. It can be an adult, such as a parent or teacher, or a peer. Through the interactions with others, the child learns the cultural tools, such as written language, number systems, various signs, and symbols. Over time the child takes on more and more responsibility for their own learning as they internalize the knowledge.

The term “zone of proximal development” (ZPD) was created by Vygotsky (1978) to explain the distance between the ability of a student to perform a task with guidance from an adult or collaboration with a skilled peer, and the ability of a student to solve the problem independently. The process of guidance or collaboration produces cognitive development as the child gradually develops the ability to perform without assistance. The term scaffolding, originally termed in the 1950’s by Jerome Bruner, a psychologist, is related to ZPD. The adult or skilled peer provides supports to facilitate
the child’s development. The scaffolds should be just beyond the level of what the child can do independently, as they build on prior knowledge. As the child’s abilities increase, the scaffolding is gradually withdrawn until the child is able to solve the problem independently.

Specifically looking at his beliefs regarding those with disability, Gindis (1995) states that “Vygotsky formulated a theoretical framework for the most comprehensive, inclusive and humane practice of special education” (p. 155). Vygotsky (1929) argued that a disability is perceived as an “abnormality” only when and if it is brought into the social context. He views disability as a sociocultural developmental phenomenon where compensation comes from socialization and cultural enlightenment. He explained that a defect varies psychologically in different cultural and social situations.

Vygotsky established the core concepts of the “primary disability” and “secondary disability,” and how they interrelate. A “primary” disability is an organic impairment due to biological factors. The impairment inhibits a child from mastering social skills, and gaining knowledge at an appropriate pace. A “secondary” disability is a result of the interaction between the primary disability and the social context. Secondary disabilities develop because primary disabilities often prevent a child from mastering cultural tools that are necessary for involvement in social interactions.

Vygotsky believed that the identification of a disability in a child should be from a point of strength, not weakness, which he termed “positive differentiation.” He referred to the traditional approach of evaluation of people with disabilities as an “arithmetical concept of handicap” because of its view of a child with disability as the sum of his/her
negative characteristics. He thought that traditional IQ tests had limitations and that
dynamic assessment offered better information by looking at processes such as: the
cognitive strategies employed by the child; type and character of mistakes; ability to
benefit from help provided by the examiner; and emotional reactions to success and
failure.

A school in which the principal possesses the sociocultural view of learning
exhibits a distinctive approach to students, especially those with disabilities. It shares
many of the characteristics that Larry Lezotte (1992) identified through Effective Schools
Research. The principal is viewed as a facilitator. All teachers feel capable of working
with all students. The school is a community in which collaboration among all is
important. Co-teaching, cooperative learning teams, and students helping one another are
emphasized. Skills to effectively work together are explicitly taught. The school has a
culture of high expectations for student learning. Teachers have the knowledge, skills,
and dispositions to implement inclusive instructional strategies, such as universal design
in planning and differentiation of instruction. A school-wide tiered Response to
Intervention (RTI) system is utilized to provide the level of support necessary so that the
needs of each child are addressed. Finally, student progress is frequently monitored
using more authentic assessments. The information from the results of assessments are
used for planning to continue individual student progress.
Legal Foundation for Educating Students with Disabilities

The *Brown v. Board of Education* (National Archives, 1954) decision greatly impacted, and continues to influence, policy surrounding special education. In that opinion, Chief Justice Earl Warren stated that, “In these days, it is doubtful that any child may reasonably be expected to succeed in life if he is denied the opportunity, where the state has undertaken to provide it, is a right that must be available to all on equal terms.” Through a series of legislative measures, advocates for people with disabilities were empowered to first address issues of access to education, then focus on issues of quality.

From the mid-1960’s to the mid-1970’s, the federal government passed a series of legislation which began to address the issue of access to education for students with disabilities. The first was P.L. 89-10, Elementary and Secondary Education Act (ESEA) of 1965. Murdick, Gartin, & Crabtree (2002) describe it as the “original federal commitment to improving education for elementary-and secondary-aged students identified as ‘educationally disadvantaged,’ a group of students having diverse educational needs, which also included children with disabilities” (p.21). Significant funding was tied to this to provide instructional materials, develop programs, create centers for educational research, and state educational agencies. In 1970, the ESEA was renamed Education of the Handicapped Act of 1970 (EHA). It combined grant programs related to children with disabilities.

Section 504 of the Rehabilitation Act of 1973 (Department of Education, 1973) is considered a civil rights law. It safeguards the rights of people with disabilities throughout their life. The Act includes provisions related to education and employment,
as well as access to buildings and transportation. It prohibits discrimination on the basis of disabling conditions by programs and activities receiving or benefiting from federal financial assistance. As to school specifically, children with a disability must be provided reasonable accommodations and modifications. However, the federal government does not provide additional funding for schools providing services to students with disabilities.

The Education Amendments of 1974 (Hulett, 2009) were amendments to the ESEA. The intent of the 1974 amendments was to mandate each state receiving federal funding for special education to determine a goal of providing comprehensive educational opportunities for all children with disabilities. It directly addressed: free appropriate public education (FAPE), procedural safeguards, and access to federal funds. The amendment acknowledged the rights of students with disabilities to an education. It also outlined due process procedures for parents and schools. Further, the concept of least restrictive environment was addressed.

In 1974 Congress enacted the Family Educational Rights and Privacy Act (FERPA). FERPA mandates privacy protection for all schoolchildren and their families. Hulett (2009) states that because of the often “sensitive and far-reaching information gathered about them, no group of children and their families is more in need of a strict code of privacy than students who are receiving or are being considered for eligibility to receive special education services.” In general, FERPA asserts that parents or eligible students have the right to inspect and review the student's education records maintained by the school. Parents or eligible students have the right to request that a school correct records which they believe to be inaccurate or misleading. Generally, schools must have
written permission from the parent or eligible student in order to release any information from a student's education record. However, FERPA allows schools to disclose those records, without consent, to certain parties meeting certain conditions.

P.L. 94-142, Education for All Handicapped Children Act of 1975 (EAHCA) dramatically expanded the role of the federal government in special education (Hulett, 2009). With the increase of federal funding, states were required to properly educate these students. Six principles were identified, and continue to be a significant part of the expectations set by the federal government. The first principle is zero reject. The purpose of this is to ensure that all students with disabilities, no matter the severity, will receive an appropriate education, based on their unique needs, at no cost to the parent. The second principle is nondiscriminatory multifactored assessment. Testing procedures and evaluation materials used to evaluate a child to determine if they have a disability must not be racially or culturally biased. The materials must be in the child’s native language, and must be administered by someone formally trained to do so. Procedural due process is the third principle. Policies and procedures are in place to protect the rights of children and parents throughout these processes. School personnel are expected to work with parents as a team. Parents or school districts disagreeing with placement or services have due process procedures to protect them. The fourth principle is parental participation. It focuses on the importance of the participation of parents in the development and implementation of the child’s education. Least restrictive environment is the fifth principle. Schools are required to offer a range of alternative placements for students with disabilities. The placement of the child is guided by the environment in
which the child can be successful with appropriate supports provided. The final principle is individualized education plan (IEP). An IEP is the blueprint, or plan, for the education of a child with a disability. The focus is on the goals and objectives, as well as the system for evaluating the progress of the child. School personnel involved with the child, along with the parents, develop this as a team. These six principles are used to guide districts as they address the specific needs of each student identified with a disability.

In 1986, there were reauthorizations and amendments to EAHCA. The Handicapped Children’s Act of 1986 expanded the due process rights of parents (Murdick, et al., 2002). It allowed for the recovery of legal fees to parents who prevail in lawsuits. The Education of the Handicapped Amendments of 1986 expanded the access of students with disabilities to an education. School districts were offered federal incentives if they adopted infant/toddler programs.

In 1990, amendments were added to the Education for All Handicapped Children Act. Yell (1998) describes the changes. “Person first language” was used instead of the term “handicapped”. Autism and traumatic brain injury (TBI) were added as categories of disability. A transition plan also became a required section of the IEP for students aged 16 and above. With this also came a change in name. It is now referred to as The Individuals with Disabilities Education Act (IDEA).

In 1990, P.L. 101-336, the Americans with Disabilities Act (ADA), was passed. The purpose, as described by Yell (1998) was to increase civil rights for persons with disabilities in the public and private sector. First, employers cannot discriminate against individuals with disabilities who otherwise meet job requirements. Reasonable
accommodations are to be made if necessary. The ADA also requires that all services, programs, and activities which are associated with the state and local governments be open and accessible to people with disabilities. This includes education, parks, and public transportation. Further, it requires that services provided by private entities which deal with the public, such as restaurants and theatres, be offered equally to people with disabilities. This entails either removing possible physical barriers or providing services in alternative ways. Finally, telecommunication services and closed captioning of public service announcements must be provided to people with speech or hearing disabilities. Telephone companies must also provide telecommunication relay services to people.

ADA expanded the provisions of Section 504 of the Rehabilitation Act of 1973.

The additional amendments added to the IDEA in 1997 represented the first time that the focus was not only on issues of access to education by students with disabilities, but now was looking at the quality of education they were receiving. Yell (1998) states that Congress found that the “implementation of the IDEA had been impeded by low expectations for students with disabilities, an insufficient focus on translating research into practice, and too great an emphasis on paperwork and legal requirements at the expense of teaching and learning” (p.64). As a result, Congress made significant modifications. Changes were made to the content and processes of the IEP, primarily by correlating learning goals to the general education curriculum. States were required to establish a non-threatening mediation system to resolve differences between parents and school personnel. Finally, language regarding the discipline of students was added.
In 2001, Congress passed the No Child Left Behind Act (NCLB). It was a reauthorization of the Elementary and Secondary Education Act of 1965 (ESEA). It drastically increased federal requirements and mandates on the states through its four principles: accountability for results; an emphasis on using research-based instruction; expanded local control and flexibility; and expanded parental options by increasing federal requirements and mandates on the state. “The most significant change was to require that all public schools bring every public school student up to state standards in reading and math within a certain period of time, thus closing the achievement gap based on race, ethnicity, and language” (Cohen, 2002). As part of NCLB, each state was required to develop academic standards. They were also mandated to provide a plan describing how they will move all children to proficiency by 2010-2014, reporting progress annually to the United States Department of Education and the public. All state education agencies (SEAs) and local educational agencies (LEAs) are required to provide a plan to increase the percentage of teachers in content areas who are considered “highly qualified” under the law. NCLB also emphasizes the importance of using scientifically based research in creating educational curriculum and instructional activities. Students in grades 3-8 and in high school are assessed annually. Districts are required to include at least 95 percent of all students in the assessments. Alternate assessment for those with severe disabilities is available for up to one percent of the population. Test data documenting progress are disaggregated and reported for students who are economically disadvantaged, disabled, limited English proficient, as well as by gender, race and ethnicity. According to Yell & Drasgow (2005), the intent of disaggregation by
subgroups of students is to make sure that schools will be accountable for improving the achievement of all of their students. There are sanctions for schools which do not make adequate yearly progress (AYP) towards proficiency. If a school does not reach AYP for two years, the school district must offer all students the option to transfer to a high-performing school within the district. Schools which do not reach AYP for three consecutive years must offer additional educational services to the low-income students.

Furthering the quality of education for students with disabilities, IDEA was amended again in 2004 to converge with the accountability measures of NCLB. Relating to “highly qualified teachers” (HQT), the Individuals with Disabilities Education Improvement Act (IDEA) 2004 requires that all special education teachers meet state licensing requirements for special education, and if they teach in a core content area they must meet the requirements in that subject. Special education teachers who teach in multiple content areas are afforded some flexibility, however new special education teachers who teach several subject areas are required to use a highly objective uniform state standard of evaluation (HOUSSE), determined by the state, to show competency.

The IDEA 2004 fully supports the accountability measures of NCLB. Specifically, school funding from IDEA to states for students with disabilities is tied to implementation of the accountability mandates of NCLB. Additionally, states are able to use funding from IDEA to provide professional development to LEAs or schools that have not met AYP for at least two consecutive years for the subgroup of students with disabilities. Finally, when addressing the NCLB requirement of assessment, the IDEA has more demanding requirements. While NCLB states that only 95 percent of students
must participate, the IDEIA 2004 asserts that every student with a disability must participate in all state-wide and district assessments. Appropriate accommodations and modifications, which are identified in each child’s IEP, must be provided.

Current Processes and Services in Special Education

School Personnel Serving Students with Disabilities

There are numerous school personnel who collaborate to develop, implement, and evaluate the program that students with disabilities receive, making certain that it is appropriate. Typically, these people include administrators, general education teachers, special education teachers, paraprofessionals, school psychologists, counselors, speech pathologists, occupational therapists, physical therapists, adaptive physical education teachers, and school nurses. Some of these personnel work directly with students on a daily basis. Others work with only several students at a time, while certain ones typically serve students only indirectly. Therefore, selecting effective staff, as well as knowing their roles and responsibilities in order to appropriately evaluate them is very important.

The three most common personnel serving students with disabilities are general education teachers, special education teachers, and paraprofessionals. General education teachers are central in the education of students with disabilities. They are typically the ones who initially recognize that a student may have a significant challenge. General education teachers are actively involved throughout the assessment and identification process. Once a student is identified, the general education teacher is responsible for implementing IEP goals. They also collaborate with parents of all students regarding
student strengths and challenges. Bryant, et al., (2008) adds that a successful general education program is the basis for “positive special education services because it uses evidence-based instructional procedures; supports students who struggle; prevents unnecessary referrals; welcomes students with disabilities; provides instructional adaptations to increase access to the general education curriculum; and follows through with individualized plans and interventions.”

Special education teachers are responsible for organizing the services a student with disability receives. They usually provide direct instruction to these students. There are many different roles that special education teachers may have, based on the need of the school or district. They may serve as a consultant. In this role, the special education teacher works with general educators to monitor the progress of students. Another role a special education teacher may have is that of a resource room teacher. The special education teacher works with students in a separate room for varying lengths of time depending on individual needs. Co-teaching is becoming an increasingly common inclusive practice. Friend & Cook (2007) describe co-teaching as when two or more educators, usually one general education teacher and one special education teacher, share the instruction for a single group of students. Further, they state that combining the strengths of the general education teacher and a special educator can create opportunities for all students. Another possible role of a special education teacher is that of an itinerant teacher. Itinerant teachers may work with children by traveling to various schools, their home, hospital, or other placements to provide their appropriate education. These varying roles require special education teachers with specialized knowledge and skills.
They need to know how to appropriately apply the legal requirements of IDEIA (2004). Special education teachers need expertise in effective curriculum and instruction. They need to know how to assess and monitor the progress of students, ensuring that they receive an appropriate education. Also, they need skills in order to collaborate effectively with administrators, school personnel, parents, and community agencies.

Bowe (2005) describes the role of a paraprofessional. He states that they are responsible for carrying out the activities that the teacher has assigned. They are also responsible to report progress and problems. Further, they assist the teacher in their work by gathering necessary materials. It is becoming more common that states are requiring some sort of certification based on completion of a training program and work at a 2-year institution of higher education. There are different roles that paraprofessionals may have. They may be assigned to work one-on-one with a student or a small group of students. They might also work with an entire classroom of students. Paraprofessionals might also be assigned to one or several teachers. In any role, effective collaboration between the teacher and paraprofessional is clearly important.

Parents have the right to participate in basically all parts of their child’s education program. Both general education and special education teachers have a responsibility to work with them. Turnbull (2011) explains that it is important to create a collaborative climate in which the family feels it is an essential and respected part of the team. Friend & Bursuck (2009) further this by describing the importance of understanding the perspective of parents who have a child with a disability. Communication with parents before, during, and after conferences is valuable. Responding to parents professionally in
team meetings, annual reviews, and other interactions at which you and they are present also encourages on-going effective collaboration. When decisions are being made regarding a student, the best interests of the student and the family must be represented. They can provide important family history and information on what has worked effectively in the home to address academic and behavioral concerns. Parents can be strong advocates of schools.

Identification Procedures and Services in Special Education

Children with moderate to severe intellectual, physical, and sensory disabilities are typically identified when they are very young. Those with mild communication, learning, and behavioral disabilities frequently are not identified until they encounter problems in school. General education teachers typically have the most knowledge about their students because they have the most contact with them. Therefore, they are an important factor in determining whether a student in their class could have a disability.

Through the careful monitoring of student progress, general education teachers are able to identify the strengths and challenges of their students. When examining a particular academic or behavioral challenge of a student, Friend & Bursuck (2010) explain that the general educator begins by clarifying the nature of it. The teacher decides whether it is an on-going problem, and if it differs significantly from the other students. These concerns should be discussed with the parents so their perspective can be included. Simple interventions are then implemented, and the results are documented. If the intervention works, then it is continued. If not, the general education teacher
usually begins the process of requesting that a student be assessed for the possibility of a disability.

Based on initial interventions, the teacher may meet with an intervention assistance team (IAT). Bryant, Smith, & Bryant (2008) clarify that the IAT makes certain that the student has received high-quality instruction and supplementary instructional support if needed. During this part of the process, the IAT must become convinced that neither inadequate teaching or additional factors, such as the need to learn the English language, explain the student’s poor performance. Further, Baher, Fuchs, & Fuchs, (1999) explain that the key reasons of implementing prereferral interventions are to evaluate the student’s strengths and challenges and offer further support to the student or teacher so that the student is able to achieve without the requirement of a formal evaluation for special education services.

Response to Intervention (RTI) is another process used by school districts to determine whether a student who is struggling academically or behaviorally would benefit from more focused or concentrated instruction. Klotz & Canter, (2007) describes RTI as a process of ongoing monitoring of a student’s progress and for the use of high-quality, research-based instruction and behavioral support. RTI is the systematic use of progressively more concentrated, research-based interventions as a means for determining whether a disability is present. It is centered on the supposition that approximately 75-80 percent of students will be able to learn if they receive high-quality curriculum and instruction. About 15-20 percent will gain from moderately intensive instruction, and the remaining 5 to 10 percent will need highly concentrated instruction,
and perhaps special education services. When implementing prereferral or RTI strategies it is important to discuss concerns with and gather input from parents.

If the IAT determines that interventions are not successful, a multidisciplinary team (MDT) follows federally established special education referral and assessment steps. This process includes the completion of a multifactored evaluation. Additionally, the parent, the Ohio Department of Education, or another public agency may ask for an evaluation (Ohio Department of Education, 2010). Within 30 days of receiving a request for an evaluation, the school district must get signed consent from a parent if they too suspect the child has a disability.

School personnel involved in the evaluation process are determined by the specific challenges of the student. The Ohio Department of Education (2010) explains that this may include: health; vision; hearing; social and emotional development; general intelligence; academic performance; communication abilities; motor abilities; and/or achievement levels. The team has 60 days from the date of consent to complete their evaluation team report (ETR) (ODE, 2010). Then they meet to make a decision about the need for special education.

If the student meets the federal criteria to receive special education services, an individualized education program (IEP) is written, implemented, and monitored. According to the Ohio Department of Education (2010) the initial IEP meeting must take place within 30 days of the determination that the child qualifies for special education services. Further, the IEP team must include the parent, the child (when appropriate), at least one of the child’s general education teachers, at least one of the child’s special
education providers, a representative of the school district, and a person who can describe how the ETR results will affect instruction.

The parents of the child are also involved throughout all processes. They must be informed of their rights and of the proposed action, consent to the evaluation, and be provided with copies of the ETR and IEPs. Turnbull, Turnbull, Erwin, Soodak, & Shogren (2011) emphasize that collaborating with families throughout the referral and evaluation process deepens the team’s understanding of the student.

Bowe (2005) explains that IEPs are meant to serve as planning guides for the student with special needs. IEPs give guidelines for educators for the daily education of the individual. When an IEP is created, it incorporates required information such as the student’s present level of functioning, goals, LRE, services and providers, and criteria for evaluation. Depending on the needs of the individual the IEP may include a behavior intervention plan. Also, students 16 years and older require a transition plan. The IEP must be reviewed at least once a year, and the student must be reevaluated at least every three years by a MDT. Turnbull, et al., (2011) reemphasize the importance of parental involvement. Parents are required participants of the IEP team. IDEA acknowledges that parents are valued, integral members in the development of their child’s IEP. It does this by requiring that educators document parental involvement.

It is important that parents and school personnel agree on the features of a student’s special education program and services. If there are differences, there are processes are available to resolve them both informally and formally. Friend & Bursuck (2009) explain that if the disagreement cannot be resolved informally, due process
procedures, including mediation and dispute resolution sessions, are employed to make sure that the student receives a free appropriate public education in the least restrictive environment. Additionally, Bowe (2005) indicates that due process not only makes certain that all involved in the student’s educational success have a say, but also speaks to mandated procedural requirements. IDEA guarantees the right to an impartial hearing if procedures delineated by IDEA are not followed and parents or schools believe that programs do not meet the needs of the student.

*Discipline of Students with Disabilities*

To function effectively, schools must have expectations which guide student behavior. If students break valid school expectations, they should be held responsible. The courts’ acknowledgement of the significance of school authority over student behavior dates back to the English common-law belief of in loco parentis (i.e., in place of the parent). The principal and the teachers have the authority and responsibility to educate and monitor student behavior to achieve educational goals. Ryan, Katsiyannis, Peterson & Chmelar (2007) encouraged principals to create a school climate which is supportive of positive behavior, builds positive interactions, and pays close attention to behavior problems, keeping them from increasing to levels requiring disciplinary consequences.

The application of disciplinary processes with students with disabilities has proven to be a complicated and contentious matter. Even though Public Law 94-142 (United States Department of Education, 2008), Education for All Handicapped Children Act (1975) is thorough, until the Individuals with Disabilities Education Act
Amendments of 1997 (United States Department of Education, 2008) there were no distinct federal guidelines concerning the discipline of students with disabilities. The consequence of this deficit of regulation and guidelines was doubt among school administrators and teachers concerning correct disciplinary processes.

According to Bateman & Bateman (2001) most students with disabilities receive proper support through the classroom management system and the school-wide discipline system implemented by principals and teachers. In 1988, *Honig v. Doe* (United States Supreme Court Center, 2008), the Supreme Court ruled that typical disciplinary procedures may be used with students with disabilities. These disciplinary procedures do not change placement and are typically not limited by the courts. Considerable limitations occur with specific kinds of discipline which could result in a unilateral change in placement. To determine which disciplinary procedures are legal and which are not, Yell & Peterson (1995) placed them into one of three categories: permitted, controlled, and prohibited.

Students with disabilities are not exempt from disciplinary procedures in school. However, McLaughlin & Nolet (2004) explained that an outcome of the legal requirements has been a dual discipline system in which the same transgression may result in the principal giving one set of consequences for students without disabilities and one for students receiving special education services. As long as the procedures are not misused or applied in a biased fashion, principals are permitted to use practices such as censure, detention, restriction of privileges, in-school suspension (as long as the students’ education is continued), and out-of-school suspensions (no more than 10 days).
Disciplinary practices which basically change a student’s placement are not legal if not consistent with the procedural safeguards given students with disabilities by IDEA. Examples of this would include suspensions over 10 days and expulsion.

When analyzing whether to employ a long-term suspension or expulsion or not, Murdick, Gartin & Crabtree (2002) explain that the principal needs to gather the student’s IEP team and other qualified personnel to decide the correlation between the student’s inappropriate behavior and the disability. This is referred to as a manifestation determination review. The student cannot be expelled if there is a correlation. The student may be expelled if the team concludes that no correlation exists. Even if an expulsion follows a determination of no relationship and is done following procedural safeguards, there cannot be a termination of educational services.

School and district administrators cannot prohibit a student with disabilities from attending school, no matter the degree of danger or disruption without following the procedural safeguards. However, a temporary restraining order (TRO) may be secured by school districts from the court to have the student removed from school. If students with disabilities bring weapons to school or they use, possess, or sell illegal drugs, school officials may unilaterally remove them to an interim alternative setting for 45 school days. During this time the IEP team is required to convene to determine the proper steps.

*Supporting Inclusive Practices*

Federal law requires that a continuum of settings must be available to meet the unique needs of each student with a disability. However, since the passage of P.L. 94-142 (1975), the meaning of LRE has continually evolved. In the past, LRE meant that
students with disabilities would minimally participate with their peers in the general education setting. Their exposure, at a minimum, might be for strictly non-academic activities such as art, music, and physical education. Additionally, little effort was made to provide adaptations if they were included for academic classes.

NCLB (2001) has had an important impact on the inclusion of students in the general education setting. Students with disabilities are required to be exposed to and assessed on the general education curriculum. To achieve this, students with disabilities should be more fully integrated into the general education classrooms. Accommodations and modifications for students with disabilities can be provided successfully in general education classrooms when teachers are equipped to work with these students, and the necessary supports are provided.

One of the most prevalent strategies to promote progress with the general curriculum is differentiated instruction. Tomlinson (2003) describes this as when a teacher employs more than one instructional methodology, increasing students’ access to instructional materials in a variety of formats, increasing test-taking and data collection options, and adjusting the difficulty and type of content taught. An example of curricular differentiation would be increasing or decreasing the number of spelling words for certain students. Using graphic organizers is an example of instructional differentiation. Finally, an example of differentiation in grading practices would be reducing the number of choices on a multiple choice assessment.

In order to increase the achievement of all students, effective collaboration among school personnel is essential. Successful collaboration necessitates a supportive
environment (Pugach & Johnson, 2002). Principals play an important role in fostering collaboration (Rea, 2005). They can provide the needed supports by making it a school goal and by providing effective on-going professional development.

The National Staff Development Council (NSDC, 2001) has identified standards for staff development based on extensive research with the goal that “every educator engages in effective professional learning every day so every student achieves” (p.1). The Ohio Department of Education (ODE) has also responded to this issue through the development of the Ohio Standards for Professional Development. These align with the NSDC standards. Ohio’s standards (2008) clearly reflect the focus on accountability for student achievement as set by NCLB by describing effective professional development as an “ongoing, systematic process, linked to the daily practice of educators and based on data-driven needs. They guide organizations and individuals in the selection of high quality professional development to meet their varied educational needs” (p. 3).

The NSDC (2001) has categorized professional development standards for the improved learning of all students into three areas: context standards; process standards; and content standards. The research surrounding the context of professional development examines the role of school and district leaders. These leaders need skills in guiding on-going improvement. These leaders also need to provide the resources necessary to support adult learning and time for collaboration. Leaders need skills to support the new strategies teachers are learning.

Process standards for effective professional development center on the implementation of systems to improve student learning. Disaggregated student data is
monitored to determine adult learning priorities. Multiple sources of information are used to guide improvement. Educators use research to make decisions. Applicable learning strategies are used to reach the planned goals. Information about human learning and change is used. Educators also need skills in collaboration, the importance of which is shown by the study done by Lewis (1998). The author found that teachers became more student focused when they looked and discussed student work together. Further, these conversations then progressed to discussions relating to subject areas, and to teaching and learning.

The content standards of professional development center on advancing the knowledge, skills, and dispositions of the educators. It is important that the educators have the skills to create a positive learning climate; one that understands, appreciates, and has high expectations of all students. In order to achieve this, they must have the skills to gather information about their students, such as their experiences, interests, culture, strengths, and challenges. In conjunction with these understandings, professional development for educators must be provided which increases content knowledge, pedagogical and content pedagogical skills, and the development of appropriate assessments. Finally, educators need skills to effectively work with families and other stakeholders throughout these processes. Epstein (1995) describes guidelines that can assist schools in building partnerships. She explains that these family and community partnerships do not exist automatically, but must be carefully nurtured over time.
Standards for Principal Preparation Programs

The National Council for Accreditation of Teacher Education (NCATE) and Teacher Education Accreditation Council (TEAC) are the two most widely recognized organizations that help establish high quality educator preparation programs. Both have processes in place which accredit schools, colleges, and departments of education as they prepare teachers, school specialists, and administrators. NCATE and TEAC share the goal of supporting the preparation of competent, caring, and qualified educators (NCATE, 2010; TEAC, 2010). In addition, there are Ohio Standards for Principals which have shared expectations with NCATE and TEAC. Further, the Council for Exceptional Children (CEC) have developed standards for special education administrators, however these do not relate to building principals.

National Council for Accreditation of Teacher Education

NCATE was founded in 1954. It has approved national standards for 20 program areas. These areas were developed by professional associations and are referred to as Specialized Program Associations (SPAs). The SPA for principals, superintendents, curriculum directors and supervisors is the Educational Leadership Constituent Council (ELCC). These standards were specifically designed for advanced programs in educational leadership. The seven standards are divided into two areas: school building leadership and school district leadership. These seven standards include: (1) vision; (2) school culture, instructional programs, best practices, and professional growth; (3) management of the organization; (4) collaboration with families and community; (5)
acting with integrity, fairly, and ethically; (6) political, social, economic, legal and cultural context; and (7) internship.

The standards use general terms and concepts. The goal is that program completers will be “educational leaders who have the knowledge and ability to promote the success of all students” (NCATE, 2010). Specific language relating to preparation of school building leaders for special education is minimal, falling under the umbrella of diversity. NCATE specified that “diversity” included disability, as well as population, language, gender, race, and socio-economic status.

The first standard is central to the other six. It emphasizes the need for educational leaders to develop, articulate, implement, steward, and promote community involvement in a vision for the school. The belief and dedication in educating all students to become successful adults is essential to this vision. This is promoted through the actions of the building leader.

Standards 2 through 6 focus in broad terms on many of the elements identified by Bateman and Bateman (2006) as necessary for principals to know about educating students with disabilities. Standard 2 concentrates on promoting a positive school culture. It also centers on providing effective instructional programs and applying best practices to student learning. Tied to this concept is the on-going professional growth of all school staff.

Similarly, Standard 3 concentrates on the management of the organization, operations, and resources. This includes the organization and management of fiscal, human, and material resources. Appropriate management as it relates to legal issues is
addressed in this standard. Also, the selection and evaluation of staff is included as part of human resources. Properly managing the operation will create a safe, efficient, and effective learning environment.

Standard 4 centers on collaboration with families and community members, acting on the interests and needs of the community, and gaining community support. Effective communication, collaboration, and involvement with stakeholders are integral to the success of students and the effectiveness of the school. Diversity is further addressed in this standard. It states that by providing “leadership to programs serving all students, including those with special and exceptional needs, further communicates to internal and external audiences the importance of diversity” (NCATE, 2010).

The tone that the building leader sets through words and actions is the focus of Standard 5. Acting with integrity, fairly, and ethically the principal models expected interactions with students, staff, families, and the community. Further, there is the expectation that the educational leader will “advocate for all children, including those with special needs who may be underserved” (NCATE, 2010).

Standard 6 centers on building leaders understanding, responding to, and having influence in the community and beyond. This primarily relates to the political, social, economic, legal, and cultural context. There is a strong emphasis on knowledge and abilities relating to policies, laws, and regulations which potentially improve opportunities for all students regardless of diversity.

The final standard involves those in principal preparation programs participating in a six month internship. While the internship does not have to be consecutive, the
purpose is for candidates to apply their knowledge and abilities relating to the first six
standards in an authentic setting with appropriate guidance. NCATE emphasizes this as a
critical aspect of the preparation program.

Teacher Education Accreditation Council

The Teacher Education Accreditation Council was founded in 1997. It organizes
itself differently from NCATE. While NCATE has standards developed by SPAs
developed by the National Policy Board for Educational Administration (NPBEA),
TEAC has principles and standards for educational leadership programs. There are three
principles: evidence of candidate learning; evidence of faculty learning and inquiry; and
evidence of institutional commitment and capacity for program quality.

Four of the standards in the first principle are the only ones which explicitly
address the knowledge and skills needed for principal candidates. It includes five
standards: (1) professional knowledge; (2) strategic decision-making; (3) caring
leadership skills; (4) cross-cutting themes; and (5) evidence of valid assessment. It is the
responsibility of the institution to provide appropriate data that program completers have
learned and understood the curriculum relating to the standards.

Terms and concepts are also described in general terms. Language specifically
relating to special education is not included. The term “diverse” is used, but is not
clarified. The term “multicultural” is also used and is described as “race, gender,
individual differences, and ethnic and cultural perspectives” (TEAC, 2010). However,
many of the knowledge and skill areas are also identified by Bateman and Bateman
(2006) as needed in educating students with disabilities.
TEAC Standard 1.1 centers on professional knowledge. In particular, skills to effectively lead the organization are the focus. Principal candidates need understanding of organizational theory and development. They also need knowledge relating to school finance, data analysis, educational policy and law, and instruction. This will be beneficial in practice as they apply their skills. Graduates are expected to have the skills necessary to positively affect the culture of the school and create a safe learning environment. They also need to be prepared to develop an effective instructional program for students, as well as a comprehensive professional staff development plan. The ability to collaborate with families and community members in order to support the interests and needs of the school and the community as a whole are also essential.

Standard 1.2 concentrates on strategic decision-making. The graduates of principal preparation programs must know how to make informed decisions based on data and through the involvement of stakeholders. This information must then be used to develop a vision and goals for the school, which must be in line with the mission of the school and democratic ideals. These must be communicated to all.

The third standard focuses on caring leadership skills. It is related to application of their knowledge in a “caring and professional manner” (TEAC, 2010). The expected result is that all students will reach appropriate levels of achievement.

The final standard which directly identifies knowledge and skills that graduates of principal preparation programs must have is 1.4. It includes three liberal education themes. The first is learning how to learn. It centers on candidates knowing how to gain information on their own, applying it, and on-going reflection. The second theme is
multicultural perspectives and accuracy. Participants must demonstrate that they have correct knowledge on matters such as “race, gender, individual differences, and ethnic and cultural perspectives” (TEAC, 2010). The last theme is technology. Candidates must have the skills in technology to effectively perform their responsibilities as a principal.

In October of 2010, the boards of NCATE and TEAC voted to consolidate. This new organization will be the Council for the Accreditation of Educator Preparation (CAEP). They have set two goals: “(1) to raise the performance of candidates as practitioners in the nation’s P-12 schools; and (2) to raise the standards for the evidence the field relies on to support its claims of quality” (NCATE, 2010). It is anticipated that this will be an 18 month to two-year transition.

*Ohio Standards for Principals*

Ohio has also set standards for professionals in education which include Ohio Standards for the Teaching Profession, the Ohio Standards for Principals, and the Ohio Standards for Professional Development. These are used as a guide as educators engage in on-going reflection regarding their effectiveness as professionals. These emphasize many of the same important general concepts which Bateman and Bateman (2006) found supportive to students with disabilities. There are also commonalities among the standards for Ohio principals, NCATE, and TEAC. While reference to disability was imbedded within the term “diversity” in the NCATE standards, and TEAC did not speak to students with disabilities at all, the Ohio standards clearly address it.
The five standards are organized under three organizers: goals and achievement; conditions; and collaboration and communication. The Goals and Achievement organizer includes both Standard 1 and 2. Standard 1 centers on the principal creating a shared vision and goals. The process of setting, monitoring, and achieving goals is essential to continuous improvement. These goals should set high expectations for students and school personnel. Standard 2 concentrates on effective standards based curriculum and instruction which meets the needs of all students including students “identified as gifted, students with disabilities, and at-risk students” (Ohio Standards for Principals, 2010). The on-going use of research and data is used to make decisions for planning and professional development.

The Conditions organizer is supported by Standard 3. It focuses on assigning resources and managing school operations in order to establish a safe and productive learning environment for students and school personnel. Principals are also expected to set an example as it relates to ethics, policies, and legal systems of professional behavior.

The final organizer is Collaboration and Communication. Both Standards 4 and 5 are addressed here. Standard 4 discusses the creation of a culture of collaborative learning and shared leadership. This involves all stakeholders being part of these processes: school personnel; students; parents; and community members. Standard 5 furthers Standard 4 by identifying the parents and community in particular as necessary in the educational process. Through their connection and support, student learning is improved.
Council for Exceptional Children (CEC) Standards for Special Education Administrators

The leading professional association committed to advancing the educational accomplishment of individuals with disabilities and/or gifts and talents is the CEC. The CEC advocates for individuals with exceptionalities and supports appropriate legislative policies. They establish professional standards for initial practitioners, advanced specialists, and paraeducators. CEC offers professional development opportunities and facilitates professionals in obtaining conditions and resources needed for effective professional practice.

The CEC standards for advanced positions in special education delineate the knowledge and skills special educators who are experienced, looking for an advanced degree or certification, or going into administration should understand. CEC also has knowledge and skills for four particular advanced special education roles; special education administrators, technology specialists, educational diagnosticians, and transition specialists. Special education advanced programs at colleges and universities will be held to the CEC standards for the National Council for Accreditation of Teacher Education (NCATE) review process.

There are no CEC standards developed specifically for building leaders. It appears that the standards for special education administrators more accurately reflect the typical responsibilities of the district level position responsible for students with disabilities. One could argue however, that principals are in effect special education administrators. They have the most direct, day-to-day accountability for special
education processes and services. A review of these standards provides some insight into
many of the responsibilities involved.

The Council for Exceptional Children (2010) states that the purpose of the
advanced standards is to make certain that these experienced special education
professionals are able to perform at a high level. The standards cover knowledge and
skills in six various areas. The standards include: leadership and policy; program
development and organization; research and inquiry; student and program evaluation; and
professional development and ethical practice; and collaboration.

The first standard is leadership and policy. Special education administrators
should have the knowledge and skills to advocate for legislation and ethical policy that
promotes high quality education for individuals with exceptional needs. They also need
to demonstrate leadership by establishing procedures which value all individuals which,
in turn, produces a positive work climate.

Standard Two centers on program development and organization. Leaders in
special education should have the ability to improve instructional programs at the school
and district levels. They must also be able to create processes to improve management
systems. Special education administrators must have the skills to plan and implement on-
going professional development to sustain the implementation of evidence-based
practices. They need to be able to align the individual needs of each child with
exceptionalities with appropriately challenging learning standards and curriculum.
Program development should also center on knowledge of various areas of diversity and
an understanding of each child’s development.
Research and inquiry is the focus of the third standard. Special education administrators should utilize research in education to improve instructional and adaptations. Additionally, they need to create an environment which encourages ongoing improvement based on action research.

Standard Four furthers the utilization of research by evaluating students and programs. Special education administrators must have the skills to create and put into practice research. Specifically, this would be used to evaluate the effectiveness of instructional practices and program goals as it applies to student learning of the general education curriculum and individualized IEP goals.

The fifth standard combines the importance of professional development with ethical practice. Special education administrators have the responsibility of safeguarding the legal rights of students, families, and personnel. In order to remain current, they need to constantly build on their professional knowledge and skills. Particularly, the focus of professional development should include effective practices which will support student access to learning through high quality curriculum and instruction, and assistive technology. Skills are also needed to appropriately plan, present, and evaluate professional development.

The last standard concentrates on collaboration. Special education administrators need to recognize the significance of collaboration and promote the integration of services for individuals with exceptionalities. Collaborative processes are important among school personnel, as well as stakeholders, such as families and communities.
Issues relating to diversity should be understood in order to improve opportunities for individuals with exceptionalities.

Implications of Principal Beliefs of Students with Disabilities and Special Education

When state proficiency tests were first given, students identified with a disability were not required to take them. In 1997 the IDEA was revised, and mandated that all students, including those with disabilities, participate in state and district-wide assessments. This required that these students have access to the general education curriculum in the LRE. With the passage of No Child Left Behind (NCLB, 2002) the progress of each student was to be monitored to account for adequate yearly progress (AYP). The data from each school is also disaggregated to analyze the progress of certain groups, including those who are receiving special education services.

Principals are now being held accountable for the performance of all students in their buildings. Inclusion has become an important part of contemporary reform efforts. Concentrated efforts on the placement of these students in general education classes are viewed as an important way to improve the delivery of services to students with disabilities. However, the principal has a lot of control over the climate of the building. Their attitudes and values influence the extent to which efforts to change are supported.

When questioned, principals overwhelming felt that the achievement scores of students with disabilities should not be included in AYP (Farkas, Johnson, and Duffett, 2003; Wakeman, Browder, Flowers & Ahlgrim-Delzell, 2006). Further, Wakeman, et al. (2006) found that in theory principals believed that students with disabilities should have
access to the general curriculum however, fewer believed that the students were actually getting it in the general education classrooms.

Praisner (2003) specifically researched the attitudes of elementary school principals toward the inclusion of students with disabilities, the factors related to attitudes, and their potential impact upon the placement of students with disabilities. Her findings are telling. Principals with more positive attitudes toward inclusion were more likely to believe that less restrictive placements were most appropriate for students with disabilities. The disability category that a student has was also related to the selected placement. Students with mental retardation, neurological impairment, and multiple handicaps were most likely to be placed in a more restrictive setting within the school. The most segregated settings of special education services outside regular education schools and special classes were selected by more than half of the respondents for serious emotional disturbance (63.6%) and autism spectrum disorder (49.8%).

Furthering this line of thought, Wakeman, et al., (2006), found that principals who indicated having more knowledge about special education are also more involved in the various aspects of it. They reported regularly meeting with special education teachers, and also supported them with resources to assist them in meeting the needs of the students. Gersten, Keating, Yovanoff & Harniss (2001) had similar findings. They explored factors which increased retention rates of special education teachers. Principals significantly impacted this decision. The special education teachers indicated being more satisfied if the principals met and worked through conflicts and confusions in the
demands of their job with them. They also indicated that having resources, such as relevant professional development opportunities, was important.

Praisner (2003) determined that another significant factor regarding the beliefs about students with disabilities was the kind of experiences the principals had with them. The more positive the experiences, the more positive a principal’s attitude was toward inclusion. Also, it appeared that the nature of experiences in a school setting, and not the amount of experience, is associated with attitudes toward inclusion. The kinds of experiences principals had with students with disabilities differed by the disability category. Most experiences were categorized as somewhat positive to positive or having had no experience. The exception was students with serious emotional disturbance. Principals indicated almost equal percentages of positive and negative experiences.

The enactment of the NCLB Act and IDEA has set strict accountability measures for schools to educate all students. Principals have the direct responsibility of monitoring the instructional and behavioral approaches taken. What these approaches look like in schools is based on their view of learning and of exceptionality. Their level of formal preparation and experiences strongly influence their beliefs about students with disabilities. This in turn, impacts which view, or views, are established in the culture of the school, and how students with exceptionalities are educated.
Chapter 3
METHODOLOGY

The methodology presented in this chapter was used to explore the questions of this research study. Included are the following sections: a) research design, b) subject selection, c) instrumentation, d) data collection, and e) data analysis.

Research Design

The study was designed and conducted as descriptive survey research. As discussed in Chapter One, the purpose was to gain insight into and accurately depict the perceptions of principals of schools in Ohio which includes at least one primary grade level (kindergarten, first, second or third grade) regarding special education. Specifically, principals self-reported their perceived knowledge of, as well as importance of preparation for specific elements of special education. The theoretical framework for this research study was founded in the medical model view of disability, behavioral view of learning, and the sociocultural view of learning. The study was designed to focus on one point of time, looking at those perceptions held at the time the questionnaire was completed by the participants involved in the study.
The survey questionnaire requires self-reporting by the principals. Self-reported data has been shown to be valid and reliable under particular conditions (Pace, 1984; Kuh, Carini, and Klein, 2004). Specifically, the researchers found that the accuracy of answers is determined by the clarity of questions, on whether the respondents have a good foundation and/or experience for responding, on whether the form in which the answers are to be given is suitable, and on whether the respondents regard the questions themselves as worth a serious response. The methodology of the research study was designed to address this through instrumentation, subject selection, internal and external validity, reliability, and anonymity.

Subject Selection

The target population for this study was principals of schools which include at least one primary grade level which were part of city, exempted village, and local districts in Ohio. The accessible population was the same as the target population. The frames of city, exempted village, and local school districts were accessed from the Ohio Educational Directory System (OEDS), which is public information developed and provided by the Ohio Department of Education (ODE). The frames of the principals were also obtained from the OEDS through the ODE website. Information gathered from these was the most accurate data available, thus avoiding frame error.

A proportional stratified sampling procedure was used. The basis for stratification was city, exempted village, and local school districts. The proportional stratified sampling procedure allowed each stratum to be represented in accurate
proportion to its frequency in the respective target population. The process assured representation of the defined groups in the populations and allowed conclusions to be made concerning each stratum.

In Ohio, there were a total of 1846 schools which contained at least grades one primary grade level in city, exempted village, and local school districts. There were 1072 schools in city districts, 88 schools in exempted village districts, and 686 schools in local districts. Therefore, 58.072 percent of the districts were city, 4.767 percent were exempted village, and 37.161 percent were local. The Raosoft® sample size calculator recommended that 319 of the 1846 schools should be sampled. This would allow for a five percent margin of error and a 95 percent confidence level, which is typical in descriptive research. An additional 30 percent was added to the sample size, increasing the sample to 415 for the study, which is 22.48 percent of the target and accessible population. In this study, the target and accessible population had a frame of 1846 elements. Using a proportional stratified sampling procedure, 241 schools were randomly selected from each city district frame, 20 from each exempted village district frame, and 154 from each local district frame. Subjects were selected using SPSS 17.0 to identify the sample. Once schools were identified, they were matched with the names of the respective principal. Figure 3.1 portrays the sampling method used for this research study.
TARGET AND ACCESSIBLE POPULATION (N= 1846)
(Principals of schools which include at least one primary grade level in city, exempted village, and local school districts in Ohio)

PROPORTIONAL STRATIFIED SAMPLE (N= 415)
(Sample size of principals of schools which include at least one primary grade level in city, exempted village, and local districts in Ohio)

ACCEPTING SAMPLE (N= 195)
(Those subjects who returned completed questionnaires.)

DATA SAMPLE (N= 194)
(Those subjects who supplied usable data)

Figure 3.1 Graphic Illustration of Subject Selection

Instrumentation

Variables

According to research conducted by Bateman and Bateman (2006) knowledge of specific elements of special education, along with practical applications, are critical for principals to be effective. These 24 elements fall into seven categories, which include: 1) laws and legislation impacting students with disabilities, 2) staffing and evaluation of special education personnel, 3) inclusive practices, 4) eligibility for special education processes, 5) individualized education program (IEP) processes, 6) discipline of students
with disabilities, and 7) due process. Exploratory factor analysis was performed in an attempt to reduce the set of 24 variables to a smaller number of common factors.

Summary of the Instrument

The questionnaire was comprised of 35 items which require responses. It was reasonable in length and easy to complete. Part 1 included 24 elements specifically relating to special education. Using a multi-anchored scale, two six-point summated ratings were provided in Part I to allow principals to self-report their perceived knowledge, as well as the importance of it to their effectiveness. The numerical values were assigned by principals as responses to questions on the questionnaire regarding their knowledge of specific elements of special education in terms of: expert, considerable knowledge, general knowledge, minimal knowledge, recognize only, or no familiarity at all. Likewise, the numerical values were assigned by principals as responses to questions on the questionnaire regarding the importance of preparation for specific elements of special education in terms of: critically essential, essential, needed, useful, minimally useful, or of no importance. The researcher intentionally selected a six-point scale so that respondents could not remain undecided or neutral. This scale also allowed variance to be represented.

Part II consisted of six questions. Principals provided detailed demographic information about their school such as: type of school district, grade levels included in school, current adequate yearly progress (AYP) status relating specifically to students with disabilities, total student enrollment, percentage of the student enrollment of the
school identified with a disability, and categories of students with disabilities served at the school.

Part III was the final section. It also consisted of five items. Principals provided professional information about themselves such as: which state principal licensure was earned, sources of knowledge regarding special education, number of years of experience completed as a building principal, number of years of professional experience completed in the public schools, and percentage of work day spent on specific elements relating to special education.

The questionnaire was printed in booklet form. It was designed to be visually appealing with a logical flow. The cover included the title of the study along with a graphic printed in color. It also included language indicating a relationship with the university. The inside cover provided clear directions, definitions of summated scale ratings, and an example of how to complete the multi-anchored scale, required for Part I. The two summated ratings were printed in different colors. Those relating to knowledge were printed in blue, and those relating to importance of preparation were printed in red. Directions were provided at the top of each page of this section. Parts II and III included questions which were used to gather data regarding school and professional demographics. These were placed at the end of the questionnaire. Directions were provided for each question. The back of the questionnaire provides a large area for participants to offer additional information or comments.

**Measurement**

The following operational definitions are provided:
Perceptions of knowledge of special education will be defined by the summated average of the total 24 responses on the questionnaire based on a 6-point summated rating scale identifying frequency of occurrences given a numerical value ranging from “no familiarity at all”=1 to “expert”=6.

Perceptions of importance of preparation for special education will be defined by the summated average of the total 24 responses on the questionnaire based on a 6-point summated rating scale identifying frequency of occurrences given a numerical value ranging from “of no importance”=1 to “critically essential”=6.

Internal Validity

The two broad types of errors that affect measurement are nonrandom and random errors. The first type of error that affects measurement is nonrandom error, or systematic bias. Validity depends on the extent of nonrandom errors present in the measurement process. Measurement is affected by unmeasured variables or more than one underlying construct. Face validity is concerned with the degree to which an instrument appears to measure what it purports to measure. It is a subjective judgment by persons who either administer or complete the instrument. Both should “perceive the questions to be relevant (Ary, D., Jacobs, L. & Sorensen, C., 2010, p. 409). Suitability- whether the instrument is appropriate for the audience- also can be determined. The survey can be revised based on feedback.

Face validity and suitability of the questionnaire were first determined by four persons. These persons have expertise in areas of education, but not special education or K-12 educational leadership. Materials were prepared and delivered to them. The letters
were sent with the initial questionnaires, and requested individuals to comment on the clarity, structure, and appropriateness of the instrument, whether they believed the instrument measured what they purported to measure, and whether the instrument was free from bias. They were also asked to identify deficiencies and potential problems with the instruments and to make suggestions for improving the questionnaire. Appendix D is a copy of the Questionnaire Evaluation form used to gather comments and suggestions.

Content validity is concerned with the degree to which an instrument assesses the relevant aspects of the concept the instrument purports to measure. Huck (2008) explained that the degree to which the items collectively cover the information that the instrument is designed to cover is important. It is insured by the plan and procedures used to construct the instrument. A panel of experts can be used to compare the items logically to the domain to be measured to produce a “juried” instrument.

Face validity, suitability, and content validity of the questionnaire were determined by a panel of experts. This panel consisted of two groups. The first was in the field of special education. These four persons were selected because of their knowledge of and experience with special education. The second group was 11 principals (six principals from city districts, one from an exempted village, and four from local districts), which were identified through proportional stratified sample after subjects had been selected for the research study and pilot study. Materials were prepared and mailed to all members of the panel of experts. The cover letters were sent with the initial questionnaires, and also requested individuals to comment on the clarity, structure, and appropriateness of the instrument, whether they believed the instrument measured what
they purported to measure, and whether the instrument was free from bias (Appendices E and F). The members of the panel were also asked to identify deficiencies and potential problems with the instruments and to make suggestions for improving the questionnaire. Appendix G is a copy of the Questionnaire Evaluation form used to gather comments and suggestions. The questionnaire was then revised based upon information gathered from them.

**Pilot Testing of Instrument**

The second type of error that affects measurement is random errors which are associated with reliability. These are chance factors that confound the measurement of any phenomena. It is always present to some extent. The amount of random error is inversely related to the degree of reliability of the measuring instrument. After receiving comments from the panel of experts in special education and principals, the instrument was revised for the pilot test and actual data collection. Ary, et al (2010) stated that the pilot study affords the opportunity to evaluate the appropriateness of the data-collection methods and other processes and to make adjustments if needed.

A pilot test, to address reliability, was conducted prior to administering the instrument, with 50 randomly selected principals. Again, the OEDS-R was the source for this information. Subjects were selected using SPSS 17.0 to identify the sample after the units were selected for the study itself. The pilot study included 29 principals from city districts, two from exempted villages, and 19 from local districts. The mailing included a cover letter (Appendix I), the questionnaire, a stamped addressed return envelope for the questionnaire, a stamped addressed numbered postcard (Appendix J), and a humorous
cartoon regarding principals printed on cardstock as an incentive to return the questionnaire.

Of the 50 questionnaires mailed 24 (48%) were returned and usable. The data was entered into SPSS 17.0. Analysis of the internal consistency of the instrument of the first 24 items using Cronbach’s Alpha coefficient was .938. Specifically, the Cronbach’s Alpha coefficient relating to knowledge of special education was .943, and the coefficient for those relating to importance of preparation for special education was .934. According to Nunnally (1978), reliability should be at a .70 or better. Revisions were made to Part III of the questionnaire based on results of the pilot test.

External Validity

Ary, et al (2010) explain there are four types of errors which can threaten external validity with a sample survey: sampling error; frame error; selection error; and non-response error. Sampling error occurs when the sample is non-representative or non-probabilistic, making it a non-random sample. To control for this error, the researcher used a proportional stratified random sample, allowing for every member of the target population the same chance of being chosen as subjects for the study.

Frame error means that the frame is incomplete. There is a discrepancy between the intended target population and the actual population from which the sample is drawn. The list is inaccurate in that units are omitted. To control for this the researcher accessed the frames of city, exempted village, and local school districts from the Ohio Educational Directory System (OEDS), which is public information developed and provided by the Ohio Department of Education (ODE). The frames of the principals were also obtained
from the OEDS through the ODE website. Information gathered from these was the most accurate data available, thus avoiding frame error.

Selection error refers to sampling units having a greater chance of being chosen than others. A possible participant may be listed more than once on a list. To control for this type of error the researcher purged lists of duplications.

Non-response error occurs when subjects cannot be located or fail to respond. It is important to get as many responses as possible when conducting survey research. The survey was designed and conducted to achieve as high a response rate as possible. The researcher sent a postcard prior to the packet containing the questionnaire notifying the subject that they had been selected to participate in the research study. A stamped addressed envelope was enclosed for returning the questionnaire. A stamped addressed numbered postcard was also included. Participants were requested to return a stamped addressed numbered postcard at the same time as the envelope containing the questionnaire to maintain anonymity. Items were mailed flat, not folded. A small incentive was included. The response deadline was included in the cover letter to the subject receiving the questionnaire.

There were several things that the researcher did to address the issue of non-response error. Non-respondents of the research study were sent an email (Appendix Q) encouraging them to return the questionnaire along with a corresponding numbered postcard. A second questionnaire was mailed to the remaining principals who had not responded. The mailing included an addressed cover letter (Appendix R), the questionnaire, another stamped addressed envelope, and stamped addressed numbered
A piece of candy was also included as an incentive to return the questionnaire. Those that still did not respond to the second questionnaire packet were sent reminder through email (Appendix S).

**Anonymity**

The cover letter (Appendices I and O) included in the packet sent to respondents for the pilot test and research study provided information regarding consent and anonymity. The cover letter states that by returning the completed questionnaire, it is understood that consent as a willing participant was given. The respondents were assured that their responses would remain confidential and anonymous, and that only the researcher and my advisor, Dr. Bryan Warnick, would see or have access to any information. Further, in order to preserve all participants’ anonymity, respondents for the pilot test and research study were asked to refrain from placing any identifying information, such as their name, address, telephone, or identifying marks on their questionnaire. Also, the mailing to respondents included a cover letter which explained that both a questionnaire and a stamped addressed numbered postcard (Appendix K) were enclosed which were to be mailed separately from each other to retain anonymity.

**Data Collection**

The following is a listing of tasks completed in the collection of data and the completion dates of each task. The panel of experts, respondents for the pilot test, and study provided data at a time and place of their choosing within the framework of the following timeline.
<table>
<thead>
<tr>
<th>Date</th>
<th>Tasks Completed</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Monday, October 25, 2010</strong></td>
<td>The application, including the proposed instrument to be used in formal data collection, was submitted to the Office of Responsible Research Practices at OSU for Category 2 exemption, indicating anonymity for participants.</td>
</tr>
<tr>
<td><strong>Tuesday, November 2, 2010</strong></td>
<td>The researcher received approval required for the formal collection of data from Muskingum University.</td>
</tr>
<tr>
<td><strong>Tuesday, November 16, 2010</strong></td>
<td>The Office of Responsible Research Practices at OSU sent an email indicating that the protocol would be considered exempt from IRB review. A formal letter would be sent soon.</td>
</tr>
<tr>
<td><strong>Thursday, November 18, 2010</strong></td>
<td>The initial frame of school districts from the Ohio Department of Education and principal frames were obtained from the Ohio Department of Education website. These lists were purged and finalized.</td>
</tr>
<tr>
<td><strong>Friday, November 19, 2010</strong></td>
<td>Persons were identified to determine face validity. This included four persons. Materials were prepared and delivered to them. The contact letter and evaluation form has been included in Appendices C and D.</td>
</tr>
<tr>
<td><strong>Friday, November 19, 2010</strong></td>
<td>A panel of experts in special education was identified. This included four persons. Materials were prepared and mailed to them. The contact letter and evaluation form in consulting the panel of experts has been included in Appendices E and F.</td>
</tr>
<tr>
<td><strong>Friday, November 19, 2010</strong></td>
<td>Proportional stratified samples (city, exempted village, local) of principals were conducted for the panel of experts, as well as for the pilot test and study. Numbers were assigned to the schools identified for the pilot test and study. Participants were requested to return a stamped addressed numbered postcard at the same time as the envelope containing the questionnaire to maintain anonymity.</td>
</tr>
<tr>
<td><strong>Monday, November 22, 2010</strong></td>
<td>The Office of Responsible Research Practices at OSU determined the protocol exempt from IRB review. Documentation has been included in Appendix B.</td>
</tr>
<tr>
<td>Date</td>
<td>Description</td>
</tr>
<tr>
<td>-------------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Monday, November 29, 2010</td>
<td>Materials were prepared and mailed to principals selected for the panel of experts. This included 6 city principals, 1 exempted village principal, and 4 local principals. The mailing included a contact letter, the questionnaire, evaluation form, a stamped addressed return envelope for the questionnaire, and a humorous cartoon regarding principals printed on cardstock as an incentive to return the questionnaire. The contact letter and evaluation form in consulting the panel of experts has been included in Appendices E, F and G.</td>
</tr>
<tr>
<td>Monday, December 20, 2010</td>
<td>The questionnaire was revised based upon feedback from those examining face validity and the panel of experts.</td>
</tr>
<tr>
<td>Wednesday, December 22, 2010</td>
<td>The application, including the proposed instrument to be used in formal data collection, was resubmitted to the Office of Responsible Research Practices at OSU for Category 2 exemption, indicating anonymity for participants.</td>
</tr>
<tr>
<td>Wednesday, December 29, 2010</td>
<td>The Office of Responsible Research Practices at OSU sent an email indicating that the protocol would be considered exempt from IRB review. A formal letter would be sent soon.</td>
</tr>
<tr>
<td>Wednesday, January 5, 2011</td>
<td>The revised application, including the proposed instrument to be used in formal data collection, was submitted to IRB at Muskingum University.</td>
</tr>
<tr>
<td>Monday, January 10, 2011</td>
<td>The pilot test was mailed to 29 city principals, 2 exempted village principals, and 19 local principals. The mailing included a cover letter, the questionnaire, a stamped addressed return envelope for the questionnaire, a stamped addressed numbered postcard, and a humorous cartoon regarding principals printed on cardstock as an incentive to return the questionnaire. Participants were requested to return a stamped addressed numbered postcard at the same time as the envelope containing the questionnaire to maintain anonymity. Documentation has been included in Appendices I and J.</td>
</tr>
<tr>
<td>Wednesday, January 19, 2011</td>
<td>The Office of Responsible Research Practices at OSU determined the protocol exempt from IRB review. Documentation has been included in Appendix H.</td>
</tr>
<tr>
<td>Date</td>
<td>Event Description</td>
</tr>
<tr>
<td>----------------------</td>
<td>-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Thursday, January 20, 2011</td>
<td>Non-respondents of the pilot test were sent an email (Appendix K) encouraging them to return the questionnaire and corresponding numbered postcard. Each email was sent individually so other participants did not have access to others involved in the study.</td>
</tr>
<tr>
<td>Tuesday, January 25, 2011</td>
<td>Non-respondents of the pilot test were determined. A second questionnaire was mailed to those who had not responded. The mailing included an addressed cover letter (Appendix L), the questionnaire, another stamped addressed envelope, and stamped addressed numbered postcard. A piece of candy was included as an incentive to return the questionnaire.</td>
</tr>
<tr>
<td>Monday, February 7, 2011</td>
<td>The Office of Responsible Research Practices at OSU determined the protocol exempt from IRB review. Documentation has been included in Appendix M.</td>
</tr>
<tr>
<td>Friday, February 11, 2011</td>
<td>The application, including the proposed instrument to be used in formal data collection, was resubmitted to the Office of Responsible Research Practices at OSU for Category 2 exemption, indicating anonymity for participants.</td>
</tr>
<tr>
<td>Tuesday, February 15, 2011</td>
<td>An introductory postcard (Appendix N) was mailed to the 415 research subjects to inform them about the research study and that the questionnaire would be mailed within a week. This included 241 city principals, 20 exempted village principals, and 154 local principals.</td>
</tr>
<tr>
<td>Friday, February 18, 2011</td>
<td>The questionnaire (Appendix A) was mailed to the 415 subjects selected for the study. A cover letter (Appendix O) was enclosed. Questionnaires were printed in color and were mailed flat in envelopes. A stamped addressed envelope was enclosed for returning questionnaires. A stamped addressed numbered postcard (Appendix P) was also included. Participants were requested to return a stamped addressed numbered postcard at the same time as the envelope containing the questionnaire to maintain anonymity. A humorous cartoon regarding principals printed on cardstock was enclosed as an incentive to return the questionnaire. Questionnaires were mailed to the principal’s school. Each questionnaire was dated upon return.</td>
</tr>
</tbody>
</table>
Non-respondents of the research study were sent an email (Appendix Q) encouraging them to return the questionnaire and corresponding numbered postcard. Each email was sent individually so other participants did not have access to others involved in the study.

Non-respondents were determined. A second questionnaire was mailed to the remaining principals who had not responded. The mailing included an addressed cover letter (Appendix R), the questionnaire, another stamped addressed envelope, and stamped addressed numbered postcard. A piece of candy was included as an incentive to return the questionnaire.

Non-respondents of the research study to the second questionnaire were sent an email (Appendix S) encouraging them to return the questionnaire and corresponding numbered postcard. Each email was sent individually so other participants do not have access to others involved in the study.

Questionnaires from the second mailing were returned. A total of 46.74 percent of the principals had responded. Entered data into SPSS 17.0 for analysis and began to organize findings.

Data Analysis

In order to gain insight into and accurately depict the perceptions of principals of schools in Ohio which include at least one primary grade level regarding special education, the researcher began by reporting descriptive statistics regarding demographic information from principals about the school such as: type of school district, grade levels included in school, current adequate yearly progress (AYP) status relating specifically to students with disabilities, total student enrollment, percentage of the student enrollment of the school identified with a disability, and categories of students with disabilities
served at the school. Further, descriptive statistics were reported regarding professional information provided by the principals such as: which state principal licensure was earned, sources of knowledge regarding special education, number of years of experience completed as a building principal, number of years of professional experience completed in the public schools, and percentage of work day spent on specific elements relating to special education. Frequencies, percents, and cumulative percents were provided for each.

For the purpose of describing the self-reported perceptions of respondents regarding their knowledge of and importance of preparation for specific elements relating to special education, the researcher completed descriptive analyses. The percent for each questionnaire alternative to indicate respondent levels for the first 24 items was reported. In addition the means, standard deviations, skewness, kurtosis, standard error of measurement, and histograms of the data were also collected for those items.

The researcher then explored to see if significant differences exist in the perceptions of the responding principals regarding their knowledge of and importance of preparation for specific elements relating to special education. According to demographic characteristics the researcher used analysis of variance (ANOVA) as the primary statistical test when various demographic characteristics served as independent variables and items 1-24 served as dependent variables.

Next, the researcher examined the relationship between the perceptions of Ohio principals in schools which include at least one primary grade level regarding their knowledge of and importance of preparation for specific elements relating to special
education. Pearson Product-Moment Correlation is commonly performed in survey research to clarify the relationship. It was used to describe the correlations between each.

Additionally, principal components analysis was performed in an attempt to reduce the set of 24 variables to a smaller number of common factors. The data for knowledge of and importance of preparation for were analyzed separately. It informs internal validity by exploring the extent to which the observed variables represent a distinct set of underlying constructs or components.

Further, the reliability of the instrument used in the research study was explored through Cronbach’s alpha coefficient. Cronbach's alpha is a measure of internal consistency. It describes how closely related a set of items are as a group. Huck (2008) explains that the Cronbach's alpha coefficient of a scale should be above .7. Cronbach’s Alpha was calculated for the pilot study and the actual study. The results were also determined for knowledge of and importance of preparation for the pilot and actual study.

Finally, principals were encouraged to provide any comments or additional information they would like on the last page of the survey questionnaire booklet. The researcher typed each on paper. Then, the researcher worked with two persons: one who has expertise, as well as experience, with special education; and another who has expertise in areas of education, but not special education or K-12 educational leadership. The comments were then categorized into construct descriptors. The number of responses per construct descriptor were provided.
Table 3.1 summarizes the data analyses to be performed for research questions 1-5. The results of these analyses were used by the researcher to interpret and report the findings of the research.

<table>
<thead>
<tr>
<th>Research Analyze Question</th>
<th>Research Questions</th>
<th>Statistics Used to Research</th>
</tr>
</thead>
</table>
| 1                         | What are the perceptions of Ohio principals in schools which include at least one primary grade level regarding their knowledge of specific elements relating to special education? | • Percent for each questionnaire alternative to indicate respondent level of knowledge for the first 24 items  
• Means, standard deviations, skewness, kurtosis, standard error of measurement, and histograms on the data collected for each questionnaire item 1-24 |
| 2                         | Do significant differences exist in the perceptions of Ohio principals in schools which include at least one primary grade level regarding their knowledge of specific elements relating to special education according to demographic characteristics? | • One-way analysis of variance (ANOVA) to determine differences between means generated from specific questionnaire items 1-24 with respect to demographic characteristics |

*Table 3.1* Data Analysis Strategies by Research Question
Table 3.1 Continued

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>What are the perceptions of Ohio principals in schools which include at least one primary grade level regarding the importance of preparation for specific elements relating to special education?</td>
</tr>
<tr>
<td>4</td>
<td>Do significant differences exist in the perceptions of Ohio principals in schools which include at least one primary grade level regarding the importance of preparation for specific elements relating to special education according to demographic characteristics?</td>
</tr>
<tr>
<td>5</td>
<td>Is there a relationship between the perceptions of Ohio principals in schools which include at least one primary grade level regarding their knowledge of and importance of preparation for specific elements relating to special education?</td>
</tr>
<tr>
<td>6</td>
<td>What is the reliability of the survey questionnaire?</td>
</tr>
<tr>
<td>7</td>
<td>What types of comments or additional information did the respondents provide?</td>
</tr>
</tbody>
</table>
Chapter 4

RESULTS OF THE STUDY

Introduction

The researcher used the sequence of research questions to guide the presentation of the results of the study. The statistical approaches described in Chapter 3 were used to analyze the research questions. Specifically, the researcher began by reporting descriptive statistics regarding demographic information from principals about each of their schools, as well as their professional information. Frequency, percent, valid percent, and cumulative percent were provided for each. For research questions 1 and 3, data were analyzed to identify the percentage for each questionnaire alternative selected by respondents for the first 24 items. In addition, the means, standard deviations, skewness, kurtosis, standard errors of measurement, and histograms of the data were also collected. The researcher examined whether differences existed among the group means in research questions 2 and 4. According to demographic characteristics the researcher used analysis of variance (ANOVA) as the primary statistical test when various demographic characteristics served as independent variables and items 1-24 served as dependent variables. For research question 5, Pearson Product-Moment Correlation was used to describe the correlations between the principal knowledge of and their perception
of importance of preparation for each item. Exploratory factor analysis was also performed as part of research question 5 in an attempt to reduce the set of 24 variables to a smaller number of common factors. Next, reliability of the scores was explored through Cronbach’s alpha coefficient for research question 6. Finally, examples of quotations from the questionnaire, which requested comments or additional information, were presented as a response to research question 7.

Data Analysis

Demographic Data: To describe the population of the study according to a predetermined set of demographic factors (type of district, grade levels included in school, current adequate yearly progress status relating to students with disabilities, student enrollment of school, percentage of student enrollment identified with a disability, disability categories served, state in which initial principal licensure earned, sources of information regarding special education, years completed as a principal, years of professional experience in public schools, average percentage of work day spent on special education).

Presented below in Tables 4.1-4.11 is an analysis of the cumulative frequency distribution of the demographic factors. These were gathered through questions 25 -35 of the survey questionnaire. Missing data are also reported.
In Ohio, there were a total of 1846 schools which included at least one primary
grade level (kindergarten, first, second and/or third grade) in city, exempted village, and
local school districts. Therefore, 58.072 percent of the districts were city, 4.767 percent
were exempted village, and 37.161 percent were local. As Table 4.1 shows, principals
from city districts (49.5%) responded at a lower average than the overall mean of the
State of Ohio. However, principals from exempted villages (8.2%) and local districts
(43.3%) replied at a higher average than the mean in the state. There was no missing or
unusable data.

<table>
<thead>
<tr>
<th>According to Type of District</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>City</td>
<td>96</td>
<td>49.5</td>
<td>49.5</td>
<td>49.5</td>
</tr>
<tr>
<td>Exempted Village</td>
<td>16</td>
<td>8.2</td>
<td>8.2</td>
<td>57.7</td>
</tr>
<tr>
<td>Local</td>
<td>82</td>
<td>42.3</td>
<td>42.3</td>
<td>100.0</td>
</tr>
<tr>
<td>Missing System</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>194</td>
<td>100.0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Table 4.1* Cumulative Frequency Distribution of Respondent Demographic Factor of Type of District

As reported in Chapter 1, the NCLB mandates are clear that the academic
progress of all students is critical. Research shows the importance of students in the
primary grades being proficient in reading to their current and future academic success.
The purpose of the research study was specifically designed to gain insight into and
accurately depict the perceptions of principals of schools in Ohio which include primary
grade levels regarding special education. The principals of these schools were part of
city, exempted village, and local districts. The frames of city, exempted village, and local school districts were accessed from the Ohio Educational Directory System (OEDS), which is public information developed and provided by the Ohio Department of Education (ODE). The frames of the principals were also obtained from the OEDS through the ODE website. Information gathered from these was the most accurate data available. To verify the accuracy, questionnaire item 26 requested the principal provide the grade levels in their school. According to the summary provided in Table 4.2 all (100.0%) of responding principals had primary grade levels included in their school. There was no missing or unusable data.

<table>
<thead>
<tr>
<th>According to Primary Grade Levels Included in School</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>194</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
</tr>
<tr>
<td>No</td>
<td>0</td>
<td>0.0</td>
<td>0.0</td>
<td></td>
</tr>
<tr>
<td>Missing System</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>194</td>
<td>100.0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 4.2 Cumulative Frequency Distribution of Respondent Demographic Factor of Primary Grade Levels Included in School

According to No Child Left Behind (NCLB) Act (2001), schools are responsible for the academic progress of all students in the areas of reading and math. Data regarding adequate yearly progress (AYP) are disaggregated and reported for students who are economically disadvantaged, disabled, limited English proficient, as well as by gender, race and ethnicity. Table 4.3 captures the status of the schools regarding students with
disabilities. The majority of schools did not meet AYP in this category. This included 81 schools (41.8%). This was followed by 73 (37.6%) of schools who did meet AYP for students with disabilities. Finally, AYP was not applicable to 40 (20.6%) of schools.

There was no unusable or missing data.

<table>
<thead>
<tr>
<th>According to Current Adequate Yearly Progress (AYP) Status for Students with Disabilities</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Did Not Meet</td>
<td>81</td>
<td>41.8</td>
<td>41.8</td>
<td>41.8</td>
</tr>
<tr>
<td>Met</td>
<td>73</td>
<td>37.6</td>
<td>37.6</td>
<td>79.4</td>
</tr>
<tr>
<td>Not Applicable</td>
<td>40</td>
<td>20.6</td>
<td>20.6</td>
<td>100.0</td>
</tr>
<tr>
<td>Missing</td>
<td>System</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>194</td>
<td>100.0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 4.3 Cumulative Frequency Distribution of Respondent Demographic Factor of Adequate Yearly Progress (AYP) Status for Students with Disabilities

As reflected in Table 4.4, principals reported the total number of students enrolled in the school according to three categories: 0-399 students; 400-599 students; or over 599 students. The highest frequency of student enrollment was in the 0-399 category (45.4%). The next most frequent was the 400-599 category (39.7%). Finally, the least number of schools had a student enrollment over 599 (14.9%).
For survey questionnaire item 29, the respondents were asked to provide the percentage of the student enrollment of their school identified with a disability. Based upon results, the researcher then placed the responses in one of four categories: 0-9 percent; 10-19 percent; 20-29 percent; or 30-75 percent. Table 4.5 describes the results.

The majority of schools had a special education population between 10-19 percent. This included 106 (54.6%) schools. This was followed by 60 schools (30.9%) with between 0-9 percent, twenty schools (10.3%) between 20-29 percent, and five schools (2.6%) between 30-75 percent. Three respondents (1.5%) did not provide a percentage.

<table>
<thead>
<tr>
<th>According to Percent of Students Enrolled Identified with a Disability</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-9%</td>
<td>60</td>
<td>30.9</td>
<td>31.4</td>
<td>31.4</td>
</tr>
<tr>
<td>10-19%</td>
<td>106</td>
<td>54.6</td>
<td>55.5</td>
<td>86.9</td>
</tr>
<tr>
<td>20-29%</td>
<td>20</td>
<td>10.3</td>
<td>10.5</td>
<td>97.4</td>
</tr>
<tr>
<td>30-75%</td>
<td>5</td>
<td>2.6</td>
<td>2.6</td>
<td>100</td>
</tr>
<tr>
<td>Missing</td>
<td>System</td>
<td>3</td>
<td>1.5</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>191</td>
<td>98.5</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Table 4.5* Cumulative Frequency Distribution of Respondent Demographic Factor of Percent of Students Enrolled Identified with a Disability
The federal government has identified 12 categories of disability: autism; emotional disturbance; cognitive disability/ mental retardation; deaf-blindness; hearing impaired/ deaf; learning disability; multiple disability; orthopedic/ physical disability; other health impaired; speech/ language/ communication disorder; traumatic brain injury; and vision impaired/ blind. Respondents reported the disability categories which described students who are currently served at their school. They were asked to check all that applied. The respondents were not, however, asked to provide exact percentages of each category of disability. Table 4.6 portrays the results. Five categories of disability were present in 75 percent or more of the schools. This included cognitive disability/mental retardation (79.9%), other health impaired (87.1%), autism spectrum disorder (87.6%), learning disability (96.9%), and speech/ language/ communication disorder (97.9%). Four categories of disability were present in 21-74 percent of the schools. This included orthopedic/ physical disability (39.7%), hearing impaired/ deaf (41.8%), multiple disability (54.6), and emotional disturbance (60.3%). There were three categories which were present in less than 21 percent of the schools. This included deaf-blindness (9.8%), traumatic brain injury (18%), and vision impaired/ blind (20.6%). There was no unusable or missing data.
According to Disability Category of Students Currently Served in the School

<table>
<thead>
<tr>
<th>Disability Category</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Autism Spectrum Disorder</td>
<td>170</td>
<td>87.6</td>
<td>87.6</td>
</tr>
<tr>
<td>Emotional Disturbance</td>
<td>117</td>
<td>60.3</td>
<td>60.3</td>
</tr>
<tr>
<td>Cognitive Disability/ Mental Retardition</td>
<td>155</td>
<td>79.9</td>
<td>79.9</td>
</tr>
<tr>
<td>Deaf-Blindness</td>
<td>19</td>
<td>9.8</td>
<td>9.8</td>
</tr>
<tr>
<td>Hearing Impaired/Deaf</td>
<td>81</td>
<td>41.8</td>
<td>41.8</td>
</tr>
<tr>
<td>Learning Disability</td>
<td>188</td>
<td>96.9</td>
<td>96.9</td>
</tr>
<tr>
<td>Multiple Disability</td>
<td>106</td>
<td>54.6</td>
<td>54.6</td>
</tr>
<tr>
<td>Orthopedic/Physical Disability</td>
<td>77</td>
<td>39.7</td>
<td>39.7</td>
</tr>
<tr>
<td>Other Health Impaired</td>
<td>169</td>
<td>87.1</td>
<td>87.1</td>
</tr>
<tr>
<td>Speech/Language/Communication Disorder</td>
<td>190</td>
<td>97.9</td>
<td>97.9</td>
</tr>
<tr>
<td>Traumatic Brain Injury</td>
<td>35</td>
<td>18.0</td>
<td>18.0</td>
</tr>
<tr>
<td>Vision Impaired/Blind</td>
<td>40</td>
<td>20.6</td>
<td>20.6</td>
</tr>
<tr>
<td>Missing System</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>194</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

Table 4.6 Cumulative Frequency Distribution of Respondent Demographic Factor of Disability Category of Students Currently Served in the School

With regard to initial principal licensure, 189 (97.4%) of respondents earned theirs in Ohio, as summarized in Table 4.7. There was one respondent for each of the following states: California (.5%); Florida (.5%); Indiana (.5%); Kentucky (.5%); and New York (.5%). There was no unusable or missing data.
Table 4.7 Cumulative Frequency Distribution of Respondent Demographic Factor of Initial Principal Licensure

<table>
<thead>
<tr>
<th>According to Initial Principal Licensure</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ohio</td>
<td>189</td>
<td>97.4</td>
<td>97.4</td>
<td>97.4</td>
</tr>
<tr>
<td>California</td>
<td>1</td>
<td>.5</td>
<td>.5</td>
<td>97.9</td>
</tr>
<tr>
<td>Florida</td>
<td>1</td>
<td>.5</td>
<td>.5</td>
<td>98.5</td>
</tr>
<tr>
<td>Indiana</td>
<td>1</td>
<td>.5</td>
<td>.5</td>
<td>99.0</td>
</tr>
<tr>
<td>Kentucky</td>
<td>1</td>
<td>.5</td>
<td>.5</td>
<td>99.5</td>
</tr>
<tr>
<td>New York</td>
<td>1</td>
<td>.5</td>
<td>.5</td>
<td>100.0</td>
</tr>
<tr>
<td>Missing System</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>194</td>
<td>100.0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 4.8 summarizes the ways the respondents have learned about special education. Principals were asked to identify their sources of information regarding special education. They were to check all that applied. The majority of respondents (87.1%) indicated that while principal, they consulted with personnel within the school district who were knowledgeable about special education. Five additional sources of information were identified by at least 50 percent of the principals; coursework in special education in their undergraduate program (52.1%); coursework in special education in their principal preparation program (56.7%); information gathered on their own (59.3%) through dissertations in the field (1.0%), videos (1.0%), internet (29%), books (31%), research journals (36%), no clarification (39%), and workshops (60%); professional development provided by the school district (66.5%); and experience with special education as a general education teacher (76.8%). There were also six other sources of information identified by principals at frequencies below 50 percent: graduate degree in special education (4.1%); undergraduate degree in special education (18%); an
acquaintance (12.4%); experience as a special education teacher (17%); a family member (19.1%); and experience as a special education administrator (21.1%). There was no unusable or missing data.

<table>
<thead>
<tr>
<th>According to Sources of Information Regarding Special Education</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>A Family Member</td>
<td>37</td>
<td>19.1</td>
<td>19.1</td>
</tr>
<tr>
<td>An Acquaintance</td>
<td>24</td>
<td>12.4</td>
<td>12.4</td>
</tr>
<tr>
<td>Coursework in Special Education in Principal Preparation Program</td>
<td>110</td>
<td>56.7</td>
<td>56.7</td>
</tr>
<tr>
<td>Coursework in Special Education in Undergraduate Program</td>
<td>101</td>
<td>52.1</td>
<td>52.1</td>
</tr>
<tr>
<td>Experience with Special Education as a General Education Teacher</td>
<td>149</td>
<td>76.8</td>
<td>76.8</td>
</tr>
<tr>
<td>Experience in Special Education Administration</td>
<td>41</td>
<td>21.1</td>
<td>21.1</td>
</tr>
<tr>
<td>Experience as a Special Education Teacher</td>
<td>33</td>
<td>17.0</td>
<td>17.0</td>
</tr>
<tr>
<td>Graduate Degree in Special Education</td>
<td>8</td>
<td>4.1</td>
<td>4.1</td>
</tr>
<tr>
<td>Information on Own</td>
<td>115</td>
<td>59.3</td>
<td>59.3</td>
</tr>
<tr>
<td>No Clarification</td>
<td>39</td>
<td>20.1</td>
<td>20.1</td>
</tr>
<tr>
<td>Research Journals</td>
<td>36</td>
<td>18.6</td>
<td>18.6</td>
</tr>
<tr>
<td>Books</td>
<td>31</td>
<td>16.0</td>
<td>16.0</td>
</tr>
<tr>
<td>Workshops</td>
<td>60</td>
<td>30.9</td>
<td>30.9</td>
</tr>
<tr>
<td>Internet</td>
<td>29</td>
<td>14.9</td>
<td>14.9</td>
</tr>
<tr>
<td>Videos</td>
<td>2</td>
<td>1.0</td>
<td>1.0</td>
</tr>
<tr>
<td>Dissertation in the Field</td>
<td>2</td>
<td>1.0</td>
<td>1.0</td>
</tr>
<tr>
<td>Professional Development Provided by the School District</td>
<td>129</td>
<td>66.5</td>
<td>66.5</td>
</tr>
<tr>
<td>Undergraduate Degree in Special Education</td>
<td>18</td>
<td>9.3</td>
<td>9.3</td>
</tr>
<tr>
<td>While Principal, Consulted with Personnel within the School District who were Knowledgeable about Special Education</td>
<td>169</td>
<td>87.1</td>
<td>87.1</td>
</tr>
<tr>
<td>Other</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Missing System</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>194</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

Table 4.8  Cumulative Frequency Distribution of Respondent Demographic Factor of Sources of Information Regarding Special Education
For survey questionnaire item 33, respondents were asked to provide the number of years they had completed as a principal. Based upon results, the researcher then placed the responses in one of four categories: 0-9 years; 10-19 years; 20-29 years; or 30 years and up. As reported in Table 4.9, the majority of respondents had between 0-9 years (50.5%) of experience. The frequency decreased from there. Sixty-four principals (33%) had between 10-19 years, 27 (13.9%) had between 20-29 years, and five (2.6%) principals had 30 years or more experience. There was no unusable or missing data.

<table>
<thead>
<tr>
<th>According to Number of Years Completed as a Principal</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-9 years</td>
<td>98</td>
<td>50.5</td>
<td>50.5</td>
<td>50.5</td>
</tr>
<tr>
<td>10-19 years</td>
<td>64</td>
<td>33.0</td>
<td>33.0</td>
<td>83.5</td>
</tr>
<tr>
<td>20-29 years</td>
<td>27</td>
<td>13.9</td>
<td>13.9</td>
<td>97.4</td>
</tr>
<tr>
<td>30 years &amp; up</td>
<td>5</td>
<td>2.6</td>
<td>2.6</td>
<td>100.0</td>
</tr>
<tr>
<td>Missing System</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>194</td>
<td>100.0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 4.9 Cumulative Frequency Distribution of Respondent Demographic Factor of Number of Years Completed as a Principal

Respondents were asked to provide the number of years of professional experience they had completed in public schools for survey questionnaire item 34. This included all teaching and administrative experience. Based upon results, the researcher then placed the responses in one of four categories: 0-9 years; 10-19 years; 20-29 years; or 30 years and up. As provided in Table 4.10, the majority of respondents had between 20-29 years (33.0%) years of experience. Sixty respondents (30.9%) had between 10-19
years, 55 (28.4%) had 30 or more years, and 15 (7.7%) principals had between 0-9 years of professional experience in public education. There was no unusable or missing data.

<table>
<thead>
<tr>
<th>According to Number of Years Professional Experience Completed in Public Schools</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-9 years</td>
<td>15</td>
<td>7.7</td>
<td>7.7</td>
<td>7.7</td>
</tr>
<tr>
<td>10-19 years</td>
<td>60</td>
<td>30.9</td>
<td>30.9</td>
<td>38.7</td>
</tr>
<tr>
<td>20-29 years</td>
<td>64</td>
<td>33.0</td>
<td>33.0</td>
<td>71.6</td>
</tr>
<tr>
<td>30 years &amp; up</td>
<td>55</td>
<td>28.4</td>
<td>28.4</td>
<td>100.0</td>
</tr>
<tr>
<td>Missing System</td>
<td>0</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Total</td>
<td>194</td>
<td>100.0</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

*Table 4.10* Cumulative Frequency Distribution of Respondent Demographic Factor of Number of Years Professional Experience Completed in Public Schools

Finally, the respondents were asked to provide the percentage of their work day as a principal typically spent on elements of special education. Based upon results, the researcher then placed the responses in one of six categories: 0-9 percent, 10-19 percent; 20-29 percent; 30-39 percent; 40-49 percent; or 50 percent and up. Table 4.11 reflects these percentages. The most frequent response was between 10-19 percent (36.1%) of their day was spent on elements of special education. Next, 20-29 percent (24.2%), then 0-9 percent (20.6%), followed by 30-39 (7.7%) and 50 percent and up (7.7%), and 40-49 percent (3.6%). There was no unusable or missing data.
According to Percent of Work Day as a Principal Typically Spent on Elements of Special Education

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-9%</td>
<td>40</td>
<td>20.6</td>
<td>20.6</td>
</tr>
<tr>
<td>10-19%</td>
<td>70</td>
<td>36.1</td>
<td>36.1</td>
</tr>
<tr>
<td>20-29%</td>
<td>47</td>
<td>24.2</td>
<td>24.2</td>
</tr>
<tr>
<td>30-39%</td>
<td>15</td>
<td>7.7</td>
<td>7.7</td>
</tr>
<tr>
<td>40-49%</td>
<td>7</td>
<td>3.6</td>
<td>3.6</td>
</tr>
<tr>
<td>50% &amp; up</td>
<td>15</td>
<td>7.7</td>
<td>7.7</td>
</tr>
<tr>
<td>Missing System</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>194</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

Table 4.11  Cumulative Frequency Distribution of Respondent Demographic Factor of Percent of Work Day as a Principal Typically Spent on Elements of Special Education

Research Question 1: What are the perceptions of Ohio principals in schools which include at least one primary grade level regarding their knowledge of specific elements relating to special education?

The purpose of research questions 1 was to describe the self-reported perceptions of Ohio principals in schools which include at least one primary grade level regarding their knowledge of specific elements relating to special education. A multi-anchored scale, two six-point summated ratings were provided in Part I. There were a total of 24 elements. The numerical values were assigned by principals as responses to questions on the questionnaire regarding their knowledge of specific elements of special education in terms of: expert, considerable knowledge, general knowledge, minimal knowledge, recognize only, or no familiarity at all. The percent for each questionnaire alternative to
indicate respondent levels for the 24 elements was reported. The most frequent response, or modal percentage, is presented in bold type for each survey questionnaire item.

Next, the means, standard deviations, skewness, kurtosis, and standard errors of the data were collected for those items. In addition, histograms were provided as a visual graphic to explore the degree to which the data are normally distributed.

Table 4.12 portrays the percentage of level of agreement for each response to survey questionnaire items 1-24 regarding level of principal knowledge of elements of special education. The numbers in bold type indicate the modal percentage of response for the level of agreement.

<table>
<thead>
<tr>
<th>Item</th>
<th>N</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Specific legislation impacting students with disabilities</td>
<td>194</td>
<td>2</td>
<td>2</td>
<td>12</td>
<td><strong>109</strong></td>
<td>65</td>
<td>4</td>
</tr>
<tr>
<td>Characteristics of different disabilities</td>
<td>194</td>
<td>0</td>
<td>0</td>
<td>10</td>
<td>82</td>
<td><strong>94</strong></td>
<td>8</td>
</tr>
<tr>
<td>Selecting effective staff for special education</td>
<td>194</td>
<td>2</td>
<td>2</td>
<td>6</td>
<td>51</td>
<td><strong>114</strong></td>
<td>19</td>
</tr>
<tr>
<td>Evaluating the effectiveness of special education staff</td>
<td>194</td>
<td>0</td>
<td>2</td>
<td>7</td>
<td>68</td>
<td><strong>97</strong></td>
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<tr>
<td>Identifying professional development needs of all staff regarding special education</td>
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<td>3</td>
<td>18</td>
<td><strong>93</strong></td>
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<td>Timeline in completing a multifactored evaluation (MFE)/ evaluation team report (ETR)</td>
<td>194</td>
<td>1</td>
<td>1</td>
<td>6</td>
<td>53</td>
<td><strong>88</strong></td>
<td>45</td>
</tr>
<tr>
<td>Coordinating MFE/ ETR meetings</td>
<td>194</td>
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<td>9</td>
<td>61</td>
<td><strong>91</strong></td>
<td>31</td>
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Table 4.12 Number of Respondent Level of Agreement for Each Alternative of Individual Questionnaire Items Regarding Principal Knowledge Of Specific Elements Relating to Special Education

Continued
Table 4.12 Continued

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<tr>
<th>Topic</th>
<th>Total</th>
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<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
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<tbody>
<tr>
<td>Interpreting MFE/ETRs</td>
<td>194</td>
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<td>0</td>
<td>17</td>
<td>72</td>
<td>86</td>
<td>19</td>
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<td>Collaborating with parents throughout the evaluation process</td>
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<td>45</td>
<td>112</td>
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<td>Timeline in developing the individualized education program (IEP)</td>
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<td>1</td>
<td>69</td>
<td>94</td>
<td>29</td>
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<tr>
<td>Coordinating IEP meetings</td>
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<td>0</td>
<td>4</td>
<td>67</td>
<td>100</td>
<td>23</td>
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<tr>
<td>Interpreting IEPs</td>
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<td>0</td>
<td>2</td>
<td>55</td>
<td>116</td>
<td>21</td>
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<td>Collaborating with parents throughout the IEP process</td>
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<td>0</td>
<td>3</td>
<td>49</td>
<td>111</td>
<td>31</td>
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<tr>
<td>Supporting teachers in the implementation of individualized behavior plans</td>
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<td>0</td>
<td>0</td>
<td>6</td>
<td>52</td>
<td>107</td>
<td>19</td>
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<tr>
<td>Procedures used in disciplining students with disabilities</td>
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<td>0</td>
<td>7</td>
<td>56</td>
<td>103</td>
<td>28</td>
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<tr>
<td>Collaborating with parents about discipline of students with disabilities</td>
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<td>0</td>
<td>4</td>
<td>68</td>
<td>95</td>
<td>27</td>
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<td>Procedures for mediation when parents are exercising their due process rights</td>
<td>194</td>
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<td>8</td>
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<td>85</td>
<td>45</td>
<td>6</td>
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<td>Procedures involved in a due process hearing</td>
<td>194</td>
<td>4</td>
<td>19</td>
<td>56</td>
<td>72</td>
<td>40</td>
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<tr>
<td>Intervention strategies to use before referring a student for an evaluation</td>
<td>194</td>
<td>0</td>
<td>1</td>
<td>9</td>
<td>53</td>
<td>111</td>
<td>20</td>
<td></td>
<td></td>
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<tr>
<td>Scheduling time for collaboration among general education and special education teachers</td>
<td>194</td>
<td>0</td>
<td>1</td>
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<td>46</td>
<td>120</td>
<td>24</td>
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<td>Providing a range of educational placement options for students with disabilities</td>
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<td>0</td>
<td>2</td>
<td>14</td>
<td>81</td>
<td>78</td>
<td>19</td>
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<td>Curricular differentiation which supports the diverse needs of students</td>
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<td>0</td>
<td>1</td>
<td>9</td>
<td>70</td>
<td>100</td>
<td>14</td>
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<td>Instructional differentiation which supports the diverse needs of students</td>
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<td>0</td>
<td>1</td>
<td>7</td>
<td>67</td>
<td>106</td>
<td>13</td>
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<td>Differentiation in grading practices for students with disabilities</td>
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<td>1</td>
<td>14</td>
<td>80</td>
<td>89</td>
<td>10</td>
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</tr>
</tbody>
</table>

Note. Bolded number indicates the modal level of response.

* No familiarity=1; Recognize only=2; Minimal understanding=3; General knowledge=4; Considerable knowledge=5; Expert=6.
Table 4.13 summarizes the mean, standard deviation, skewness, kurtosis, and standard errors for survey questionnaire items 1-24 regarding level of principal knowledge of elements of special education.

<table>
<thead>
<tr>
<th>Item</th>
<th>Measures of Central Tendency and Deviation from Normality</th>
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<tr>
<td></td>
<td>N</td>
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<tr>
<td>Specific legislation impacting students with disabilities</td>
<td>194</td>
</tr>
<tr>
<td>Characteristics of different disabilities</td>
<td>194</td>
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<tr>
<td>Selecting effective staff for special education</td>
<td>194</td>
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<tr>
<td>Evaluating the effectiveness of special education staff</td>
<td>194</td>
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<tr>
<td>Identifying professional development needs of all staff regarding special education</td>
<td>194</td>
</tr>
<tr>
<td>Timeline in completing a multifactored evaluation (MFE)/ evaluation team report (ETR)</td>
<td>194</td>
</tr>
<tr>
<td>Coordinating MFE/ ETR meetings</td>
<td>194</td>
</tr>
<tr>
<td>Interpreting MFE/ ETRs</td>
<td>194</td>
</tr>
<tr>
<td>Collaborating with parents throughout the evaluation process</td>
<td>194</td>
</tr>
<tr>
<td>Timeline in developing the individualized education program (IEP)</td>
<td>194</td>
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</table>

Continued

*Table 4.13* Mean/Standard Deviation, Skewness/Standard Error, and Kurtosis/Standard Error of Individual Questionnaire Items Regarding Principal Knowledge Of Specific Elements Relating to Special Education
Table 4.13 Continued

<table>
<thead>
<tr>
<th>Activity</th>
<th>N</th>
<th>M</th>
<th>SE</th>
<th>T</th>
<th>Rho</th>
<th>p</th>
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<tbody>
<tr>
<td>Coordinating IEP meetings</td>
<td>194</td>
<td>4.732</td>
<td>.690</td>
<td>.028</td>
<td>.175</td>
<td>-.341</td>
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<tr>
<td>Interpreting IEPs</td>
<td>194</td>
<td>4.804</td>
<td>.629</td>
<td>-.075</td>
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<td>-.081</td>
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<td>Collaborating with parents throughout the IEP process</td>
<td>194</td>
<td>4.876</td>
<td>.679</td>
<td>-.144</td>
<td>.175</td>
<td>-.145</td>
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<tr>
<td>Supporting teachers in the implementation of individualized behavior</td>
<td>194</td>
<td>4.716</td>
<td>.680</td>
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<td>.175</td>
<td>-.041</td>
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<td>plans</td>
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<td>Procedures used in disciplining students with disabilities</td>
<td>194</td>
<td>4.783</td>
<td>.730</td>
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<td>.175</td>
<td>-.162</td>
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<tr>
<td>Collaborating with parents about discipline of students with disabilities</td>
<td>194</td>
<td>4.747</td>
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<td>-.481</td>
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<tr>
<td>Procedures for mediation when parents are exercising their due process rights</td>
<td>194</td>
<td>3.943</td>
<td>.905</td>
<td>-.141</td>
<td>.175</td>
<td>.060</td>
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<tr>
<td>Procedures involved in a due process hearing</td>
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<td>3.690</td>
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<td>.175</td>
<td>-.196</td>
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<tr>
<td>Intervention strategies to use before referring a student for an evaluation</td>
<td>194</td>
<td>4.721</td>
<td>.730</td>
<td>-.562</td>
<td>.175</td>
<td>.753</td>
</tr>
<tr>
<td>Scheduling time for collaboration among general education and special education teachers</td>
<td>194</td>
<td>4.840</td>
<td>.667</td>
<td>-.544</td>
<td>.175</td>
<td>1.414</td>
</tr>
<tr>
<td>Providing a range of educational placement options for students with disabilities</td>
<td>194</td>
<td>4.505</td>
<td>.809</td>
<td>-.165</td>
<td>.175</td>
<td>.131</td>
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<tr>
<td>Curricular differentiation which supports the diverse needs of students</td>
<td>194</td>
<td>4.603</td>
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<td>-.369</td>
<td>.175</td>
<td>.454</td>
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<tr>
<td>Instructional differentiation which supports the diverse needs of students</td>
<td>194</td>
<td>4.634</td>
<td>.686</td>
<td>-.446</td>
<td>.175</td>
<td>.703</td>
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<tr>
<td>Differentiation in grading practices for students with disabilities</td>
<td>194</td>
<td>4.479</td>
<td>.728</td>
<td>-.293</td>
<td>.175</td>
<td>.162</td>
</tr>
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</table>
Figures 4.1-4.24 visually explore the distributional shapes through histograms. They show the patterns of responses for survey questionnaire items 1-24 regarding principal knowledge of elements of special education. The overlying line in the histograms represent a normal curve, with the mean and standard deviation of the data.
Figure 4.5 Histogram for Knowledge of Identifying Professional Development Needs of All Staff Regarding Special Education

Figure 4.6 Histogram for Knowledge of Timelines in Completing a Multifaceted Evaluation (MFE)/Evaluation Team Report (ETR)

Figure 4.7 Histogram for Knowledge of Coordinating MFE/ETR Meetings

Figure 4.8 Histogram for Knowledge of Interpreting MFEs/ETRs

Figure 4.9 Histogram for Knowledge of Collaborating with Parents Throughout the Evaluation Process

Figure 4.10 Histogram for Knowledge of Timelines in Developing the Individualized Education Program (IEP)
Figure 4.17 Histogram for Knowledge of Procedures for Mediation When Parents are Exercising Their Due Process Rights

Figure 4.18 Histogram for Knowledge of Procedures Involved in a Due Process Hearing

Figure 4.19 Histogram for Knowledge of Intervention Strategies to Use Before Referring a Student for an Evaluation

Figure 4.20 Histogram for Knowledge of Scheduling Time for Collaboration Among General Education and Special Education Teachers

Figure 4.21 Histogram for Knowledge of Providing a Range of Educational Placement Options for Students with Disabilities

Figure 4.22 Histogram for Knowledge of Curricular Differentiation Which Supports the Diverse Needs of Students
Research Question 2: Do significant differences exist in the perceptions of Ohio principals in schools which include at least one primary grade level regarding their knowledge of specific elements relating to special education according to demographic characteristics?

The researcher was interested in examining whether significant differences existed among group means when the various demographic factors (type of district, current adequate yearly progress status relating to students with disabilities, student enrollment of school, percentage of student enrollment identified with a disability, state in which initial principal licensure earned, years completed as a principal, years of professional experience in public schools, average percentage of work day spent on special education) served as independent variables and knowledge of the 24 elements of
special education served as dependent variables. Data were presented in Tables 4.1, 4.3, 4.4, 4.5, 4.7, 4.9, 4.10, and 4.11. Data from Tables 4.2, 4.6, and 4.8 were not included in these analyses. Data was not included from Table 4.2 because this question was designed to verify whether the OEDS, posted by the ODE, accurately provided access to the target population, which it did. Question 30 on the survey questionnaire asked respondents to identify the disability categories of students who were currently served at their school by placing a check mark next to all that applied. The principals were not asked to provide percentages for each category. The results were presented in Table 4.6. The data from Table 4.8 also was not included in the analyses. This survey questionnaire item asked respondents to identify their sources of information regarding special education. They were asked to check all that applied. This was used to identify their sources, rather than to provide some kind of ranking.

Regarding demographic factors, the principals from city districts (49.5%) responded at a lower average than the overall mean of the State of Ohio. However, principals from exempted villages (8.2%) and local districts (43.3%) replied at a higher average than the mean in the state. The majority of schools did not meet AYP in the category relating to students with disabilities (41.8%). The highest frequency of student enrollment in schools was in the 0-399 category (45.4%). The majority of schools (54.6%) had a special education population between 10-19 percent, and the most frequent response regarding the percent of their day principals spent on elements of special education was between 10-19 percent (36.1%) of their day was spent on elements of special education. With regard to initial principal licensure, 189 (97.4%) of respondents
earned theirs in Ohio. The majority of respondents had between 0-9 years (50.5%) of experience as principals, and between 20-29 years (33.0%) years of experience in public education.

The One-Way Analysis of Variance (ANOVA) was used for analysis. Ary, Jacobs & Sorenson (2010) describe it as a statistical procedure used to analyze the data from a research study which has no less than three groups. It is called one-way ANOVA because there is only one independent variable and one dependent variable. In analysis of variance, a ratio comparing observed differences to the error term is used to test hypotheses regarding differences among groups. The basic rationale of ANOVA is that the total variance of all subjects in an experiment can be subdivided by variance between groups and variance within groups.

The null hypothesis in a one-way ANOVA is that the populations represented by the samples all have the same means. Rejecting the null hypothesis means that the populations do not all have the same mean. Typically, if the probability value is .05 or lower, the null hypothesis is rejected. Further, George and Mallory (2007) concluded that if the calculation for an ANOVA identifies a statistical significance or “p” value that was less than .05, then the result is considered “statistically significant.” If the p value is between .05 and .10, then the result is considered “marginally significant.” Therefore, the smaller the value, the greater confidence the researcher has that the findings are valid.

Additional tests were conducted with ones that were determined to be statistically significant. Post hoc investigations assisted the researcher in understanding why null hypotheses were rejected. There are numerous statistical procedures which exist for
making post hoc comparisons. When a significant difference was found through the use of ANOVA, then post hoc analyses, using the Tukey HSD method, were conducted. This method was selected because it makes an adjustment in the size of the critical value used to determine whether an observed difference between two means is significant, instead of dealing with the problem of an inflated Type I error risk by adjusting the level of significance Huck (2008). In the cases where there were fewer than three levels of a demographic factor, post hoc analyses could not be performed. This applied specifically to questionnaire item 31, relating to state where initial principal licensure was earned.

Effect size of the data were also explored. Ary, et al (2010) explains that the effect size estimate used in ANOVA is called eta squared calculation ($\eta^2$). The sum of squares ($SS$) between groups is a systematic variation, understood to be due to the effects of the treatment. When the $SS$ is divided between groups by the total sum of squares, the proportion of the total variability of the dependent variable that is accounted for by the independent variable is determined. This index is referred to as $\eta^2$.

**Type of District**

ANOVA were conducted to explore the impact of type of school district on levels of knowledge of the 24 specific elements relating to special education. Participants indicated which one of three groups accurately depicted the kind of school district which their school was located: city school district; exempted village school district; or local school district.

The ANOVAs revealed there were no statistically significant differences ($p>.05$) for the three groups relating to specific legislation impacting students with disabilities,
characteristics of different disabilities, selecting effective staff for special education, evaluating the effectiveness of special education staff, identifying professional development needs of all staff regarding special education, timelines in completing a multifactored evaluation (MFE)/evaluation team report (ETR), coordinating MFE/ETR meetings, interpreting MFE/ETRs, collaborating with parents throughout the evaluation process, timelines in developing the individualized education program, coordinating IEP meetings, interpreting IEPs, collaborating with parents throughout the IEP process, collaborating with parents about discipline of students with disabilities, procedures for mediation when parents are exercising their due process rights, procedures involved in a due process hearing, intervention strategies to use before referring a student for an evaluation, scheduling time for collaboration among general and special education teachers, providing a range of educational placement options for students with disabilities, curricular differentiation which supports the diverse needs of students, instructional differentiation which supports the diverse needs of students, or differentiation in grading practices for students with disabilities. However, there was marginal significance (p between .05-.10) between mean scores for supporting teachers in the implementation of individualized behavior plans, and procedures used in disciplining students with disabilities.

There were none at the statistically significant level (p<.05). Therefore, no post hoc analysis could be performed.
Current AYP Status Relating to Students with Disabilities

ANOVA were performed to examine the effect of *current AYP status relating to students with disabilities* on levels of *knowledge of* the 24 specific elements relating to special education. Participants indicated which one of three groups accurately depicted the current rating of their school: did not meet; met; or not applicable.

The ANOVAs revealed there were no statistically significant differences (p>.05) for the three groups involving *characteristics of different disabilities, evaluating the effectiveness of special education staff, identifying professional development needs of all staff regarding special education, collaborating with parents throughout the evaluation process, timelines in developing the individualized education program, supporting teachers in the implementation of individualized behavior plans, procedures used in disciplining students with disabilities, collaborating with parents about discipline of students with disabilities, scheduling time for collaboration among general and special education teachers, or curricular differentiation which supports the diverse needs of students*. However, there was marginal significance (p between .05-.10) between mean scores for the *selecting effective staff for special education and interpreting IEPs*.

There were significant differences (p<.05) between groups for *specific legislation impacting students with disabilities* [F(2, 191)=3.274, p=.040, η²=.033], *timelines in completing a multifactored evaluation (MFE)/ evaluation team report (ETR)* [F(2, 191)=3.338, p=.038, η²=.034], *coordinating MFE/ETR meetings* [F(2, 191)=3.475, p=.033, η²=.035], *interpreting MFE/ETRs* [F(2, 191)=5.085, p=.007, η²=.051], *coordinating IEP meetings* [F(2, 191)=6.674, p=.002, η²=.065], *collaborating with*
parents throughout the IEP process \( F(2, 191)=5.458, p=.005, \eta^2 = .054 \), procedures for mediation when parents are exercising their due process rights \( F(2, 191)=6.449, p=.002, \eta^2 = .063 \), procedures involved in a due process hearing \( F(2, 191)=6.582, p=.002, \eta^2 = .064 \), intervention strategies to use before referring a student for an evaluation \( F(2, 191)=3.090, p=.048, \eta^2 = .031 \), providing a range of educational placement options for students with disabilities \( F(2, 191)=4.399, p=.014, \eta^2 = .044 \), instructional differentiation which supports the diverse needs of students \( F(2, 191)=3.445, p=.034, \eta^2 = .035 \), and differentiation in grading practices for students with disabilities \( F(2, 191)=4.324, p=.015, \eta^2 = .043 \).

To examine comparisons of each possible pair of levels of the demographic factor found to be significantly different for knowledge of specific elements of special education, post hoc analyses, using Tukey HSD were performed. The analysis indicated that significant differences existed.

For specific legislation impacting students with disabilities significant differences were present between met AYP and not applicable \( (p=.048) \). Respondents whose schools met AYP perceived having measurably more knowledge than those in schools in which AYP was not applicable. Significant differences also existed in timelines in completing a multifactored (MFE)/evaluation team report (ETR) between did not meet AYP and not applicable \( (p=.028) \), and also met AYP and not applicable \( (p=.200) \). Principals of schools which either did not meet or met AYP reported considerably more knowledge than those in schools in which AYP was not applicable. Next, significant differences were present in interpreting MFES/ETRs. This occurred between met AYP and did not meet AYP.


students' knowledge of the special education process was significantly lower in schools where AYP was not met compared to schools where AYP was met or not applicable.

Significant differences existed in coordinating IEP meetings between did not meet and not applicable ($p = .001$). Principals of schools which did not meet AYP believed they had measurably more knowledge than those of schools in which AYP is not applicable. Additionally, significant differences were present in collaborating with parents throughout the IEP process between did not meet AYP and not applicable ($p = .006$). Respondents of schools which did not meet AYP perceived a higher degree of knowledge than those of schools which AYP is not applicable.

Next, significant differences occurred in procedures for mediation when parents are exercising their due process rights between did not meet AYP and not applicable ($p = .001$), and met AYP and not applicable ($p = .035$). Principals of schools which either did not meet or met AYP reported a considerably higher amount of knowledge than those in schools in which AYP was not applicable. There were also significant differences in procedures involved in a due process hearing between did not meet AYP and not applicable ($p = .001$), and between met AYP and not applicable ($p = .017$). Respondents from schools which either did not meet or met AYP reported measurably more knowledge than those in schools in which AYP was not applicable.

Additionally, there were significant differences in intervention strategies to use before referring a student for an evaluation between did not meet AYP and met AYP.
(\(p=.037\)). Principals of schools which did not meet AYP indicated considerably higher levels of knowledge that those from schools which met AYP. Then, there were significant differences in providing a range of educational placement options for students with disabilities between did not meet AYP and met AYP\((p=.036)\), and between did not meet and not applicable \((p=.039)\). In both cases, respondents from schools which did not meet AYP reported measurably higher amounts of knowledge than those from buildings which either met AYP or in which AYP was not applicable. Further, there were significant differences in instructional differentiation which supports the diverse needs of students with disabilities between did not meet AYP and met AYP \((p=.027)\). Principals from schools which did not meet AYP perceived considerably more knowledge than those whose schools met AYP. Finally, significant differences existed in differentiation in grading practices for students with disabilities between did not meet AYP and not applicable \((p=.030)\). Respondents from school which did not meet AYP indicated a measurably higher degree of knowledge than those from schools in which AYP is not applicable.

**Total Student Enrollment in School**

ANOVAs were conducted to explore the impact of total student enrollment in school on levels of knowledge of the 24 specific elements relating to special education. Participants indicated which one of three groups accurately depicted the kind of school district which their school was located: 0-399 students; 400-599 students; or over 599 students.
The ANOVAs revealed there were no statistically significant differences (p>.05) for the three groups relating to specific legislation impacting students with disabilities, characteristics of different disabilities, selecting effective staff for special education, evaluating the effectiveness of special education staff, identifying professional development needs of all staff regarding special education, timelines in completing a multifactored evaluation (MFE)/evaluation team report (ETR), coordinating MFE/ETR meetings, interpreting, collaborating with parents throughout the evaluation process, timelines in developing the individualized education program, coordinating IEP meetings, interpreting IEPs, collaborating with parents throughout the IEP process, supporting teachers in the implementation of individualized behavior plans, procedures for mediation when parents are exercising their due process rights, procedures involved in a due process hearing, intervention strategies to use before referring a student for an evaluation, providing a range of educational placement options for students with disabilities, curricular differentiation which supports the diverse needs of students, instructional differentiation which supports the diverse needs of students, or differentiation in grading practices for students with disabilities. However, there was marginal significance (p between .05-.10) between mean scores for procedures used in disciplining students with disabilities, and scheduling time for collaboration among general and special education teachers.

There was significant differences (p<.05) between groups for collaborating with parents about discipline of students with disabilities \(F(2, 191) =3.622, p=.029, \eta^2=.037\]. A post hoc analysis was therefore completed. To examine comparisons of each
possible pair of levels of the demographic factor found to be significantly different for knowledge of specific elements of special education, post hoc analyses, using Tukey HSD were performed. The analysis indicated that a significant difference existed. For total school enrollment, a significant difference was present in collaborating with parents about discipline of students with disabilities between student enrollments of 0-399 student enrollment and over 599 student (p=.024). Principals of schools with at least 599 students perceived having measurable more knowledge than those of schools with no more than 399 students.

**Percentage of Student Enrollment Identified with a Disability**

ANOVAs were performed to examine the effect of percentage of student enrollment identified with a disability on levels of knowledge of the 24 specific elements relating to special education. Participants supplied the percentage of students with disabilities. Based on this information the researcher categorized them into four groups: 0-9 percent; 10-19 percent; 20-29 percent; or 30-75 percent. The ANOVAs revealed there were no statistically significant differences (p>.05) for the four groups involving any of the 24 elements relating to special education. This included specific legislation impacting students with disabilities, characteristics of different disabilities, selecting effective staff for special education, evaluating the effectiveness of special education staff, identifying professional development needs of all staff regarding special education, timelines in completing a multifactored evaluation (MFE)/evaluation team report (ETR), coordinating MFE/ETR meetings, interpreting MFE/ETRs, collaborating with parents throughout the evaluation process, timelines in developing the individualized education
program, coordinating IEP meetings, interpreting IEPs, collaborating with parents throughout the IEP process, supporting teachers in the implementation of individualized behavior plans, procedures used in disciplining students with disabilities, collaborating with parents about discipline of students with disabilities, procedures for mediation when parents are exercising their due process rights, procedures involved in a due process hearing, intervention strategies to use before referring a student for an evaluation, scheduling time for collaboration among general and special education teachers, providing a range of educational placement options for students with disabilities, curricular differentiation which supports the diverse needs of students, instructional differentiation which supports the diverse needs of students, or differentiation in grading practices for students with disabilities. Because none had statistical differences, no post hoc analysis could be performed.

**Initial Licensure for Principal Preparation Program**

ANOVAs were conducted to explore the impact of initial licensure for principal preparation program on levels of knowledge of the 24 specific elements relating to special education. Participants indicated which one of two groups depicted where each earned their initial principal licensure: in Ohio; or outside Ohio. If they earned their licensure outside Ohio they were asked to indicate which state.

The ANOVAs revealed there were no statistically significant differences (p>.05) for the two groups relating to evaluating the effectiveness of special education staff, identifying professional development needs of all staff regarding special education, timelines in completing a multifactored evaluation (MFE)/evaluation team report (ETR),
coordinating MFE/ETR meetings, interpreting MFE/ETRs, collaborating with parents throughout the evaluation process, timelines in developing the individualized education program, coordinating IEP meetings, interpreting IEPs, collaborating with parents throughout the IEP process, supporting teachers in the implementation of individualized behavior plans, procedures used in disciplining students with disabilities, collaborating with parents about discipline of students with disabilities, procedures for mediation when parents are exercising their due process rights, procedures involved in a due process hearing, intervention strategies to use before referring a student for an evaluation, scheduling time for collaboration among general and special education teachers, providing a range of educational placement options for students with disabilities, curricular differentiation which supports the diverse needs of students, instructional differentiation which supports the diverse needs of students, differentiation in grading practices for students with disabilities. However, there was marginal significance \( p \) between .05-.10) between mean scores for characteristics of different disabilities, and selecting effective staff for special education.

There was a significant difference \( p<.05 \) between groups for specific legislation impacting students with disabilities \( F (1, 192) =7.209, p=.008, \eta^2 = .036 \). While principals from Ohio indicated a higher level of knowledge than those outside Ohio, no post hoc analysis could be performed since the demographic factor of initial licensure of principal preparation program consisted of only two levels: within Ohio; and outside Ohio.
Years of Experience as a Principal

ANOVAs were conducted to explore the impact of years of experience as a principal on levels of knowledge of the 24 specific elements relating to special education. Participants provided the number years they had completed. Based on this information the researcher categorized them in one of four groups: 0-9 years; 10-19 years; 20-29 years; or 30 years and up.

The ANOVAs revealed there were no statistically significant differences (p>.05) for the four groups relating to specific legislation impacting students with disabilities, identifying professional development needs of all staff regarding special education, timelines in developing the individualized education program, interpreting IEPs, providing a range of educational placement options for students with disabilities, or differentiation in grading practices for students with disabilities. However, there was marginal significance (p between .05-.10) between mean scores for characteristics of different disabilities, timelines in completing a multifactored evaluation (MFE)/evaluation team report (ETR), coordinating MFE/ETR meetings, coordinating IEP meetings, and intervention strategies to use before referring a student for an evaluation.

There were significant differences (p<.05) between groups for selecting effective staff for special education \(F(3, 190)=2.701, p=.047, \eta^2=.041\], evaluating the effectiveness of special education staff \(F(3, 190)=3.637, p=.014, \eta^2=.054\], interpreting MFE/ETRs \(F(3, 190)=4.986, p=.002, \eta^2=.073\], collaborating with parents throughout the evaluation process \(F(3, 190)=3.648, p=.014, \eta^2=.054\], collaborating with parents throughout the IEP process \(F(3, 190)=2.775, p=.043, \eta^2=.042\], supporting teachers in...
the implementation of individualized behavior plans \( [F(3, 190)=5.881, \ p=.001, \ \eta^2 = .085] \), procedures used in disciplining students with disabilities \( [F(3, 190)=4.852, \ p=.003, \ \eta^2 = .071] \), collaborating with parents about discipline of students with disabilities \( [F(3, 190)=3.273, \ p=.022, \ \eta^2 = .049] \), procedures for mediation when parents are exercising their due process rights \( [F(3, 190)=2.773, \ p=.043, \ \eta^2 = .042] \), procedures involved in a due process hearing \( [F(3, 190)=2.742, \ p=.044, \ \eta^2 = .042] \), scheduling time for collaboration among general and special education teachers \( [F(3, 190)=2.774, \ p=.043, \ \eta^2 = .042] \), curricular differentiation which supports the diverse needs of students \( [F(3, 190)=2.788, \ p=.042, \ \eta^2 = .042] \), and instructional differentiation which supports the diverse needs of students \( [F(3, 190)=2.794, \ p=.042, \ \eta^2 = .042] \).

To examine comparisons of each possible pair of levels of the demographic factor found to be significantly different for knowledge of specific elements of special education, post hoc analyses, using Tukey HSD were performed. The analysis indicated that significant differences existed.

For interpreting MFES/ETRs significant differences were present between 0-9 years of experience and 20-29 years of experience \( (p=.003) \). Principals who had between 20-29 years of experience indicated a higher level of knowledge than those with between 0-9 years of experience.

Significant differences also existed in supporting teachers in the implementation of individualized behavior plans between 0-9 years experience and 20-29 years experience \( (p=.024) \), 0-9 years experience and 30 years experience and up \( (p=.005) \), and 10-19 years experience and 30 years experience and up \( (p=.022) \). Respondents with 20-
29 years of experience believed they had measurable more knowledge than those with no more than 9 years of experience. Likewise, principals with at least 30 years of experience reported higher amounts of knowledge than those with up to 19 years of experience. Next, significant differences were present in procedures used in disciplining students with disabilities. This occurred between 0-9 years experience and 10-19 years experience \((p=.041)\), and 0-9 years experience and 20-29 years experience \((p=.006)\). Respondents who have 10-19 and 20-29 years of experience both reported considerably more knowledge than those with between 0-9 years of experience. Further, significant differences existed in collaborating with parents about discipline of students with disabilities between 0-9 years experience and 10-19 years experience \((p=.030)\). Principals with between 10-19 years of experience indicated a higher degree of knowledge than those with no more than 9 years of experience.

Finally, significant differences occurred in scheduling time for collaboration among general education and special education teachers between 0-9 years experience and 10-19 years experience \((p=.049)\). Respondents with between 10-19 years of experience perceived having measurably more knowledge than those with 9 years of experience or less.

**Years of Professional Experience in Public Education**

ANOVA were performed to examine the effect of percentage of student enrollment identified with a disability on levels of knowledge of the 24 specific elements relating to special education. Participants provided the number years they had completed.
Based on this information the researcher categorized them in one of four groups: 0-9 years; 10-19 years; 20-29 years; or 30 years and up.

The ANOVAs revealed there were no statistically significant differences ($p > .05$) for the four groups relating to timelines in developing the individualized education program, coordinating IEP meetings, interpreting IEPs, procedures used in disciplining students with disabilities, or providing a range of educational placement options for students with disabilities. However, there was marginal significance ($p$ between .05-.10) between mean scores for identifying professional development needs of all staff regarding special education, timelines in completing a multifactored evaluation (MFE)/evaluation team report (ETR), and coordinating MFE/ETR meetings.

There were significant differences ($p < .05$) between groups for specific legislation impacting students with disabilities [$F(3, 190)=5.038, p=.002, \eta^2=.074$], characteristics of different disabilities [$F(3, 190)=3.258, p=.023, \eta^2=.049$], selecting effective staff for special education [$F(3, 190)=2.769, p=.043, \eta^2=.042$], evaluating the effectiveness of special education staff [$F(3, 190)=5.310, p=.002, \eta^2=.077$], interpreting MFE/ETRs [$F(3, 190)=3.267, p=.022, \eta^2=.049$], collaborating with parents throughout the evaluation process [$F(3, 190)=4.627, p=.004, \eta^2=.068$], collaborating with parents throughout the IEP process [$F(3, 190)=2.890, p=.037, \eta^2=.044$], supporting teachers in the implementation of individualized behavior plans [$F(3, 190)=6.862, p=.000, \eta^2=.098$], and collaborating with parents about discipline of students with disabilities [$F(3, 190)=2.727, p=.045, \eta^2=.041$], procedures for mediation when parents are exercising their due process rights [$F(3, 190)=4.958, p=.002, \eta^2=.006$], procedures involved in a
due process hearing \[F(3, 190)=5.843, p=.001, \eta^2 = .084\], intervention strategies to use before referring a student for an evaluation \[F(3, 190)=2.899, p=.036, \eta^2 = .044\], scheduling time for collaboration among general and special education teachers \[F(3, 190)=2.938, p=.034, \eta^2 = .044\]. curricular differentiation which supports the diverse needs of students\[F(3, 190)=2.719, p=.046, \eta^2 = .041\], instructional differentiation which supports the diverse needs of students\[F(3, 190)=2.763, p=.043, \eta^2 = .042\], differentiation in grading practices for students with disabilities \[F(3, 190)=2.878, p=.037, \eta^2 = .043\].

To examine comparisons of each possible pair of levels of the demographic factor found to be significantly different for knowledge of specific elements of special education, post hoc analyses, using Tukey HSD were performed. The analysis indicated that significant differences existed. For specific legislation impacting students with disabilities significant differences were present between 10-19 years experience and 30 years experience and up \((p=.001)\). Principals with at least 30 years of experience believed they had measurably more knowledge than those with between 10-19 years of experience. Significant differences also existed in characteristics of different disabilities between 10-19 years experience and 30 years experience and up \((p=.012)\). Respondents with at least 30 years of experience reported they had higher levels of knowledge than those with between 10-19 years of experience. Next, significant differences were present in evaluating the effectiveness of special education staff. This occurred between 10-19 years experience and 30 years experience and up \((p=.001)\). Principals with at least 30
years of experience indicated they had considerably more knowledge than those with between 10-19 years of experience.

Further, significant differences existed in interpreting MFES/ETRs between 10-19 years experience and 30 years experience and up \((p=.016)\). Respondents with at least 30 years of experience perceived they had a higher degree of knowledge than those with between 10-19 years of experience.

Next, significant differences occurred in collaborating with parents throughout the evaluation process between 0-9 years experience and 10-19 years experience \((p=.045)\), 10-19 years experience and 20-29 years experience \((p=.023)\), and 10-19 years of experience and 30 years experience and up \((p=.015)\). Principals with no more than 9 years of experience believed they had measurably more knowledge than those with 10-19 years of experience however, those with between 20-29 and more than 30 years of experience reported higher levels of knowledge than those with between 10-19 years.

There were also significant differences in collaboration with parents throughout the IEP process between 10-19 years experience and 30 years experience and up \((p=.027)\). Respondents with at least 30 years of experience indicated having considerably more knowledge than those with 10-19 years of experience.

Further, there were significant differences in supporting teachers in the implementation of individualized behavior plans between 10-19 years experience and 30 years experience and up \((p=.000)\). Principals with at least 30 years of experience perceived having higher amounts of knowledge than those with 10-19 years of experience. Then, there were significant differences in procedures for mediation when
parents are exercising their due process rights between 10-19 years experience and 20-29 years experience \((p=.011)\), and 10-19 years experience and 30 years experience and up \((p=.006)\). Principals with between 20-29 years and those with at least 30 years of experience both believed having measurably more knowledge than those with between 10-19 years of experience. Additionally, there were significant differences in procedures involved in a due process hearing between 10-19 years experience and 20-29 years experience \((p=.001)\), and 10-19 years experience and 30 years experience and up \((p=.005)\). Respondents with between 20-29 years and those with at least 30 years of experience both reported having a higher degree of knowledge than those with between 10-19 years of experience.

Also, there were significant differences in intervention strategies to use before referring a student for an evaluation between 10-19 years experience and 30 years experience and up \((p=.020)\). Principals with at least 30 years of experience indicated having considerably more knowledge than those with between 10-19 years of experience. There were significant differences in scheduling time for collaboration among general education and special education teachers between 10-19 years experience and 30 years experience and up \((p=.039)\). Respondents with at least 30 years of experience perceived having a higher amount of knowledge than those with between 10-19 years of experience. There were significant differences in curricular differentiation which supports the diverse needs of students between 10-19 years experience and 30 years experience and up \((p=.041)\). Principals with at least 30 years of experience believed they had measurably more knowledge than those with between 10-19 years of experience. Finally, significant
differences existed in *instructional differentiation* which supports the diverse needs of students between 10-19 years experience and 30 years experience and up (*p*=.042). Respondents with at least 30 years of experience reported a higher degree of knowledge than those with 10-19 years of experience.

**Percentage of Day Spent on Elements of Special Education**

ANOVAs were conducted to explore the impact of *years of experience as a principal* on levels of *knowledge of* the 24 specific elements relating to special education. Participants provided the number years they had completed. The researcher placed them in one of six: 0-9 percent; 10-19 percent; 20-29 percent; 30-39 percent; 40-49 percent; or 50 percent and up.

The ANOVAs revealed there were no statistically significant differences (*p*>.05) for any of the six groups for all 24 elements of special education. This included *specific legislation impacting students with disabilities*, *characteristics of different disabilities*, *selecting effective staff for special education*, *evaluating the effectiveness of special education staff*, *identifying professional development needs of all staff regarding special education*, *timelines in completing a multifactored evaluation (MFE)/ evaluation team report (ETR)*, *coordinating MFE/ETR meetings*, *interpreting MFE/ETRs*, *collaborating with parents throughout the evaluation process*, *timelines in developing the individualized education program*, *coordinating IEP meetings*, *interpreting IEPs*, *collaborating with parents throughout the IEP process*, *supporting teachers in the implementation of individualized behavior plans*, *procedures used in disciplining students with disabilities*, *collaborating with parents about discipline of students with disabilities*, *...*
procedures for mediation when parents are exercising their due process rights,
procedures involved in a due process hearing, intervention strategies to use before
referring a student for an evaluation, scheduling time for collaboration among general
and special education teachers, providing a range of educational placement options for
students with disabilities, curricular differentiation which supports the diverse needs of
students, instructional differentiation which supports the diverse needs of students, and
differentiation in grading practices for students with disabilities. Because there were no
significant differences, no post hoc analysis could be performed.

Research Question 3: What are the perceptions of Ohio principals in schools which
include at least one primary grade level regarding the importance
of preparation for specific elements relating to special education?

The purpose of research questions 3 was to describe the perceptions of Ohio
principals in schools which include at least one primary grade level regarding the
importance of preparation for specific elements relating to special education. A multi-
anchored scale, two six-point summated ratings were provided in Part I. There were a
total of 24 elements. The numerical values were assigned by principals as responses to
questions on the questionnaire regarding the importance of preparation for specific
elements of special education in terms of: critically essential, essential, needed, useful,
minimally useful, or of no importance. The percent for each questionnaire alternative to
indicate respondent levels for the 24 elements was reported. The most frequent response, or modal percentage, is presented in bold type for each survey questionnaire item.

Next, the means, standard deviations, skewness, kurtosis, and standard errors of the data were collected for those items. In addition, histograms were provided as a visual graphic to explore the degree to which the data are normally distributed.

Table 4.14 portrays the percentage of level of agreement for each response to survey questionnaire items 1-24 regarding level of principal perception of importance of preparation for elements of special education. The numbers in bold type indicate the modal percentage of response for the level of agreement.

<table>
<thead>
<tr>
<th>Item</th>
<th>Respondent Level of Agreement * (Number of Each Alternative)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
</tr>
<tr>
<td>Specific legislation impacting students with disabilities</td>
<td>194</td>
</tr>
<tr>
<td>Characteristics of different disabilities</td>
<td>194</td>
</tr>
<tr>
<td>Selecting effective staff for special education</td>
<td>194</td>
</tr>
<tr>
<td>Evaluating the effectiveness of special education staff</td>
<td>194</td>
</tr>
<tr>
<td>Identifying professional development needs of all staff regarding special education</td>
<td>194</td>
</tr>
<tr>
<td>Timeline in completing a multifactored evaluation (MFE)/evaluation team report (ETR)</td>
<td>194</td>
</tr>
</tbody>
</table>

Continued
Table 4.14 Continued

<table>
<thead>
<tr>
<th>Activity</th>
<th>Frequency Distribution</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coordinating MFE/ ETR meetings</td>
<td>194 0 5 13 45 71 60</td>
<td></td>
</tr>
<tr>
<td>Interpreting MFE/ ETRs</td>
<td>194 0 2 12 41 81 58</td>
<td></td>
</tr>
<tr>
<td>Collaborating with parents throughout the evaluation process</td>
<td>194 0 1 10 34 74 75</td>
<td></td>
</tr>
<tr>
<td>Timeline in developing the individualized education program (IEP)</td>
<td>194 0 1 6 31 78 78</td>
<td></td>
</tr>
<tr>
<td>Coordinating IEP meetings</td>
<td>194 0 6 14 47 83 44</td>
<td></td>
</tr>
<tr>
<td>Interpreting IEPs</td>
<td>194 0 0 5 32 93 64</td>
<td></td>
</tr>
<tr>
<td>Collaborating with parents throughout the IEP process</td>
<td>194 0 1 14 25 81 73</td>
<td></td>
</tr>
<tr>
<td>Supporting teachers in the implementation of individualized behavior plans</td>
<td>194 0 1 4 21 100 68</td>
<td></td>
</tr>
<tr>
<td>Procedures used in disciplining students with disabilities</td>
<td>194 0 0 2 20 87 85</td>
<td></td>
</tr>
<tr>
<td>Collaborating with parents about discipline of students with disabilities</td>
<td>194 0 0 3 30 87 74</td>
<td></td>
</tr>
<tr>
<td>Procedures for mediation when parents are exercising their due process rights</td>
<td>194 0 2 16 58 52 66</td>
<td></td>
</tr>
<tr>
<td>Procedures involved in a due process hearing</td>
<td>194 0 4 23 49 56 62</td>
<td></td>
</tr>
<tr>
<td>Intervention strategies to use before referring a student for an evaluation</td>
<td>194 0 0 0 21 90 83</td>
<td></td>
</tr>
<tr>
<td>Scheduling time for collaboration among general education and special education teachers</td>
<td>194 0 0 4 28 101 61</td>
<td></td>
</tr>
<tr>
<td>Providing a range of educational placement options for students with disabilities</td>
<td>194 0 0 7 50 90 47</td>
<td></td>
</tr>
<tr>
<td>Curricular differentiation which supports the diverse needs of students</td>
<td>194 0 0 2 35 96 61</td>
<td></td>
</tr>
<tr>
<td>Instructional differentiation which supports the diverse needs of students</td>
<td>194 0 0 3 30 94 67</td>
<td></td>
</tr>
<tr>
<td>Differentiation in grading practices for students with disabilities</td>
<td>194 0 0 10 42 100 42</td>
<td></td>
</tr>
</tbody>
</table>

*Note.* Bolded number indicates the modal level of response.

* Of no importance=1; Minimally useful=2; Useful=3; Needed=4; Essential=5; Critically essential=6.
Table 4.15 summarizes the mean, standard deviation, skewness, kurtosis, and standard errors for survey questionnaire items 1-24 regarding level of principal perception of importance of preparation for elements of special education.

<table>
<thead>
<tr>
<th>Item</th>
<th>Measures of Central Tendency and Deviation from Normality</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
</tr>
<tr>
<td>Specific legislation impacting students with disabilities</td>
<td>194</td>
</tr>
<tr>
<td>Characteristics of different disabilities</td>
<td>194</td>
</tr>
<tr>
<td>Selecting effective staff for special education</td>
<td>194</td>
</tr>
<tr>
<td>Evaluating the effectiveness of special education staff</td>
<td>194</td>
</tr>
<tr>
<td>Identifying professional development needs of all staff regarding special education</td>
<td>194</td>
</tr>
<tr>
<td>Timeline in completing a multifactored evaluation (MFE)/ evaluation team report (ETR)</td>
<td>194</td>
</tr>
<tr>
<td>Coordinating MFE/ ETR meetings</td>
<td>194</td>
</tr>
<tr>
<td>Interpreting MFE/ ETRs</td>
<td>194</td>
</tr>
<tr>
<td>Collaborating with parents throughout the evaluation process</td>
<td>194</td>
</tr>
<tr>
<td>Timeline in developing the individualized education program (IEP)</td>
<td>194</td>
</tr>
</tbody>
</table>

Continued

*Table 4.15*  Mean/Standard Deviation, Skewness/Standard Error, and Kurtosis/Standard Error of Individual Questionnaire Items Regarding Principal Importance of Preparation For Specific Elements Relating to Special Education
Table 4.15 Continued

<table>
<thead>
<tr>
<th>Activity</th>
<th>M</th>
<th>SD</th>
<th>Correlation Coefficient</th>
<th>Z</th>
<th>p</th>
<th>Pr</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coordinating IEP meetings</td>
<td>194</td>
<td>.474</td>
<td>-.710</td>
<td>.175</td>
<td>.286</td>
<td>.347</td>
</tr>
<tr>
<td>Interpreting IEPs</td>
<td>194</td>
<td>5.113</td>
<td>-.544</td>
<td>.175</td>
<td>-.134</td>
<td>.347</td>
</tr>
<tr>
<td>Collaborating with parents throughout the IEP process</td>
<td>194</td>
<td>5.087</td>
<td>-.914</td>
<td>.175</td>
<td>.329</td>
<td>.347</td>
</tr>
<tr>
<td>Supporting teachers in the implementation of individualized behavior plans</td>
<td>194</td>
<td>5.185</td>
<td>.921</td>
<td>.175</td>
<td>1.547</td>
<td>.347</td>
</tr>
<tr>
<td>Procedures used in disciplining students with disabilities</td>
<td>194</td>
<td>5.314</td>
<td>-.703</td>
<td>.175</td>
<td>.045</td>
<td>.347</td>
</tr>
<tr>
<td>Collaborating with parents about discipline of students with disabilities</td>
<td>194</td>
<td>5.195</td>
<td>-.562</td>
<td>.175</td>
<td>-.307</td>
<td>.347</td>
</tr>
<tr>
<td>Procedures for mediation when parents are exercising their due process rights</td>
<td>194</td>
<td>4.845</td>
<td>.392</td>
<td>.175</td>
<td>.771</td>
<td>.347</td>
</tr>
<tr>
<td>Procedures involved in a due process hearing</td>
<td>194</td>
<td>4.768</td>
<td>-.477</td>
<td>.175</td>
<td>-.686</td>
<td>.347</td>
</tr>
<tr>
<td>Intervention strategies to use before referring a student for an evaluation</td>
<td>194</td>
<td>5.319</td>
<td>-.455</td>
<td>.175</td>
<td>-.732</td>
<td>.347</td>
</tr>
<tr>
<td>Scheduling time for collaboration among general education and special education teachers</td>
<td>194</td>
<td>5.128</td>
<td>-.530</td>
<td>.175</td>
<td>.082</td>
<td>.347</td>
</tr>
<tr>
<td>Providing a range of educational placement options for students with disabilities</td>
<td>194</td>
<td>4.912</td>
<td>-.270</td>
<td>.175</td>
<td>-.515</td>
<td>.347</td>
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<tr>
<td>Curricular differentiation which supports the diverse needs of students</td>
<td>194</td>
<td>5.113</td>
<td>-.341</td>
<td>.175</td>
<td>-.508</td>
<td>.347</td>
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<tr>
<td>Instructional differentiation which supports the diverse needs of students</td>
<td>194</td>
<td>5.159</td>
<td>-.498</td>
<td>.175</td>
<td>-.233</td>
<td>.347</td>
</tr>
<tr>
<td>Differentiation in grading practices for students with disabilities</td>
<td>194</td>
<td>4.896</td>
<td>-.439</td>
<td>.175</td>
<td>-.117</td>
<td>.347</td>
</tr>
</tbody>
</table>
Figures 4.25-4.48 visually explore the distributional shapes through histograms. They show the patterns of responses for survey questionnaire items 1-24 regarding principal perception of importance of preparation for elements of special education. The overlying line in the histograms represent a normal curve, with the mean and standard deviation of the data.
Research Question 4: Do significant differences exist in the perceptions of Ohio principals in schools which include at least one primary grade level regarding the importance of preparation for specific elements relating to special education according to demographic characteristics?

The researcher was interested in examining whether significant differences existed among group means when the various demographic factors (type of district, current adequate yearly progress status relating to students with disabilities, student enrollment of school, percentage of student enrollment identified with a disability, state in which initial principal licensure earned, years completed as a principal, years of professional experience in public schools, average percentage of work day spent on special education ) served as independent variables and importance of preparation for the
24 elements of special education served as dependent variables. Data were presented in Tables 4.1, 4.3, 4.4, 4.5, 4.7, 4.9, 4.10, and 4.11. As explained in the response to question 2, the data from Tables 4.2, 4.6, and 4.8 were not included in these analyses.

As reviewed previously, the principals from city districts (49.5%) responded at a lower average than the overall mean of the State of Ohio. However, principals from exempted villages (8.2%) and local districts (43.3%) replied at a higher average than the mean in the state. The majority of schools did not meet AYP in the category relating to students with disabilities (41.8%). The highest frequency of student enrollment in schools was in the 0-399 category (45.4%). The majority of schools (54.6%) had a special education population between 10-19 percent, and the most frequent response regarding the percent of their day principals spent on elements of special education was between 10-19 percent (36.1%) of their day was spent on elements of special education.

With regard to initial principal licensure, 189 (97.4%) of respondents earned theirs in Ohio. The majority of respondents had between 0-9 years (50.5%) of experience as principals, and between 20-29 years (33.0%) years of experience in public education.

As described in question 2, the One-Way Analysis of Variance (ANOVA) was used for analysis. Ary, Jacobs & Sorenson (2010) describe it as a statistical procedure used to analyze the data from a research study which has no less than three groups. The basic rationale of ANOVA is that the total variance of all subjects in an experiment can be subdivided by variance between groups and variance within groups.

The null hypothesis in a one-way ANOVA is that the populations represented by the samples all have the same means. Rejecting the null hypothesis means that the
populations do not all have the same mean. Typically, if the probability value is .05 or lower, the null hypothesis is rejected. Further, George and Mallory (2007) concluded that if the calculation for an ANOVA identifies a statistical significance or “p” value that was less than .05, then the result is considered “statistically significant.” If the p value is between .05 and .10, then the result is considered “marginally significant.” Therefore, the smaller the value, the greater confidence the researcher has that the findings are valid.

Additional tests were conducted with ones that were determined to be statistically significant. Post hoc investigations assisted the researcher in understanding why null hypotheses were rejected. When a significant difference was found through the use of ANOVA, then post hoc analyses, using the Tukey HSD method, were conducted. In the cases where there were fewer than three levels of a demographic factor, post hoc analyses could not be performed. This applied specifically to questionnaire item 31, relating to state where initial principal licensure was earned.

Effect size of the data were also explored. The sum of squares (SS) between groups is a systematic variation, understood to be due to the effects of the treatment. When the SS is divided between groups by the total sum of squares, the proportion of the total variability of the dependent variable that is accounted for by the independent variable is determined. This index is referred to as $\eta^2$.

**Type of District**

ANOVAs were conducted to explore the impact of type of school district on levels of importance of preparation for the 24 specific elements relating to special education. Participants indicated which one of three groups accurately depicted the kind
of school district which their school was located: city school district; exempted village school district; or local school district.

The ANOVAs revealed there were no statistically significant differences (p >.05) for the three groups relating to specific legislation impacting students with disabilities, characteristics of different disabilities, selecting effective staff for special education, evaluating the effectiveness of special education staff, identifying professional development needs of all staff regarding special education, timelines in completing a multifactored evaluation (MFE)/ evaluation team report (ETR), coordinating MFE/ETR meetings, interpreting MFE/ETRs, collaborating with parents throughout the evaluation process, timelines in developing the individualized education program, coordinating IEP meetings, interpreting IEPs, collaborating with parents throughout the IEP process, supporting teachers in the implementation of individualized behavior plans, procedures used in disciplining students with disabilities, collaborating with parents about discipline of students with disabilities, procedures for mediation when parents are exercising their due process rights, procedures involved in a due process hearing, intervention strategies to use before referring a student for an evaluation, scheduling time for collaboration among general and special education teachers, providing a range of educational placement options for students with disabilities, curricular differentiation which supports the diverse needs of students, or differentiation in grading practices for students with disabilities.

There were significant differences (p <.05) between groups for instructional differentiation which supports the diverse needs of students [F (2, 191) = 3.296, p = .039,
Therefore, post hoc analysis was completed. To examine comparisons of each possible pair of levels of the demographic factor, type of school district, found to be significantly different for importance of preparation for specific elements of special education, post hoc analyses, using Tukey HSD were performed. The analysis indicated that no significant differences existed.

**Current AYP Status Relating to Students with Disabilities**

ANOVAs were performed to examine the effect of current AYP status relating to students with disabilities on levels of importance of preparation for the 24 specific elements relating to special education. Participants indicated which one of three groups accurately depicted the current rating of their school: did not meet; met; or not applicable.

The ANOVAs revealed there were no statistically significant differences (p>.05) for the three groups involving characteristics of different disabilities, selecting effective staff for special education, evaluating the effectiveness of special education staff, identifying professional development needs of all staff regarding special education, coordinating MFE/ETR meetings, interpreting MFE/ETRs, collaborating with parents throughout the evaluation process, coordinating IEP meetings, supporting teachers in the implementation of individualized behavior plans, procedures used in disciplining students with disabilities, collaborating with parents about discipline of students with disabilities, procedures for mediation when parents are exercising their due process rights, procedures involved in a due process hearing, intervention strategies to use before referring a student for an evaluation, scheduling time for collaboration among general
and special education teachers, providing a range of educational placement options for students with disabilities, curricular differentiation which supports the diverse needs of students, instructional differentiation which supports the diverse needs of students, or differentiation in grading practices for students with disabilities. However, there was marginal significance (p between .05-.10) between mean scores for timelines in developing the individualized education program.

There were significant differences (p<.05) between groups for specific legislation impacting students with disabilities \[F(2, 191)=7.076, p=.001, \eta^2=.069\], timelines in completing a multifactored evaluation (MFE)/evaluation team report (ETR) \[F(2, 191)=3.559, p=.030, \eta^2=.036\], interpreting IEPs \[F(2, 191)=6.901, p=.001, \eta^2=.067\], and collaborating with parents throughout the IEP process \[F(2, 191)=4.095, p=.018, \eta^2=.041\]. Therefore, post hoc analyses were completed.

To examine comparisons of each possible pair of levels of the demographic factor found to be significantly different for importance of preparation for specific elements of special education, post hoc analyses, using Tukey HSD were performed. The analysis indicated that significant differences existed.

For specific legislation impacting students with disabilities significant differences were present between met AYP and not applicable (p=.001). Principals from schools who met AYP believed that preparation in this area is considerably more important than those from schools in which AYP is not applicable. Significant differences also existed in timelines in completing a multifactored evaluation (MFE)/evaluation team report (ETR) between met AYP and not applicable (p=.029). Respondents from schools who met AYP
reported that preparation in this area is greatly more important than those from schools in which AYP is not applicable.

Next, significant differences occurred in interpreting IEPs between did not meet AYP and not applicable \((p=.003)\), and also between met AYP and not applicable \((p=.002)\). Principals from schools which either did not meet AYP or met AYP indicated that preparation in this area is notably more important that those from schools in which AYP is not applicable. Further, significant differences existed in collaborating with parents throughout the IEP process between did not meet AYP and not applicable \((p=.029)\), and also between met AYP and not applicable \((p=.025)\). Respondents from schools which either did not meet AYP or met AYP perceived that preparation in this area is considerably more important that those from schools in which AYP is not applicable.

**Total Student Enrollment in School**

ANOVAs were conducted to explore the impact of total student enrollment in school on levels of importance of preparation for the 24 specific elements relating to special education. Participants indicated which one of three groups accurately depicted the kind of school district which their school was located: 0-399 students; 400-599 students; or over 599 students.

The ANOVAs revealed there were no statistically significant differences \((p>.05)\) for the three groups relating to specific legislation impacting students with disabilities, characteristics of different disabilities, selecting effective staff for special education, evaluating the effectiveness of special education staff, identifying professional development needs of all staff regarding special education, timelines in completing a
multifactored evaluation (MFE)/evaluation team report (ETR), coordinating MFE/ETR meetings, interpreting MFE/ETRs, collaborating with parents throughout the evaluation process, timelines in developing the individualized education program, coordinating IEP meetings, collaborating with parents throughout the IEP process, supporting teachers in the implementation of individualized behavior plans, collaborating with parents throughout the IEP process, supporting teachers in the implementation of individualized behavior plans, collaborating with parents throughout the IEP process, supporting teachers in the implementation of individualized behavior plans, collaborating with parents throughout the IEP process, supporting teachers in the implementation of individualized behavior plans, intervention strategies to use before referring a student for an evaluation, providing a range of educational placement options for students with disabilities, curricular differentiation which supports the diverse needs of students, instructional differentiation which supports the diverse needs of students, or differentiation in grading practices for students with disabilities. However, there was marginal significance (p between .05-.10) between mean scores for procedures used in disciplining students with disabilities, and procedures for mediation when parents are exercising their due process rights.

There were significant differences (p<.05) between groups for interpreting IEPs [F(2, 191)=4.766, p=.010, η² = .048], collaborating with parents about discipline of students with disabilities [F(2, 191)=4.281, p=.015, η² = .043], procedures involved in a due process hearing [F(2, 191)=3.925, p=.021, η² = .039], and scheduling time for collaboration among general and special education teachers [F(2, 191)=3.428, p=.034, η² = .035]. Therefore, post hoc analyses were completed.
To examine comparisons of each possible pair of levels of the demographic factor found to be significantly different for *importance of preparation for* specific elements of special education, post hoc analyses, using Tukey HSD were performed. The analysis indicated that significant differences existed.

For *interpreting IEPs* significant differences were present between school enrollments of 0-399 and 400-599 (*p*=.022). Principals from schools with between 400-599 students reported that preparation in this area is considerably more important than those from schools with enrollments up to 399.

Significant differences also existed in *collaborating with parents about discipline of students with disabilities* between student enrollments of 0-399 and over 599 (*p*=.011). Respondents from schools with more than 599 students indicated that preparation in this area is greatly more important than those from schools with up to 399 students. Next, significant differences were present in *procedures involved in a due process hearing*. This occurred between student enrollments of 0-399 and 400-599 (*p*=.046). Principals of schools with between 400-599 students perceived that preparation in this area is notably more important than those from schools with up to 399 students.

Finally, significant differences existed in *scheduling time for collaboration among general education and special education teachers* between school enrollments of 0-399 and over 599 (*p*=.031). Respondents from schools with more than 599 students believed that preparation in this area is considerably more important than those from schools who have up to 399 students.
Percentage of Student Enrollment Identified with a Disability

ANOVA\text{s} were performed to examine the effect of percentage of student enrollment identified with a disability on levels of importance of preparation for the 24 specific elements relating to special education. Participants supplied the percentage of students with disabilities. Based on this information the researcher categorized them into four groups: 0-9 percent; 10-19 percent; 20-29 percent; or 30-75 percent. The ANOVAs revealed there were no statistically significant differences (p>.05) for the four groups involving any of the 24 elements relating to special education. Therefore, no post hoc analysis could be performed.

Initial Licensure for Principal Preparation Program

ANOVA\text{s} were conducted to explore the impact of initial licensure for principal preparation program on levels of importance of preparation for the 24 specific elements relating to special education. Participants indicated which one of two groups depicted where each earned their initial principal licensure: in Ohio; or outside Ohio. If they earned their licensure outside Ohio they were asked to indicate which state.

The ANOVAs revealed there were no statistically significant differences (p>.05) for the three groups relating to specific legislation impacting students with disabilities, characteristics of different disabilities, selecting effective staff for special education, evaluating the effectiveness of special education staff, timelines in completing a multifactored evaluation (MFE)/evaluation team report (ETR), coordinating MFE/ETR meetings, interpreting MFE/ETRs, collaborating with parents throughout the evaluation process, timelines in developing the individualized education program, coordinating IEP
meetings, interpreting IEPs, collaborating with parents throughout the IEP process, supporting teachers in the implementation of individualized behavior plans, procedures used in disciplining students with disabilities, collaborating with parents about discipline of students with disabilities, intervention strategies to use before referring a student for an evaluation, scheduling time for collaboration among general and special education teachers, providing a range of educational placement options for students with disabilities, curricular differentiation which supports the diverse needs of students, instructional differentiation which supports the diverse needs of students, or differentiation in grading practices for students with disabilities. However, there was marginal significance (p between .05-.10) between mean scores for identifying professional development needs of all staff regarding special education, procedures for mediation when parents are exercising their due process rights, and procedures involved in a due process hearing. No post hoc analysis could be performed because there were none at the statistically significant level (p<.05), and since the demographic factor of initial licensure of principal preparation program consisted of only two levels: within Ohio; and outside Ohio.

**Years of Experience as a Principal**

ANOVA were conducted to explore the impact of years of experience as a principal on levels of importance of preparation for the 24 specific elements relating to special education. Participants provided the number years they had completed. Based on this information the researcher categorized them in one of four groups: 0-9 years; 10-19 years; 20-29 years; or 30 years and up.
The ANOVAs revealed there were no statistically significant differences (p>.05) for the four groups relating to *specific legislation impacting students with disabilities*, *characteristics of different disabilities, selecting effective staff for special education, evaluating the effectiveness of special education staff, identifying professional development needs of all staff regarding special education, timelines in completing a multifactored evaluation (MFE)/evaluation team report (ETR), coordinating MFE/ETR meetings, interpreting MFE/ETRs, collaborating with parents throughout the evaluation process, timelines in developing the individualized education program, coordinating IEP meetings, interpreting IEPs, collaborating with parents throughout the IEP process, collaborating with parents about discipline of students with disabilities, procedures for mediation when parents are exercising their due process rights, procedures involved in a due process hearing, intervention strategies to use before referring a student for an evaluation, scheduling time for collaboration among general and special education teachers, providing a range of educational placement options for students with disabilities, curricular differentiation which supports the diverse needs of students,* instructional differentiation which supports the diverse needs of students,* or differentiation in grading practices for students with disabilities.* However, there was marginal significance (p between .05-.10) between mean scores for *supporting teachers in the implementation of individualized behavior plans, and procedures used in disciplining students with disabilities.* There were none at the statistically significant level (p<.05). Therefore, no post hoc analysis could be performed.
Years of Professional Experience in Public Education

ANOVAs were performed to examine the effect of years of professional experience in public education on levels of importance of preparation for the 24 specific elements relating to special education. Participants provided the number years they had completed. Based on this information the researcher categorized them in one of four groups: 0-9 years; 10-19 years; 20-29 years; or 30 years and up.

The ANOVAs revealed there were no statistically significant differences (p>.05) for the four groups relating to characteristics of different disabilities, selecting effective staff for special education, evaluating the effectiveness of special education staff, identifying professional development needs of all staff regarding special education, timelines in completing a multifactored evaluation (MFE)/ evaluation team report (ETR), coordinating MFE/ETR meetings, interpreting MFE/ETRs, collaborating with parents throughout the evaluation process, timelines in developing the individualized education program, coordinating IEP meetings, interpreting IEPs, supporting teachers in the implementation of individualized behavior plans, collaborating with parents about discipline of students with disabilities, or procedures involved in a due process hearing, intervention strategies to use before referring a student for an evaluation, scheduling time for collaboration among general and special education teachers, providing a range of educational placement options for students with disabilities, curricular differentiation which supports the diverse needs of students, or instructional differentiation which supports the diverse needs of students. However, there was marginal significance (p between .05-.10) between mean scores for specific legislation impacting students with
disabilities, collaborating with parents throughout the IEP process, procedures used in disciplining students with disabilities, procedures for mediation when parents are exercising their due process rights, and differentiation in grading practices for students with disabilities. There were none at the statistically significant level (p<.05). Therefore, no post hoc analysis could be performed.

**Percentage of Day Spent on Elements of Special Education**

ANOVAs were conducted to explore the impact of *percentage of day spent on elements of special education* on levels of *importance of preparation for* the 24 specific elements relating to special education. Participants provided the number years they had completed. The researcher placed them in one of six: 0-9 percent; 10-19 percent; 20-29 percent; 30-39 percent; 40-49 percent; or 50 percent and up.

The ANOVAs revealed there were no statistically significant differences (p>.05) for the six groups relating to *specific legislation impacting students with disabilities, characteristics of different disabilities, selecting effective staff for special education, evaluating the effectiveness of special education staff, identifying professional development needs of all staff regarding special education, timelines in completing a multifactored evaluation (MFE)/ evaluation team report (ETR), coordinating MFE/ETR meetings, interpreting MFE/ETRs, collaborating with parents throughout the evaluation process, timelines in developing the individualized education program, coordinating IEP meetings, interpreting IEPs, collaborating with parents throughout the IEP process, supporting teachers in the implementation of individualized behavior plans, procedures used in disciplining students with disabilities, collaborating with parents about discipline*
of students with disabilities, procedures for mediation when parents are exercising their
due process rights, procedures involved in a due process hearing, intervention strategies
to use before referring a student for an evaluation, scheduling time for collaboration
among general and special education teachers, providing a range of educational
placement options for students with disabilities, instructional differentiation which
supports the diverse needs of students, or differentiation in grading practices for students
with disabilities. There were also none with marginal significance (p between .05-.10).

There was significant differences (p<.05) between groups for curricular
differentiation which supports the diverse needs of students \[ F (5,188) = 2.579, p=.028, \eta^2 = .064 \]. Therefore, post hoc analyses were completed.

To examine comparisons of each possible pair of levels of the demographic factor
found to be significantly different for importance of preparation for specific elements of
special education, post hoc analyses, using Tukey HSD were performed. The analysis
indicated that significant differences existed. For curricular differentiation which
supports the diverse needs of students, significant differences were present between 20-
29 percent of day and 30-39 percent of day (p=.031), and also 30-39 percent of day and
50 percent of day and up (p=.028). Principals who spend, on average, 30-39 percent of
their day indicated that preparation in this area is notably more important than those who
reported spending either between 20-29 percent or at least 50 percent of their day on
elements of special education.
Research Question 5: Is there a relationship between the perceptions of Ohio principals in schools which include at least one primary grade level regarding their knowledge of and importance of preparation for specific elements relating to special education?

First, Pearson Product-Moment Correlation was used to describe the correlations between the self-reported knowledge of and the perceptions of principals regarding the importance of preparation for each item. Next, principal components analysis was performed as part of research question 5 in an attempt to reduce the set of 24 variables to a smaller number of distinct constructs or components. The data for knowledge of and importance of preparation for were analyzed separately.

Pallant (2005) explains that correlation coefficients give a numerical summary of the direction and the strength of the linear relationship between two variables. Pearson correlation coefficients can range from -1 to +1. The size of the absolute value gives information on the strength of the relationship. A perfect correlation of 1 or -1 specifies that the value of one variable can be determined exactly by knowing the value of the other variable. A correlation of zero however, indicates no relationship between the two variables. Cohen (1988) suggests the following guidelines to interpret correlations: r=.10 to .29 or r=-.10 to -.29 as small; r=.30 to .40 or r=-.30 to -.40 as medium; and r-.5 to 1.0 or -r-.5 to -1.0 as large.
The relationship between variables can be examined by viewing the scatterplot. Pallant (2005) states that it provides information on the direction of the relationship (positive or negative) and the strength of the relationship. A scatterplot of a perfect correlation would show a straight line. A scatterplot with a correlation of zero would have no clear pattern. Preliminary analyses were performed by the researcher using the scatterplot to ensure no violation of the assumptions of normality, linearity, and homoscedasticity.

The relationship between knowledge of and importance of preparation for specific legislation impacting students with disabilities was investigated using Pearson product-moment correlation coefficient. Preliminary analyses were performed to ensure no violation of the assumptions of normality, linearity, and homoscedasticity. There was a positive correlation between the two variables \[ r = .52, n = 194, p = .000 \], with high levels of knowledge associated with high levels of importance. This correlation is considered large according to Cohen’s standards. Knowledge helps to explain nearly 27 percent of the variance in the ratings of the respondents on the perceptions of importance of preparation.

The relationship between knowledge of and importance of preparation for characteristics of different disabilities was investigated using Pearson product-moment correlation coefficient. Preliminary analyses were performed to ensure no violation of the assumptions of normality, linearity, and homoscedasticity. There was a positive correlation between the two variables \[ r = .39, n = 194, p = .000 \]. This correlation is considered medium according to Cohen’s standards. Knowledge helps to explain
nearly 15 percent of the variance in the ratings of the respondents on the perceptions of importance of preparation.

The relationship between knowledge of and importance of preparation for selecting effective staff for special education was investigated using Pearson product-moment correlation coefficient. Preliminary analyses were performed to ensure no violation of the assumptions of normality, linearity, and homoscedasticity. There was a positive correlation between the two variables \( r = .40, n = 194, p = .000 \). This correlation is considered medium according to Cohen’s standards. Knowledge of helps to explain approximately 16 percent of the variance in the ratings of the respondents on the perceptions of importance of preparation.

The relationship between knowledge of and importance of preparation for evaluating the effectiveness of special education staff was investigated using Pearson product-moment correlation coefficient. Preliminary analyses were performed to ensure no violation of the assumptions of normality, linearity, and homoscedasticity. There was a positive correlation between the two variables \( r = .41, n = 194, p = .000 \). This correlation is considered medium according to Cohen’s standards. Knowledge of helps to explain nearly 17 percent of the variance in the ratings of the respondents on the perceptions of importance of preparation.

The relationship between knowledge of and importance of preparation for identifying professional development needs of all staff regarding special education was investigated using Pearson product-moment correlation coefficient. Preliminary analyses were performed to ensure no violation of the assumptions of normality, linearity, and
homoscedasticity. There was a positive correlation between the two variables \([r=.35, n=194, p=.000]\). This correlation is considered medium according to Cohen’s standards. Knowledge of helps to explain nearly 13 percent of the variance in the ratings of the respondents on the perceptions of importance of preparation.

The relationship between knowledge of and importance of preparation for the timeline in completing a multifactored (MFE)/ evaluation team report (ETR) was investigated using Pearson product-moment correlation coefficient. Preliminary analyses were performed to ensure no violation of the assumptions of normality, linearity, and homoscedasticity. There was a positive correlation between the two variables \([r=.44, n=194, p=.000]\). This correlation is considered medium according to Cohen’s standards. Knowledge of helps to explain nearly 20 percent of the variance in the ratings of the respondents on the perceptions of importance of preparation.

The relationship between knowledge of and importance of preparation for coordinating MFE/ ETR meetings was investigated using Pearson product-moment correlation coefficient. Preliminary analyses were performed to ensure no violation of the assumptions of normality, linearity, and homoscedasticity. There was a positive correlation between the two variables \([r=.56, n=194, p=.000]\). This correlation is considered large according to Cohen’s standards. Knowledge of helps to explain approximately 31 percent of the variance in the ratings of the respondents on the perceptions of importance of preparation.

The relationship between knowledge of and importance of preparation for interpreting MFEs/ETRs was investigated using Pearson product-moment correlation
coefficient. Preliminary analyses were performed to ensure no violation of the assumptions of normality, linearity, and homoscedasticity. There was a positive correlation between the two variables $[r=.47, \ n=194, \ p=.000]$. This correlation is considered medium according to Cohen’s standards. Knowledge of helps to explain approximately 22 percent of the variance in the ratings of the respondents on the perceptions of importance of preparation.

The relationship between knowledge of and importance of preparation for collaborating with parents throughout the evaluation process was investigated using Pearson product-moment correlation coefficient. Preliminary analyses were performed to ensure no violation of the assumptions of normality, linearity, and homoscedasticity. There was a positive correlation between the two variables $[r=.58, \ n=194, \ p=.000]$, with high levels of knowledge associated with high levels of importance. This correlation is considered large according to Cohen’s standards. Knowledge of helps to explain nearly approximately 33 percent of the variance in the ratings of the respondents on the perceptions of importance of preparation.

The relationship between knowledge of and importance of preparation for the timeline in developing the individualized education program (IEP) was investigated using Pearson product-moment correlation coefficient. Preliminary analyses were performed to ensure no violation of the assumptions of normality, linearity, and homoscedasticity. There was a positive correlation between the two variables $[r=.46, \ n=194, \ p=.000]$. This correlation is considered medium according to Cohen’s standards. Knowledge of helps
to explain nearly 22 percent of the variance in the ratings of the respondents on the
perceptions of importance of preparation.

The relationship between knowledge of and importance of preparation for
coordinating IEP meetings was investigated using Pearson product-moment correlation
coefficient. Preliminary analyses were performed to ensure no violation of the
assumptions of normality, linearity, and homoscedasticity. There was a positive
correlation between the two variables \( r = .55, n = 194, p = .000 \). This correlation is
considered large according to Cohen’s standards. Knowledge of helps to explain nearly
30 percent of the variance in the ratings of the respondents on the perceptions of
importance of preparation.

The relationship between knowledge of and importance of preparation for
interpreting IEPs was investigated using Pearson product-moment correlation coefficient.
Preliminary analyses were performed to ensure no violation of the assumptions of
normality, linearity, and homoscedasticity. There was a positive correlation between the
two variables \( r = .37, n = 194, p = .000 \). This correlation is considered medium according
to Cohen’s standards. Knowledge of helps to explain nearly 14 percent of the variance in
the ratings of the respondents on the perceptions of importance of preparation.

The relationship between knowledge of and importance of preparation for
collaborating with parents throughout the IEP process was investigated using Pearson
product-moment correlation coefficient. Preliminary analyses were performed to ensure
no violation of the assumptions of normality, linearity, and homoscedasticity. There was
a positive correlation between the two variables \( r = .61, n = 194, p = .000 \). This correlation
is considered large according to Cohen’s standards. Knowledge of helps to explain approximately 37 percent of the variance in the ratings of the respondents on the perceptions of importance of preparation.

The relationship between knowledge of and importance of preparation for supporting teachers in the implementation of individualized behavior plans was investigated using Pearson product-moment correlation coefficient. Preliminary analyses were performed to ensure no violation of the assumptions of normality, linearity, and homoscedasticity. There was a positive correlation between the two variables \[ r = .45, n = 194, p = .000 \]. This correlation is considered medium according to Cohen’s standards. Knowledge of helps to explain approximately 20 percent of the variance in the ratings of the respondents on the perceptions of importance of preparation.

The relationship between knowledge of and importance of preparation for procedures used in disciplining students with disabilities was investigated using Pearson product-moment correlation coefficient. Preliminary analyses were performed to ensure no violation of the assumptions of normality, linearity, and homoscedasticity. There was a positive correlation between the two variables \[ r = .43, n = 194, p = .000 \], with high levels of knowledge associated with high levels of importance. This correlation is considered medium according to Cohen’s standards. Knowledge of helps to explain approximately 18 percent of the variance in the ratings of the respondents on the perceptions of importance of preparation.

The relationship between knowledge of and importance of preparation for collaborating with parents about discipline of students with disabilities was investigated
using Pearson product-moment correlation coefficient. Preliminary analyses were performed to ensure no violation of the assumptions of normality, linearity, and homoscedasticity. There was a positive correlation between the two variables \([ r = .51, n = 194, p = .000 ]\). This correlation is considered large according to Cohen’s standards. 

Knowledge of helps to explain nearly 26 percent of the variance in the ratings of the respondents on the perceptions of importance of preparation.

The relationship between knowledge of and importance of preparation for procedures for mediation when parents are exercising their due process rights was investigated using Pearson product-moment correlation coefficient. Preliminary analyses were performed to ensure no violation of the assumptions of normality, linearity, and homoscedasticity. There was a positive correlation between the two variables \([ r = .41, n = 194, p = .000 ]\). This correlation is considered medium according to Cohen’s standards. 

Knowledge of helps to explain approximately 16 percent of the variance in the ratings of the respondents on the perceptions of importance of preparation.

The relationship between knowledge of and importance of preparation for procedures involved in a due process hearing was investigated using Pearson product-moment correlation coefficient. Preliminary analyses were performed to ensure no violation of the assumptions of normality, linearity, and homoscedasticity. There was a positive correlation between the two variables \([ r = .36, n = 194, p = .000 ]\). This correlation is considered medium according to Cohen’s standards. 

Knowledge of helps to explain nearly 13 percent of the variance in the ratings of the respondents on the perceptions of importance of preparation.
The relationship between *knowledge of* and *importance of preparation for* intervention strategies to use before referring a student for an evaluation was investigated using Pearson product-moment correlation coefficient. Preliminary analyses were performed to ensure no violation of the assumptions of normality, linearity, and homoscedasticity. There was a positive correlation between the two variables \[ r = .21, n = 194, p = .004 \]. This correlation is considered small according to Cohen’s standards. *Knowledge of* helps to explain approximately 4 percent of the variance in the ratings of the respondents on the perceptions of importance of *preparation*.

The relationship between *knowledge of* and *importance of preparation for* scheduling time for collaboration among general education and special education teachers was investigated using Pearson product-moment correlation coefficient. Preliminary analyses were performed to ensure no violation of the assumptions of normality, linearity, and homoscedasticity. There was a positive correlation between the two variables \[ r = .28, n = 194, p = .000 \]. This correlation is considered small according to Cohen’s standards. *Knowledge of* helps to explain about 8 percent of the variance in the ratings of the respondents on the perceptions of importance of *preparation*.

The relationship between *knowledge of* and *importance of preparation for* providing a range of educational placement options for students with disabilities was investigated using Pearson product-moment correlation coefficient. Preliminary analyses were performed to ensure no violation of the assumptions of normality, linearity, and homoscedasticity. There was a positive correlation between the two variables \[ r = .341, n = 194, p = .000 \]. This correlation is considered medium according to Cohen’s standards.
Knowledge of helps to explain about 12 percent of the variance in the ratings of the respondents on the perceptions of importance of preparation.

The relationship between knowledge of and importance of preparation for curricular differentiation which supports the diverse needs of students was investigated using Pearson product-moment correlation coefficient. Preliminary analyses were performed to ensure no violation of the assumptions of normality, linearity, and homoscedasticity. There was a positive correlation between the two variables \([r=.39, n=194, p=.000]\). This correlation is considered medium according to Cohen’s standards.

Knowledge of helps to explain nearly 15 percent of the variance in the ratings of the respondents on the perceptions of importance of preparation.

The relationship between knowledge of and importance of preparation for instructional differentiation which supports the diverse needs of students was investigated using Pearson product-moment correlation coefficient. Preliminary analyses were performed to ensure no violation of the assumptions of normality, linearity, and homoscedasticity. There was a positive correlation between the two variables \([r=.42, n=194, p=.000]\). This correlation is considered medium according to Cohen’s standards.

Knowledge of helps to explain approximately 17 percent of the variance in the ratings of the respondents on the perceptions of importance of preparation.

The relationship between knowledge of and importance of preparation for differentiation in grading practices for students with disabilities was investigated using Pearson product-moment correlation coefficient. Preliminary analyses were performed to ensure no violation of the assumptions of normality, linearity, and homoscedasticity.
There was a positive correlation between the two variables $r=.47, n=194, p=.000$. This correlation is considered medium according to Cohen’s standards. Knowledge of helps to explain approximately 22 percent of the variance in the ratings of the respondents on the perceptions of importance of preparation.

Next, PCA was performed in an attempt to reduce the set of 24 variables to a smaller number of distinct components or factors. The data for knowledge of and importance of preparation for were analyzed separately. This method is used for computing coarse factor scores (Grice, 2001). Bartlett’s Test of Sphericity is used to check that the original variables are sufficiently correlated. This should be at the significant level ($p < 0.05$). If not, factor analysis is not appropriate. For this study the significance was $p=.000$ for both knowledge of and importance of preparation for special education. Therefore, factor analysis was appropriate to perform. The Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO) indicates whether you have sufficient items for each factor. It should be over 0.7. Further, Kaiser labeled the levels as: “>.9 as marvelous; >.8 as meritorious; >.7 middling, > .6 as mediocre, >.5 as miserable, and <.5 as unacceptable” (George & Mallery, 2007, p. 256). In this research study the KMO was .938 for knowledge of, and .901 for importance of preparation for special education, which Kaiser would term as “marvelous”.

Principal component analysis with a Varimax rotation was selected as the extraction method to examine data relating to knowledge of special education. Eigenvalues and the scree test were used to determine the number of components to be retained. By default, eigenvalues are retained if 1.00 or above. However, there were a
total of five that were at or above 1.00 and, based on the scree criterion, another indicator of the number of variables loading, the cutoff is at the elbow and indicated the retention of two or three components. Figure 4.49 captures the visual picture. The two component solution was most interpretable and was used here.

![Scree Plot](image)

Figure 4.49 Scree Plot for the 24 Questionnaire Items of the Instrument Relating to *Knowledge Of* Special Education Used for the Study

Next, the cutoff point for component loading was .40. Communality, which looks at the strength of association among variables, should be .4 or higher. All were above this level. Table 4.16 summarizes the results of the factor analysis.
<table>
<thead>
<tr>
<th>Component</th>
<th>Questionnaire Item</th>
</tr>
</thead>
</table>
| **Component 1: Special Education Processes** | Timelines in developing the IEP (.834)  
Coordinating MFE/ETR meetings (.761)  
Interpreting MFEs/ETRs (.703)  
Collaborating with parents throughout the evaluation process (.676)  
Collaborating with parents throughout the IEP process (.673)  
Interpreting IEPs (.615)  
Characteristics of different disabilities (.563)  
Procedures for mediation (.555)  
Procedures involved in a due process hearing (.525)  
Specific legislation impacting students with disabilities (.473) |
| **Component 2: Inclusive Practices** | Instruction differentiation (.813)  
Curricular differentiation (.797)  
Differentiation in grading practices (.736)  
Intervention strategies to use before referring a student (.719)  
Selecting effective staff for special education (.675)  
Evaluating the effectiveness of special education staff (.673)  
Providing a range of educational placement options (.577)  
Collaborating with parents about discipline (.575)  
Scheduling time for collaboration among teachers (.565)  
Identifying professional development needs (.555)  
Supporting teachers with individualized behavior plans (.544)  
Procedures for disciplining students with disabilities (.534) |

Table 4.16  Conceptual Dimensions of the Instrument Importance Of

Principal component analysis with a Varimax rotation was also selected as the extraction method to examine data relating to importance of preparation for special education. Eigenvalues and the scree test were used to determine the number of components to be retained. Based on the scree plot and interpretation of components, the two factor solution was retained. Figure 4.50 captures the visual picture.
Next, the cutoff point for component loading was .40. Communality, which looks at the strength of association among variables, should be .4 or higher. All were above this level. Table 4.17 summarizes the results of the factor analysis.
<table>
<thead>
<tr>
<th>Component</th>
<th>Questionnaire Item</th>
</tr>
</thead>
</table>
| **Component 1:** Special Education Processes | Timelines in developing the IEP (.841)  
Coordinating MFE/ETR meetings (.809)  
Coordinating IEP meetings (.782)  
Collaborating with parents throughout the IEP process (.772)  
Timelines in developing the MFE (.724)  
Collaborating with parents throughout the evaluation process (.681)  
Interpreting MFEs/ETRs (.679)  
Procedures involved in a due process hearing (.666)  
Interpreting IEPs (.642)  
Procedures for mediation (.631)  
Collaborating with parents about discipline (.512)  
Procedures for disciplining students with disabilities (.509)  
Specific legislation impacting students with disabilities (.485)  
Characteristics of different disabilities (.476) |
| **Component 2:** Inclusive Practices | Instruction differentiation (.843)  
Curricular differentiation (.832)  
Scheduling time for collaboration among teachers (.698)  
Providing a range of educational placement options (.644)  
Differentiation in grading practices (.609)  
Intervention strategies to use before referring a student (.593)  
Evaluating the effectiveness of special education staff (.583)  
Supporting teachers with individualized behavior plans (.546)  
Identifying professional development needs (.537)  
Selecting effective staff for special education (.444) |

**Table 4.17** Conceptual Dimensions of the Instrument Relating to *Importance of Preparation* for Special Education

The correlation between factors is based on coarse factor score constructs. The simple mean of the items is computed to create a new variable. According to Cohen’s standards there are medium correlations between *knowledge of special education processes* and *importance of preparation for inclusive practices* (.394), *knowledge of inclusive practices* and *importance of preparation for inclusive practices* (.412), and *knowledge of inclusive practices* and *importance of preparation for special education processes* (.422). There was a large correlation according to Cohen’s standards between *knowledge of special education processes* and *importance of preparation for special education processes*.  

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education processes (.564), importance of preparation for inclusive practices and importance of preparation for special education processes (.619), and knowledge of inclusive practices and knowledge of special education processes (.781). The correlations among the four components or factors are presented in Table 4.18.

<table>
<thead>
<tr>
<th></th>
<th>Importance of Preparation for Special Education Processes</th>
<th>Importance of Preparation for Inclusive Practices</th>
<th>Knowledge of Special Education Processes</th>
<th>Knowledge of Inclusive Practices</th>
</tr>
</thead>
<tbody>
<tr>
<td>Importance of Preparation for Special Education Processes</td>
<td>1.00</td>
<td>.619</td>
<td>.564</td>
<td>.422</td>
</tr>
<tr>
<td>Importance of Preparation for Inclusive Practices</td>
<td>.619</td>
<td>1.00</td>
<td>.394</td>
<td>.419</td>
</tr>
<tr>
<td>Knowledge of Special Education Processes</td>
<td>.564</td>
<td>.394</td>
<td>1.00</td>
<td>.781</td>
</tr>
<tr>
<td>Knowledge of Inclusive Practices</td>
<td>.422</td>
<td>.419</td>
<td>.781</td>
<td>1.00</td>
</tr>
</tbody>
</table>

*Table 4.18*  Correlation Between Factors Based on Coarse Construct
Research Question 6: What is the reliability of the survey questionnaire?

Reliability of the instrument used in the research study was explored through Cronbach’s alpha coefficient. Cronbach's alpha is a measure of internal consistency. It describes how closely related a set of items are as a group. Huck (2008) explains that the Cronbach's alpha coefficient of a scale should be above .7. Cronbach’s Alpha was calculated for the pilot study and the actual study. The Cronbach’s Alpha increased from .938 to .957. The results were also determined for knowledge of and importance of preparation for the pilot and actual study. Data provided in Table 4.19 indicate the reliabilities for the instrument. The bolded $r$ values represent the reliability coefficients.

<table>
<thead>
<tr>
<th>Pilot Study</th>
<th>Actual Study</th>
</tr>
</thead>
<tbody>
<tr>
<td>$r = .938$</td>
<td>$r = .957$</td>
</tr>
<tr>
<td>(Items 1-24: knowledge of and importance of preparation for)</td>
<td>(Items 1-24: knowledge of and importance of preparation for)</td>
</tr>
<tr>
<td>$r = .943$</td>
<td>$r = .952$</td>
</tr>
<tr>
<td>(Items 1-24: knowledge of)</td>
<td>(Items 1-24: knowledge of)</td>
</tr>
<tr>
<td>$r = .934$</td>
<td>$r = .933$</td>
</tr>
<tr>
<td>(Items 1-24: importance of preparation for)</td>
<td>(Items 1-24: importance of preparation for)</td>
</tr>
</tbody>
</table>

Table 4.19 Cronbach’s Alpha Reliability of Instrument According to Questionnaire Items 1-24

Research Question 7: What types of comments and additional information did the respondents provide?

On the last page of the survey questionnaire booklet, principals were encouraged to provide any comments or additional information they would like. A total of 27
participants provided responses. Some principals provided additional information on several topics. The researcher typed each on paper. Then, the researcher worked with two persons: one who has expertise, as well as experience, with special education; and another who has expertise in areas of education, but not special education or K-12 educational leadership. The comments were then categorized. A summary is provided below in Table 4.20.

<table>
<thead>
<tr>
<th>Construct Descriptors</th>
<th>Number of Responses</th>
<th>Sample Quotations from responses of the Request for Comments or Additional Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preparation of Principals for Special Education a High Priority</td>
<td>10</td>
<td>“Special education is a very important part of an administrator’s job. I have always said that every administrator should be required to have more training in this area.”</td>
</tr>
<tr>
<td>District Level Administrators Coordinate Special Education Services for Principals at the Building Level</td>
<td>8</td>
<td>“We have an excellent Director of Special Education who provides information, coordinates and supervises our program, which is a tremendous help to me as a building administrator.”</td>
</tr>
<tr>
<td>District Level Administrator is a Resource for Information Regarding Special Education</td>
<td>6</td>
<td>“Our district has a Special Programs Coordinator who has taught each administrator well regarding special education.”</td>
</tr>
<tr>
<td>Learned About Special Education Mostly Through Role as Principal</td>
<td>5</td>
<td>“I’ve learned what I know on the job and it’s never enough.”</td>
</tr>
<tr>
<td>Philosophy of Special Education</td>
<td>4</td>
<td>“Special education is not a department, but rather a support service that works handily with all regular teachers.”</td>
</tr>
<tr>
<td>Important Research Project</td>
<td>3</td>
<td>“Thank you for researching this.”</td>
</tr>
<tr>
<td>Unique Circumstances</td>
<td>2</td>
<td>“There are five elementary buildings in our district. Mine is the largest and only building with a special education subgroup.”</td>
</tr>
<tr>
<td>Special Education Staff Provide Effective Support</td>
<td>2</td>
<td>“I have special education staff schedule meetings, otherwise I would spend even more time with special education tasks/paperwork.”</td>
</tr>
</tbody>
</table>

*Table 4.20* Collective Responses of the Request for Comments or Additional Information
Table 4.20 Continued

<table>
<thead>
<tr>
<th>Professional Experience in Special Education a Tremendous Asset</th>
<th>1</th>
<th>“Having a background in special education has been a tremendous asset as a building administrator.”</th>
</tr>
</thead>
<tbody>
<tr>
<td>Staff Need to be Educated in Special Education</td>
<td>1</td>
<td>“Special education is an integral part of our building and educational process. Many students entering today have special education needs, and staff must be trained to meet these needs.”</td>
</tr>
</tbody>
</table>
Chapter 5

DISCUSSION OF THE RESULTS

The purpose of this chapter was to summarize the findings and implications of the research study, detail personal learnings about the research process, and present recommendations to further the study.

Framing the Study

The study was designed and conducted as descriptive survey research. The purpose was to gain insight into and accurately depict the perceptions of principals of schools in Ohio which includes at least one primary grade level (kindergarten, first, second or third grade) regarding special education. The target population for this study was principals of schools which were part of city, exempted village, and local districts in Ohio. There were a total of 1846 schools which met these criteria. Raosoft® sample size calculator recommended that 319 of the 1846 schools should be sampled. An additional 30 percent was added to the sample size, increasing the sample to 415 for the study, which is 22.48 percent of the target and accessible population. There were 195 respondents who returned completed questionnaires, 194 of which supplied usable data.
Specifically, principals self-reported their perceived knowledge of, as well as importance of preparation for, specific elements of special education. Seven research questions guided me in thoroughly exploring this. Appropriate statistical measures were used to interpret the data. The survey questionnaire was designed, then adapted in order for the collection of data to be considered valid and reliable. The questionnaire was printed in booklet form, and was comprised of 35 items which require responses. Part 1 included 24 elements specifically relating to special education. Using a multi-anchored scale, two six-point summated ratings were provided in Part I to explore the knowledge of principals, as well as the importance of it to their effectiveness. Part II consisted of six questions. Principals provided detailed demographic information about their school. Part III was the final section. It also consisted of five items. Principals provided professional information about themselves. The back of the questionnaire provides a large area for participants to offer additional information or comments.

Interpretation of Findings

**Demographic Data**

To describe the population of the study according to a predetermined set of demographic factors (type of district, grade levels included in the school, current adequate yearly progress status relating to students with disabilities, student enrollment of school, percentage of student enrollment identified with a disability, disability categories served, state in which initial principal licensure earned, sources of information regarding special education, years completed as a principal, years of professional experience in public schools, average percentage of work day spent on special education).
Summarizing demographic factors, I first researched the categorization of public schools in Ohio. City districts made up 58.072 percent of the districts, 4.767 percent were exempted village, and 37.161 percent were local. Interestingly, the principals from city districts 49.5 percent responded, which was a lower average than the overall mean of the State of Ohio (Table 4.1). However, 8.2 percent of principals from exempted villages and 43.4 percent of local districts replied, which was at a higher average than the mean of the state.

According to the responding principals 100 percent had primary grade levels included in their school (Table 4.2). AYP relating to students with disabilities was not met by 41 percent, while 37.6 percent did (Table 4.3). However, AYP is not applicable for a 20.6 percent of the schools. I recognize that this could occur for two reasons. First, baseline data for the Ohio Achievement Assessment (OAA) begins in grade three. AYP would not be applicable if the school does not include at least grade three. Secondly, AYP is only assessed if at least 30 students in the school fall into this category.

Data regarding the numbers of students enrolled in schools were examined. The most frequently occurring student enrollment was 45.4 percent, which was in the 0-399 category (Table 4.4). The majority of respondents (54.6%) reported that their schools had a special education population between 10-19 percent (Table 4.5), and that 36.1 percent of principals stated that they spent between 10-19 percent of their time on elements of special education (Table 4.11). There were also two items of interest to me. First, there was a significant difference between the percent of the students enrolled who were identified with a disability and the average percentage of the work day spent on
elements of special education by principals. Based on wisdom of practice, I predicted that a higher percentage of time was spent than the percentage of students with disabilities. However, this was not the case. The other item of interest and concern was that three participants did not know the percentage of students with disabilities in their school. From wisdom of practice, numerous forms of disaggregated data were provided to principals at the state and local level.

The federal government has identified 12 categories of disability. Principals reported the disability categories which described students who are currently served at their school (Table 4.6). Over half of principals reported that students in their schools were identified with a speech/language/communication disorder, learning disability, autism spectrum disorder, other health impaired, cognitive disability/mental retardation, emotional disturbance, and/or multiple disabilities. The respondents were not, however, asked to provide exact percentages of the student population which were identified with each category of disability. I was struck by the number of schools who had students diagnosed with autism spectrum disorder (87.6). Additionally, I was surprised by the number of these schools which had students with deaf-blindness (9.8%). Because this is a combined sensory disorder, students typically attend schools which specialize in this.

Principals were asked to identify their sources of information regarding special education (Table 4.8). They could check as many as were applicable. The 87.1 percent indicated that while principal, they consulted with personnel within the school district who were knowledgeable about special education. Next, information gathered on their own was identified by 59.3 percent principals. This specific category was further
clarified by participants. They provided the following as examples of information
gathered on their own: 60 percent through workshops; 39 percent provided no
clarification; 36 percent through research journals; 31 percent through books; 29 percent
through the internet; one percent through dissertation in the field; and one percent
through videos. Then, the participants identified other sources of information:
experience with special education as a general education teacher (76.8%); professional
development provided by the school district (66.5%); coursework in special education in
their principal preparation program (56.7%); coursework in special education in their
undergraduate program (52.1%); experience as a special education administrator
(21.1%); a family member (19.1%); undergraduate degree in special education (18%);
experience as a special education teacher (17%) an acquaintance (12.4%); and graduate
degree in special education (4.1%). Of interest to me was that when asked to provide the
sources of information regarding special education, the four most common responses
selected by respondents had nothing to do with formal preparation in either their
undergraduate or graduate preparation programs.

With regard to initial principal licensure, 97.4 percent of respondents earned
theirs in Ohio (Table 4.7). There was one respondent also from each of the following
states: California, Florida, Indiana, Kentucky, and New York. The majority of
respondents, 50.5 percent, had between 0-9 years of experience as principals (Table 4.9),
while 33.0 percent had between 20-29 years of experience in public education (Table
4.10). I noted that there is not a significant difference among the percentage of principals
who had between 10-19, 20-29, and 30 years or more years of experience in public
education, while approximately half of them had between 0-9 years of experience as a principal.

### Research Question 1

What are the perceptions of Ohio principals in schools which include at least one primary grade level regarding their knowledge of specific elements relating to special education?

Numerical values of 1-6 were self-reported by principals as responses to questions on the questionnaire regarding their knowledge of specific elements of special education in terms of: expert, considerable knowledge, general knowledge, minimal knowledge, recognize only, or no familiarity at all. In reviewing the modal percentage of responses for the level of agreement (Table 4.12), all 24 variables fell under either general knowledge (4) or considerable knowledge (5).

Over half of the respondents believed that they only had general knowledge regarding specific legislation impacting students with disabilities. The majority also perceived that they had general knowledge about identifying professional development needs of all staff regarding special education. Next, principals considered their knowledge general when providing a range of educational placement options for students with disabilities. I realize that a range of educational placement options relates to LRE, which is a part of the specific legislation for students with disabilities.

The respondents also perceived their knowledge as general with procedures for mediation when parents are exercising their due process rights, as well as procedures
involved in a due process hearing. I recognize that the school system has responsibilities in these areas, so procedures are typically handled at the district level.

When exploring the responses from the principals, they believed they had considerable knowledge in elements of special education relating to staffing and evaluation of special education personnel, as well as inclusive practices. Specifically, they perceived they had considerable knowledge in selecting and evaluating the effectiveness of staff. Further, they regarded their knowledge as considerable with inclusive practices relating to intervention strategies to use before referring a student for an evaluation, scheduling time for collaboration among general education and special education teachers, curricular and instructional differentiation which supports the diverse needs of students, and differentiation in grading practices for students with disabilities. I view these as practices that support students with disabilities being exposed to the general education curriculum. This is mandated by NCLB and IDEIA, so clearly a focus of schools.

Next, the histograms (Figures 4.1-4.24) for knowledge of specific elements relating to special education were viewed, and the skewness ratio and kurtosis ratio were determined for each which did not appear to be evenly distributed (Table 4.13). Distribution of responses is considered fairly normal if the ratios are not less than -3 or greater than 3. Three of the elements had a skewness ratio less than -3: specific legislation impacting students with disabilities; timeline in completing a multifactored evaluation (MFE)/evaluation team report (ETR); and scheduling time for collaboration among general education and special education teachers. This indicates that these
elements were negatively skewed. There were extremely small values to the left and extremely large values to the right. I concluded that the principals perceive they have the most knowledge about these particular elements.

Four of the elements had a kurtosis ratio greater than 3: specific legislation impacting students with disabilities; selecting effective staff for special education; timeline in completing a multifactored evaluation (MFE)/ evaluation team report (ETR); and scheduling time for collaboration among general education and special education teachers. This indicates that these elements were leptokurtic. There were more values peaked in the middle.

Research Question 2

Do significant differences exist in the perceptions of Ohio principals in schools which include at least one primary grade level regarding their knowledge of specific elements relating to special education according to demographic characteristics?

When determining whether significant differences existed through ANOVA data analysis, there were no significant differences between groups relating to type of district, percentage of student enrollment identified with a disability, and percentage of day spent on elements of special education regarding their knowledge of specific elements relating to special education. Significant differences did exist between groups for specific legislation impacting students with disabilities. Principals from Ohio indicated a higher level of knowledge than those outside Ohio. However, post hoc analyses could not be completed because there were less than three levels.
Through post hoc analysis of current AYP status relating to students with disabilities, there were significant differences among 11 of the elements between groups: met and did not meet AYP; met and not applicable; and did not meet and not applicable. These 11 elements include specific legislation, timelines and interpreting MFEs, coordinating and collaborating with parents throughout the IEP process, procedures for mediation, and inclusive practices, such as intervention strategies to use before referring a student for an evaluation, providing a range of educational placements for students with disabilities, instructional differentiation, and differentiation in grading practices. There were a couple of interesting findings. When compared to respondents whose schools either met or did not meet AYP, the principals from schools in which AYP is not applicable perceived significantly less knowledge in 11 of the elements. This could indicate that since AYP for students with disabilities does not apply to them that knowledge in these areas is not as necessary to their work. Since information regarding the reason why AYP for students with disabilities is not applicable, further conclusions cannot be made. Clarifying this would be an important recommendation for future research. Related to this, the principals who did not meet AYP reported considerably higher levels of knowledge of 13 of the elements of special education when compared to those whose schools either met AYP or in which AYP was not applicable. This indicates that they have a large enough population of students with disabilities for AYP to applicable, therefore knowledge would be important to their effectiveness.

Post hoc analysis of total student enrollment in school indicated there was a significant difference with one of the elements between groups. The difference was
present in collaborating with parents about discipline of students with disabilities between student enrollments of 0-399 and over 599 students. Principals from schools with over 599 students believed they had measurably more knowledge. There are more opportunities to collaborate with parents when you have a larger student population. Additional information would need to be gathered through a revision of the survey questionnaire to clarify who in the building is administratively responsible for special education.

Through post hoc analysis of years of experience as a principal, there were significant differences among five of the elements between groups: 0-9 years; 10-19 years; 20-29 years; and/or 30 years and up. These elements included interpreting MFEs/ETRs, supporting teachers in the implementation of individualized behavior plans, procedures used in disciplining students with disabilities, collaboration with parents about discipline of students with disabilities, and scheduling time for collaboration among general and special education teachers. Through examination of these differences it appears that those with more years of experience perceive considerably higher amounts of knowledge of these elements. It also indicates that principals are learning about special education through their experiences as principals.

Finally, post hoc analysis of years of professional experience in public education indicated there were significant differences among 13 of the elements between groups: 0-9 years and 10-19 years; 10-19 years and 20-29 years; and 10-19 years and 30 years and up. This included elements relating to specific legislation impacting students with disabilities, characteristics of different disabilities, evaluation the effectiveness of special
education staff, interpreting MFEs/ETRs, collaborating with parents throughout the evaluation process, collaborating with parents throughout the IEP process, supporting teachers in the implementation of individualized behavior plans, procedures for mediation and due process, intervention strategies to use before referring a student for an evaluation, scheduling time for collaboration among general and special education teachers, and curricular and instructional differentiation. Principals who indicated more years in public education reported measurably higher degrees of knowledge in 12 of the elements. Surprisingly, with the element of collaboration with parents throughout the evaluation process, principals with no more than 9 years of experience indicated considerably higher degrees of knowledge compared to those with between 10-19 years of experience. Again, it appears that those with more years of experience believe measurable higher levels of knowledge of these elements. This again indicates that educators are gaining knowledge about special education through their years of experiences.

<table>
<thead>
<tr>
<th>Research Question 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>What are the perceptions of Ohio principals in schools which include at least one primary grade level regarding the importance of preparation for specific elements relating to special education?</td>
</tr>
</tbody>
</table>

Numerical values were assigned by principals as responses to questions on the questionnaire regarding their importance of preparation for specific elements of special education in terms of: critically essential, essential, needed, useful, minimally useful, or
of no importance. In reviewing the modal percentage of responses for the level of agreement (Table 4.14), all 24 variables fell under either essential (5) or critically essential (6).

There are eight elements which directly relate to the MFE/ ETR and IEP processes. Of those, the principals perceived that knowledge of five of these were essential to their work: coordinating MFE/ ETR meetings; interpreting MFEs/ ETRs; coordinating IEP meetings; interpreting IEPs; and collaborating with parents throughout the IEP process. There was an even split between essential and critically essential for timelines in developing the individualized education program (IEP). The respondents viewed timeline in completing a multifactored evaluation (MFE/ evaluation team report (ETR) and collaborating with parents throughout the evaluation process as critically essential to their work. I acknowledge that there are legalities involved with these elements. Failure to do so could result in legal action against the school personnel. Interesting to me is that the principals found specific legislation impacting students with disabilities and characteristics of different disabilities as essential, not critically essential to their work.

There are elements relating to inclusive practices which include: supporting teachers in the implementation of individualized behavior plans, intervention strategies to use before referring a student for an evaluation, scheduling time for collaboration among general education and special education teachers, providing a range of educational placement options for students with disabilities, curricular and instructional differentiation which supports the diverse needs of students, and differentiation in
grading practices for students with disabilities. The principals believed that all of these elements were essential to their work. I appreciate that inclusive practices are a focus of the mandate put forth through NCLB and IDEIA, that students with disabilities be exposed to the general education curriculum. Of interest to me was that the element of identifying professional development needs of all staff regarding special education was also rated as essential, rather than critically essential.

The examination of the elements concerning selecting effective staff for special education and evaluating special education staff indicates that while the selection is critically essential, that knowledge of evaluating them was essential to their work. I understand that retention or dismissal of staff once they are selected is based on their effectiveness. Additionally, there are very clear legal processes that must be followed.

The elements relating to the discipline of students with disabilities include procedures used in disciplining students with disabilities and collaborating with parents about discipline of students with disabilities. Both were marked at the essential level. I recognize that there are strict processes required.

The final two elements relate to due process. Included are procedures for mediation when parents are exercising their due process rights and procedures involved in a due process hearing. Respondents perceived that knowledge of these was critically essential to their work. Both have significant legal ramifications.

Next, the histograms (Figures 4.25-4.48) for importance of preparation for specific elements relating to special education were viewed, and the skewness ratio and kurtosis ratio were determined for each which did not appear to be evenly distributed
(Table 4.15). Distribution of responses is considered fairly normal if the ratios are not less than -3 or greater than 3. Thirteen of the elements had a skewness ratio less than -3: selecting effective staff for special education, evaluating the effectiveness of special education staff, timeline in completing a multifactored (MFE)/evaluation team report (ETR), coordinating MFE/ETR meetings, collaborating with parents throughout the evaluation process, timeline in developing the individualized education program (IEP), coordinating IEP meetings, interpreting IEPs, collaborating with parents throughout the IEP process, supporting teachers in the implementation of individualized behavior plans, procedures used in disciplining students with disabilities, collaborating with parents about discipline of students with disabilities, and scheduling time for collaboration among general education and special education teachers. This indicates that these elements were negatively skewed. There were extremely small values to the left and extremely large values to the right. I conclude that these are the elements the principals perceive as the most important to their work with students with disabilities.

Four of the elements had a kurtosis ratio less than or greater than 3. The element relating to interpreting IEPs was less than three. This indicates that it was platykurtik, which suggests there are more values in the tail than in a normal distribution. Three were above 3: selecting effective staff for special education; evaluating the effectiveness of special education staff; and supporting teachers in the implementation of individualized behavior plans. This indicates that these elements were leptokurtic. There were more values peaked in the middle.
Research Question 4

Do significant differences exist in the perceptions of Ohio principals in schools which include at least one primary grade level regarding the importance of preparation for specific elements relating to special education according to demographic characteristics?

When determining whether significant differences existed through ANOVA data analysis, no significant differences existed between groups relating to percentage of student enrollment identified with a disability, initial licensure for principal preparation program, years of experience as a principal, and years of professional experience in public education regarding the importance of preparation for specific elements relating to special education. Post hoc analysis indicated that no significant differences existed between groups relating to type of district. Significant differences did exist however, between groups according to the other demographic characteristics.

Through post hoc analysis of current AYP status relating to students with disabilities, there were significant differences among four of the elements between groups: met and not applicable; and did not meet and not applicable. These elements included specific legislation impacting students with disabilities, timelines in completing MFEs/ETRs, interpreting IEPs, and collaborating with parents throughout the IEP process. There was a noteworthy finding. Principals of schools which are rated for their AYP status perceive that information regarding specific legislation impacting students with disabilities, timelines in completing MFEs/ETRs, and all elements relating to IEPs is more important to their effectiveness than those of schools which AYP is not applicable.
Post hoc analysis of total student enrollment in school indicated there were significant differences among four of the elements between groups. This included interpreting IEPs, collaboration with parents about discipline of students with disabilities, procedures involved in due process rights, and scheduling time for collaboration among general and special education teachers. The differences were present between two groups: 0-399 students and 400-599 students; and 0-399 students and over 599 students. Principals from schools with large student populations believed that these elements were considerably more important to their effectiveness than those with no more than 399 students. There are more opportunities to need knowledge and apply these when you have a larger student population.

Finally, post hoc analysis of percentage of day spent on elements of special education indicated there was a significant difference with one element between groups: 20-29 percent of the day and 30-39 percent of the day; and 30-39 percent of the day and 50 percent of the day and up. Both related to the element regarding curricular differentiation which supports the diverse needs of students. In both cases, principals who spent between 30-39 percent of their day indicated that preparation in this area is greatly more important than those who spent 20-29 or 50 percent of the day and up on special education.
Research Question 5

Is there a relationship between the perceptions of Ohio principals in schools which include at least one primary grade level regarding their knowledge of and importance of preparation for specific elements relating to special education?

First, Pearson Product-Moment Correlation was used to describe the correlations between the principal knowledge of and their perception of importance of preparation for each item. The correlations ranged from small (.21) to large (.61) according to Cohen’s standards. The means of survey questionnaire items 1-24, which are presented in Table 4.13 and Table 4.15, also provided important information. The numerical values were self-reported by principals as responses to questions on the questionnaire regarding their knowledge of specific elements of special education in terms of: expert, considerable knowledge, general knowledge, minimal knowledge, recognize only, or no familiarity at all, while values were assigned about the importance of preparation for specific elements of special education in terms of: critically essential, essential, needed, useful, minimally useful, or of no importance.

The correlation between knowledge of and importance of preparation for was large according to Cohen’s standards for six of the elements of special education. This occurred with the following elements: specific legislation impacting students with disabilities, coordinating MFE/ETR meetings, collaborating with parents throughout the evaluation process, coordinating IEP meetings, collaborating with parents throughout the IEP process, and collaboration with parents about discipline of students with disabilities. This indicates a strong positive relationship between the two. In general, principals
perceive that they have the appropriate level of knowledge needed for their work. Of interest was that this included all three elements relating to collaboration with parents.

The comparison of means regarding knowledge of and importance of preparation for was medium according to Cohen’s standards for 16 of the elements of special education. This included characteristics of different disabilities, selecting effective staff for special education, evaluating the effectiveness of special education staff, identifying professional development needs of all staff regarding special education, timeline in completing a MFE/ETR, interpreting MFES/ETRs, timeline in developing the IEP, interpreting IEPs, supporting teachers in the implementation if individualized behavior plans, procedures used in disciplining students with disabilities, procedures for mediation when parents are exercising their due process rights, procedures involved in a due process hearing, providing a range of educational placement options for students with disabilities, curricular differentiation which supports the diverse needs of students, instructional differentiation which supports the diverse needs of students, and differentiation in grading practices for students with disabilities. This suggests a moderate, but positive relationship between the two. Essentially, principals perceive that their level is not adequate. There is a moderate discrepancy between their level of knowledge and what is needed for their work. It was notable that among the 16, all elements relating to staff, due process, and differentiation were included.

The correlation between knowledge of and importance of preparation for was small according to Cohen’s standards for two of the elements of special education. This consisted of the following elements: intervention strategies to use before referring a
student for an evaluation; and scheduling time for collaboration among general education and special education teachers. There is a considerable discrepancy between their knowledge and the preparation required. In general, principals indicated that they clearly do not have nearly the understanding needed for their work.

To further explore the relationship between the perceptions of principals regarding their knowledge of and importance of preparation for specific elements relating to special education, principal component analysis was conducted with a Varimax rotation. The data for knowledge of and importance of preparation for were analyzed separately. Relating to knowledge of special education, all 24 variables loaded onto two components (Table 4.16). The scree plot (Figure 4.49) supported this. The items included in Component 1 reflect knowledge of special education processes. Component 2 describes knowledge of inclusive practices.

The data for importance of preparation for special education indicates that all 24 variables also loaded onto two components (Table 4.17). The scree plot (Figure 4.50) supported this. The items included in Component 1 capture importance of preparation for special education processes. Component 2 portrays importance of preparation for inclusive practices.

Correlations according to Cohen’s standards were explored among the Components 1 and 2 relating to knowledge of and Components 1 and 2 relating to importance of preparation for. The strongest correlations were between the Components 1 and 2 relating to knowledge of, and also Components 1 and 2 relating to importance of preparation for.
I viewed this as exploratory in nature. As reviewed in chapter 3, research conducted by Bateman and Bateman (2006) identified specific elements of special education, which fall into seven categories. These included: 1) laws and legislation impacting students with disabilities, 2) staffing and evaluation of special education personnel, 3) inclusive practices, 4) eligibility for special education processes, 5) individualized education program (IEP) processes, 6) discipline of students with disabilities, and 7) due process. Components did not cleanly fall into these seven categories, but rather, represented combinations of these for this sample of principals.

Research Question 6

What is the reliability of the survey questionnaire?

The survey questionnaire used in the pilot study had 24 variables relating to elements of special education (Table 4.17). It had a Cronbach's Alpha reliability of .938. Knowledge of had a reliability of .943 and importance of preparation for had a reliability of .934. When used in the actual study the reliability increased to .957. This is a slight increase. Further, in the research study knowledge of had a reliability of .952 and importance of preparation for had a reliability of .933. No changes were made from the pilot study to actual study however, the number of participants included increased, which may be the rationale for increased internal consistency. I was pleased that the internal consistency was so high, indicating that the items measured the same thing.
Research Question 7

What types of comments or additional information did the respondents provide?

A total of 27 participants provided comments and additional information on the last page of the survey questionnaire booklet (Table 4.20). One respondent stated that all staff need to be trained in special education. Some principals provided responses on several topics. First, there was the belief that preparation of principals for special education should be a high priority for developers of principal preparation programs. Interestingly, some respondents had district level administrators who coordinate special education services for principals at the building level. I recognize that this could have an impact on the responses of these principals regarding the importance of preparation for elements of special education.

Respondents clarified their sources of information. Some have district level administrators, who are a resource for them. Others learned about special education mostly “on the job” through their role as principal. Additionally, respondents have special education staff that provided effective support to them. Also, those principals with a background in special education, either as a teacher and/ or administrator, have found this to be an advantage.

A few of the principals provided their philosophy of special education, describing how their systems within their schools are supported by their beliefs. Others described their unique circumstances in their schools. Finally, three respondents found the research study to be important.
Overall, the comments supported the reason I became interested in this area of research and the findings in the study. As a former principal, I was very appreciative of my experiences as a special education teacher and special education administrator. I watched as other principals without this background struggled to manage all the responsibilities.

Implications of Findings

It is evident through this research study that principals perceive that they do not feel adequately prepared in the administration of special education to students with disabilities. Findings indicate that college and universities with formal preparation programs are not equipping those who are seeking to be principals with the knowledge and skills required. As demonstrated by the results of this study, most are learning on the job. For currently practicing principals, opportunities for professional development need to be provided by the school district or associations which serve school administrators. The respondents distinguished which elements are important to their effectiveness as a principal, which will allow principal preparation programs, school districts, and professional associations to address their needs.

Colleges and universities which offer principal preparation programs are guided by set standards from NCATE, TEAC, the Ohio Standards for Principals, and arguably CEC Standards for Special Education Administrators. Restructuring of the context, process, and content of their program is crucial in order to appropriately prepare future administrators in this area. Only 56.7 percent of respondents indicated they had
coursework in special education in their preparation program. Data from this study also indicates it was not sufficient to meet the demands.

Respondents were asked their perceptions pertaining to the importance of preparation for specific elements relating to special education (Table 4.14). For each of the 24 elements, I added together the number of respondents which believed they were essential (4) and critically essential (5) to their work to prioritize areas of focus. The highest priority involved three components: staffing and evaluation of personnel; discipline of students with disabilities; and inclusive practices. There are moderate needs for IEP processes, laws and legislation, and eligibility for special education. The principals self-reported that due process was a low level need.

For currently practicing principals, professional development is called for based on results from this study. The Standards for Professional Development set by the ODE (2008) depict professional development as ongoing, systematic, and connected to the everyday work. It concentrates on the individual needs, as well as the overall needs of the organization.

When analyzing the relationship between the perceived knowledge of principals compared to importance of preparation for elements of special education, clear areas of focus were identified. The highest priority involves those elements relating to inclusive practices. Data from respondents indicate that intervention strategies to use before referring a student for an evaluation and scheduling time for collaboration among general and special education teachers as the most critical. Additionally, professional development in inclusive practices relating to providing a range of educational placement
options for students with disabilities, and differentiation of curriculum, instruction, and grading practices is important.

Analysis of data from principals also indicated that they had knowledge, but not at the level necessary, for four other components. Professional development is a moderate priority with the components of special education relating to staffing and evaluation of personnel, IEP processes, discipline of students with disabilities, and due process.

Overall, the findings did indicate principals believed that their level of knowledge corresponds with the level needed for their work relating to two components. These included elements relating to laws and legislation; and eligibility for special education.

When examining the post hoc analysis of current AYP status relating to students with disabilities, of note was the discrepancy between the means of the group not applicable, with met AYP and did not meet AYP. In all instances those principals of schools in which AYP does not apply rated knowledge of and importance of preparation for significantly lower. I am concerned that these principals may not have the same level of urgency to meet the needs of students with disabilities since it is not published by the ODE in the school report card, therefore made public. Professional development could begin with the examination of assessment results of students with disabilities. If expected progress is not being made, discussions should focus on the Ohio Standards for Principals, which include the importance of creating a shared vision and goals relating to meeting the needs of all students.

Associated with this, I am concerned about the post hoc analysis of current AYP status relating to students with disabilities. Specifically, this pertains to the discrepancy
between the means of the group which did not meet AYP, with those that did meet AYP and schools in which AYP was not applicable. In all instances the principals of schools which did not meet AYP rated knowledge of and importance of preparation for significantly higher. There could be several possible reasons why this occurred. First, they may have the knowledge, but not have the skills to be able to apply it. The schools also may not have the resources and materials to actually put into the practice the knowledge the principals have in these areas. Further, those schools may have a higher percentage of students at the moderate-severe level of disability, making it more challenging to meet AYP.

Professional associations, such as the Ohio Association of Elementary School Administrators (OAESA), Ohio Association of Secondary School Administrators (OASSA), and the Council for Exceptional Children (CEC) provide professional development, such as web seminars and workshops, for building leaders. These organizations will be able to use the results of the research to prioritize and create opportunities for principals.

Superintendents and board members from school districts could assess the individual and collective needs of their principals. Then they could evaluate the expertise available within the district to see if it as at the level needed to meet the professional development needs. Typically, districts have directors who are highly educated and have experience in curriculum and instruction, and/or special education. If not, they could seek opportunities for professional development from the professional organizations and associations.
Personal Learnings about Research

This researcher has developed knowledge and skills in researching through the doctoral program at Ohio State University. The coursework in the program was effectively scaffolded in preparation for conducting the study for the dissertation, as well as for future research opportunities.

The process of identifying areas of interests, refining them, and clarifying research questions was a relatively simple part of the research process. Exploring current research regarding principals related to special education was surprising. There is minimal research available related to their knowledge and preparation. Development of the survey questionnaire took nearly a year. It was originally developed for one of my research courses. It was refined based on research and feedback. Gathering the data was somewhat surprising. Research-based strategies were used. Respondent rates, while considered good for survey research using the postal system, were discouraging to me. Analyzing the data, while challenging at times, was the most exciting part of the process. The results helped to clarify further research opportunities.

Recommendations for Future Research

1. Administering an instrument to teachers regarding their knowledge of and importance of preparation for elements of special education would provide their perspective and possible comparisons to principals. The current survey questionnaire would need to be adapted to be applicable to them.
2. Relating to the first recommendation of administering an adapted survey questionnaire to teachers, further research could be conducted comparing the perceptions of general education and special education teachers.

3. The participants in this study were from Ohio. Expanding the research study from just principals in Ohio to a national level by using the same survey questionnaire would allow perceptions of principals to be compared and contrasted throughout the country.

4. Principals of schools which include at least one primary grade level were the subjects in this study. Including additional grade levels in the research study would require adaptation of the survey questionnaire. For example, middle school and high school principals must attend to transition program requirements for students who are 14 years of age and older. Examining possible similarities and differences across grade levels could be identified.

5. The research instrument contains 24 elements of special education. Delving more deeply in this area would be interesting by having respondents identify the five most critical elements to their effectiveness as a principal.

6. Revising the survey questionnaire in order to gain additional information from principals of schools in which AYP is not applicable would be beneficial. The reasoning could be because only grades below grade three are included, or their special education population is below the minimum level.

7. Adding another question to the research instrument requesting the principal of the school to indicate if they have any building-level administrative assistance, such
as an assistant principal, social worker, and/or guidance counselor could offer some important information. Along with that, they could indicate who has the responsibilities relating to the 24 elements.

8. Of interest would be further examining the percentage of the work day as a principal typically spent on elements of special education and the disability categories of students served at their school. An additional comparison could be made regarding time spent if principals would provide data regarding the percentage of mild-moderate versus moderate-severe students with disabilities.

9. Further exploring the percentage of the work day principals typically spent on elements of special education could provide additional data. The 24 elements could be categorized using the components resulting through exploratory factor analysis. The participants could then provide percentages for each component, totaling 100 percent.

10. Updating principal preparation programs to include knowledge and skills relating to the administration of special education is important. This was made clear by the data gathered through this study. The highest priority should be given to elements relating to staffing and evaluation of personnel, discipline of students with disabilities, and inclusive practices.

11. Offering professional development opportunities to educators by colleges and university faculty is common. Elements relating to inclusive practices were identified by the data gathered through this study as the greatest need.
Final Thoughts

The interpretation of the concept of LRE has changed from the first mandate presented in P.L. 94-142. First, it focused on access to an education by students with disabilities. Then, it began looking at the quality of their education. Students began with separate schools. Then they were educated with their peers typically in a separate part of the building, focusing on functional curriculum. Now, we have moved to inclusive practices. NCLB and IDEIA have directed exposure to the general education curriculum. I predict that in the future we will begin to practice the sociocultural model by removing the negative labels associated with disabilities and focusing on the strengths of all students to meet their individual needs.


Ohio Department of Education (2010). Whose IDEA is This? Columbus, OH: Author.


Petzko, V. (2008). The perceptions of new principals regarding the knowledge and skills important to their initial success. NASSP Bulletin, 92 (3), 224-250.


Appendix A: Final Questionnaire
Perceptions Regarding the Importance of Preparation for Special Education

Education Department
Muskingum University
Montgomery Hall
New Concord, Ohio 43762
Part I: Knowledge and Preparation for Special Education

Directions:
1. Circle your response regarding your level of knowledge with each statement.
2. Circle your response regarding the level of importance each statement is to your work.

Your responses are confidential and anonymous.

My level of knowledge with this element.  

No familiarity at all | Recognize only | Minimal understanding | General knowledge | Considerable knowledge | Expert
---|---|---|---|---|---
1 | 2 | 3 | 4 | 5 | 6

The purpose of an individualized education program (IEP).

Please complete both scales.

The level of importance of each element to your work.

Of no importance | Minimally useful | Useful | Helpful | Needed | Essential | Critically essential
---|---|---|---|---|---|---
1 | 2 | 3 | 4 | 5 | 6

This person has a “minimal understanding” of the purpose of an IEP, so circled “3.”

However, this person also believes that having this knowledge is “essential” to their work, so circled “5.”

GUIDE: Knowledge:

Term | Defined | Importance | Defined
---|---|---|---
No familiarity at all | No knowledge | Of no importance | Not needed at all
Recognize only | Familiar with term only | Minimally useful | A little helpful
Minimal understanding | Little knowledge | Useful | Helpful
General knowledge | Basic knowledge | Needed | Desired
Considerable knowledge | A lot of knowledge | Essential | Important
Expert | Authority on this topic | Critically essential | Required
My level of knowledge with this element:

- Not at all familiar
- Recognize only
- Minimal understanding
- General knowledge
- Considerable knowledge
- Expert

The level of importance of each element to your work:

- Of no importance
- Minimally useful
- Useful
- Needed
- Essential
- Critically essential

Please complete both scales.

1 2 3 4 5 6 7

Specific legislation impacting students with disabilities

1 2 3 4 5 6

Characteristics of different disabilities

1 2 3 4 5 6

Selecting effective staff for special education

1 2 3 4 5 6

Evaluating the effectiveness of special education staff

1 2 3 4 5 6

Identifying professional development needs of all staff regarding special education

1 2 3 4 5 6

Timelines in completing a multi-faceted evaluation (MFE/ETR) evaluation team report (ETR)

1 2 3 4 5 6

Coordinating MFE/ETR meetings

1 2 3 4 5 6

Interpreting MFE/ETR's

1 2 3 4 5 6

Collaborating with parents throughout the evaluation process

1 2 3 4 5 6
My level of knowledge with this element: No familiarity at all, Recognize only, Minimal understanding, General knowledge, Considerable knowledge, Expert.

The level of importance of each element to your work: Of no importance, Minimally useful, Useful, Needed, Essential, Critically essential.

Please complete both scales.

1 2 3 4 5 6
Timelines in developing the individualized education program (IEP)
1 2 3 4 5 6
Coordinating IEP meetings
1 2 3 4 5 6
Interpreting IEPs
1 2 3 4 5 6
Collaborating with parents throughout the IEP process
1 2 3 4 5 6
Supporting teachers in the implementation of individualized behavior plans
1 2 3 4 5 6
Procedures used in disciplining students with disabilities
1 2 3 4 5 6
Collaborating with parents about discipline of students with disabilities
1 2 3 4 5 6
Procedures for mediation when parents are exercising their due process rights
1 2 3 4 5 6
Procedures involved in a due process hearing
1 2 3 4 5 6
Please complete both scales.

**My level of knowledge with this element.**

- No familiarity at all
- Recognize only
- Minimal understanding
- General knowledge
- Considerable knowledge
- Expert

**The level of importance of each element to your work.**

- Of no importance
- Minimally useful
- Useful
- Needed
- Essential
- Critically essential

1 2 3 4 5 6

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Part II: Demographic Information

25. In what type of district is your school? (Check one.)
   ______ CITY
   ______ EXEMPTED VILLAGE
   ______ LOCAL

26. What grade levels are included in your school? (Please fill in the blank.)
   GRADES ______ THROUGH _______ ARE INCLUDED IN MY SCHOOL.

27. What is the current adequate yearly progress (AYP) status of your school relating to students with disabilities? (Check one.)
   ______ MET AYP FOR STUDENTS WITH DISABILITIES
   ______ DID NOT MEET AYP FOR STUDENTS WITH DISABILITIES
   ______ NOT APPLICABLE

28. How many students are enrolled in your school? (Check one.)
   ______ 0-99 STUDENTS ARE ENROLLED
   ______ 100-599 STUDENTS ARE ENROLLED
   ______ OVER 999 STUDENTS ARE ENROLLED

29. What percentage of the student enrollment of your school is identified with a disability? (Please fill in the blank.)
   ______% OF THE STUDENTS ENROLLED ARE IDENTIFIED WITH A DISABILITY.

30. What disability categories describe students who are currently served at your school? (Check all that apply.)
   ______ AUTISM
   ______ EMOTIONAL DISTURBANCE
   ______ COGNITIVE DISABILITY/ MENTAL RETARDATION
   ______ DEAF-BLINDNESS
   ______ HEARING IMPAIRED/ DEAF
   ______ LEARNING DISABILITY
   ______ MULTIPLE DISABILITY
   ______ ORTHOPEDIC/ PHYSICAL DISABILITY
   ______ OTHER HEALTH IMPAIRED
   ______ SPEECH / LANGUAGE/ COMMUNICATION DISORDER
   ______ TRAUMATIC BRAIN INJURY
   ______ VISION IMPAIRED/ BLIND
Part III: Professional Information

31. Where did you earn your initial licensure to be a principal? (Check one.)
   — IN OHIO
   — OUTSIDE OHIO. PLEASE INDICATE WHICH STATE: ____________________________

32. What are your sources of information regarding special education? (Check all that apply).
   — A FAMILY MEMBER WITH A DISABILITY
   — AN ACQUAINTANCE WITH A DISABILITY
   — COURSEWORK IN SPECIAL EDUCATION DURING PRINCIPAL PREPARATION PROGRAM
   — COURSEWORK IN SPECIAL EDUCATION DURING UNDERGRADUATE PROGRAM
   — EXPERIENCE AS A GENERAL EDUCATION TEACHER WITH STUDENTS WITH DISABILITIES INCLUDED
   — EXPERIENCE AS A SPECIAL EDUCATION ADMINISTRATOR IN A SCHOOL DISTRICT
   — EXPERIENCE AS A SPECIAL EDUCATION TEACHER
   — GRADUATE DEGREE IN SPECIAL EDUCATION
   — INFORMATION SOUGHT OUT ON YOUR OWN. PLEASE PROVIDE THE SOURCES USED (i.e., research journals, books, workshops, internet, etc.): ____________________________
   — PROFESSIONAL DEVELOPMENT PROVIDED BY THE SCHOOL DISTRICT
   — UNDERGRADUATE DEGREE IN SPECIAL EDUCATION
   — WHILE PRINCIPAL, CONSULTED WITH PERSONNEL WITHIN THE SCHOOL DISTRICT WHO WERE KNOWLEDGEABLE ABOUT SPECIAL EDUCATION
   — OTHER: ____________________________________________________________

33. How many years have you completed as a principal? (Please fill in the blank.)
   ___________ TOTAL NUMBER OF YEARS COMPLETED

34. How many years of professional experience have you completed in public schools. This would include all teaching and administrative experiences. (Please fill in the blank.)
   ___________ TOTAL NUMBER OF YEARS COMPLETED

35. On the average, what percentage of your work day as a principal is typically spent on elements of special education? (Please fill in the blank.)
   ___________ % OF YOUR WORK DAY AS A PRINCIPAL TYPICALLY IS SPENT ON ELEMENTS OF SPECIAL EDUCATION
Please provide any comments or additional information you would like:

Thank you for your participation!
Appendix B: Office of Responsible Research Practices Exemption
Office of Responsible Research Practices
300 Research Administration Building
1960 Kenny Road
Columbus, OH 43210-1063
Phone (614) 688-8457
Fax (614) 688-0366

November 19, 2010

Protocol Number: 2010E0696
Protocol Title: PERCEPTIONS OF OHIO PRINCIPALS IN SCHOOLS WHICH INCLUDE AT LEAST K-3 REGARDING THEIR KNOWLEDGE OF AND THE IMPORTANCE OF PREPARATION FOR SPECIFIC ELEMENTS RELATING TO SPECIAL EDUCATION, BRYAN WARNICK, HALLE RANDLES, EDUCATION PSYCHOLOGY AND PHILOSOPHY
Type of Review: Request for Exempt Determination

Dear Dr. Warnick,

The Office of Responsible Research Practices has determined the above referenced protocol exempt from IRB review.

Date of Exempt Determination: 11/16/2010
Qualifying Exemption Category: 2

Please note the following:

- Only OSU employees and students who have completed CITI training and are named on the signature page of the application are approved as OSU Investigators in conducting this study.
- No changes may be made in exempt research (e.g., personnel, recruitment procedures, advertisements, instruments, etc.). If changes are need, a new application must be submitted.
- Per university requirements, all research-related records (including signed consent forms) must be retained and available for audit for a period of at least three years after the research has ended.
- It is the responsibility of the Investigator to promptly report events that may represent unanticipated problems involving risks to subjects or others.

This determination is issued under The Ohio State University’s OHRP Federalwide Assurance #00006378. All forms and procedures can be found on the ORRP website – www.orrp.osu.edu. Please feel free to contact the ORRP staff contact listed below with any questions or concerns.

Cheri Pettay, MA, Certified IRB Professional
Senior Protocol Analyst—Exempt Research
Office of Responsible Research Practices
Ohio State University
1960 Kenny Road
Columbus, OH 43210
phone: 614.688.0389
Appendix C: Contact Letter for Face Validity
November 19, 2010

Dear _____:

I am currently involved in a research study for my dissertation at Ohio State University. The purpose of the study is to describe the perceptions of principals in Ohio regarding their knowledge of specific elements relating to special education. Additionally, they will distinguish which elements are important to their effectiveness as a principal.

Even though participation in this project is completely optional, I hope you will be willing to take a few moments to be involved. By returning your completed survey questionnaire to me, it is understood that you are giving your consent as a willing participant in my research study. The duration of your participation in this study is limited to the time required to complete the survey questionnaire, which should be approximately 15 minutes.

I have constructed a survey questionnaire of 38 items that I intend to administer to Ohio principals in schools which include at least grades K-3. I would like to know if you, as a professional educator, would review the enclosed survey questionnaire for face validity and return it to me with your comments.

For this type of validity check, I require feedback on appearance, user friendliness, and ease of reading. Above all, I would like to know if, in your opinion, the survey questionnaire seems to measure what it intends to measure according to the information in the opening paragraph above and the title on the cover of the questionnaire booklet.

Included in the packet of materials is a comment form that you may use to guide your evaluation of the questionnaire. Please feel free to write comments on the form and/or the survey questionnaire as you prefer.

For your convenience, I have enclosed a pre-addressed, stamped envelope in which you may return the survey questionnaire and/or the comment form with your responses. If you have any questions about the materials I have enclosed, I can be reached at either hrandles@muskingum.edu or 740-819-3193.

Your feedback is greatly appreciated. I look forward to hearing from you soon.

Sincerely,

Halle Schoener Randles, M.Ed., M.A.
Muskingum University
11A Montgomery Hall
New Concord, Ohio 43762

P.S. For questions about your rights as a participant in this study or to discuss other study-related concerns or complaints with someone who is not part of the research team, you may contact Ms. Sandra Meadows in the Office of Responsible Research Practices at 1-800-678-6251.
Appendix D: Evaluation Form for Face Validity
A Survey of the Principal Perceptions Regarding the Importance of Preparation for Special Education

Face Validity Check Comment Form

# _____

Please look over the enclosed survey questionnaire and answer the following six questions with your thoughts about and reactions to its appearance, appropriateness, and suitability.

Use as much space as you require for your comments, including extra pages as needed. You may also wish to write comments directly on the survey questionnaire.

For the sake of timeliness, comments returned via e-mail are greatly appreciated!
hrandles@muskingum.edu

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<th>YES or NO</th>
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<tbody>
<tr>
<td>1.</td>
<td>In your opinion, would the general appearance of the instrument (survey questionnaire) appeal to respondents?</td>
<td>(circle one)</td>
</tr>
<tr>
<td></td>
<td>Comments:</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>In your opinion, would the instrument look valid to respondents?</td>
<td>(circle one)</td>
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<tr>
<td></td>
<td>Comments:</td>
<td></td>
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<tr>
<td>3.</td>
<td>In your opinion, does this seem like a reasonable way to acquire the information the researcher seeks?</td>
<td>(circle one)</td>
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<tr>
<td></td>
<td>Comments:</td>
<td></td>
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</tbody>
</table>
4. In your opinion, does the instrument seem to measure what is intended? | YES or NO (circle one)
---
Comments:

5. In your opinion, do the instrument’s items seem relevant construct of special education? | YES or NO (circle one)
---
Comments:

6. In your opinion, does the instrument seem to measure what is important about the construct of special education? | YES or NO (circle one)
---
Comments:

**ADDITIONAL COMMENTS, REACTIONS, & REFLECTIONS**

Please use the space below to write any additional comments that you have about the instrument.
Appendix E: Contact Letter for Panel of Experts in Special Education
November 19, 2010

Dear _____:

I am currently involved in a research study for my dissertation at Ohio State University. The purpose of this study is to describe the perceptions of principals in Ohio regarding their knowledge of specific elements relating to special education. Additionally, they will distinguish which elements are important to their effectiveness as a principal. Analysis of this information will allow for us to identify the need of preparation for elements of special education. Finally, the relationship between the knowledge of elementary principals to school demographics, experience, and preparation for special education will be described.

Even though participation in this project is completely optional, I hope you will be willing to take a few moments to be involved. By returning your completed survey questionnaire to me, it is understood that you are giving your consent as a willing participant in my research study. The duration of your participation in this study is limited to the time required to complete the survey questionnaire, which should be approximately 15 minutes.

I have constructed a survey questionnaire of 38 items that I intend to administer to Ohio principals in schools which include at least grades K-3. I would like to know if you, as a critical and analytical reader, would review the enclosed survey questionnaire as part of my field test and then return it to me with your comments.

For the field test, I require feedback on the instrument's clarity, accuracy, suitability, and overall structure. Above all, I would like to know if, in your opinion, the survey questionnaire seems to measure what it intends to measure according to a) the information in the opening paragraph above, and b) the title on the cover of the questionnaire booklet.

Included in the packet of materials is a comment form that you may use to guide your evaluation of the questionnaire. Please feel free to write comments on the form and/or the survey questionnaire as you prefer.

For your convenience, I have enclosed a pre-addressed, stamped envelope in which you may return the survey questionnaire and/or the comment form with your responses. If you have any questions about the materials I have enclosed, I can be reached at either hrandles@muskingum.edu or 740-819-3193.

Your feedback is greatly appreciated. I look forward to hearing from you soon.

Sincerely,

Halle Schoener Randles, M.Ed., M.A.
Muskingum University
11A Montgomery Hall
New Concord, Ohio 43762

P.S. For questions about your rights as a participant in this study or to discuss other study-related concerns or complaints with someone who is not part of the research team, you may contact Ms. Sandra Meadows in the Office of Responsible Research Practices at 1-800-678-6251.
Appendix F: Contact Letter for Panel of Experts (Principals)
November 29, 2010

Dear ______:

I am currently involved in a research study for my dissertation at Ohio State University. The purpose of this study is to describe the perceptions of Ohio principals in schools which include at least grades K-3 regarding their knowledge of specific elements relating to special education. Additionally, they will distinguish which elements are important to their effectiveness as a principal. Analysis of this information will allow us to identify the need of preparation for elements of special education. Finally, the relationship between the knowledge of elementary principals to school demographics, experience, and preparation for special education will be described.

Even though participation in this project is completely optional, I hope you will be willing to take a few moments to be involved. By returning your completed survey questionnaire to me, it is understood that you are giving your consent as a willing participant in my research study. The duration of your participation in this study is limited to the time required to complete the survey questionnaire, which should be approximately 15 minutes. I have constructed a survey questionnaire of 38 total items that I intend to administer to Ohio principals in schools which include at least grades K-3. I would like to know if you, as a critical and analytical reader, would review the enclosed survey questionnaire as part of my field test and then return it to me with your comments.

For the field test, I require feedback on the instrument's clarity, accuracy, suitability, and its overall structure. Above all, I would like to know if, in your opinion, the survey questionnaire seems to measure what it intends to measure according to a) the information in the opening paragraph above, and b) the title on the cover of the questionnaire booklet.

Included in the packet of materials is a comment form that you may use to guide your evaluation of the questionnaire. Please feel free to write comments on the form and/or the survey questionnaire as you prefer.

For your convenience, I have enclosed a pre-addressed, stamped envelope in which you may return the survey questionnaire and/or the comment form with your responses. If you have any questions about the materials I have enclosed, I can be reached at either hrandles@muskingum.edu or 740-819-3193. It would be beneficial to me if you could return this no later than Monday, December 6.

Your feedback is greatly appreciated. I look forward to hearing from you soon.

Sincerely,

Halle Schoener Randles, M.Ed., M.A.
Muskingum University
11A Montgomery Hall
New Concord, Ohio 43762

P.S. For questions about your rights as a participant in this study or to discuss other study-related concerns or complaints with someone who is not part of the research team, you may contact Ms. Sandra Meadows in the Office of Responsible Research Practices at 1-800-678-6251.
Appendix G: Evaluation Form for Panel of Experts
A Survey of the Principal Perceptions Regarding the Importance of Preparation for Special Education

Panel of Experts Comment Form

Please look over the enclosed survey questionnaire and answer the following six questions with your thoughts about and reactions to its appearance, appropriateness, and suitability.

Use as much space as you require for your comments, including extra pages as needed. You may also wish to write comments directly on the survey questionnaire.

For the sake of timeliness, comments returned via e-mail are greatly appreciated!
hrandles@muskingum.edu

<table>
<thead>
<tr>
<th></th>
<th>YES or NO</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. In your opinion, are all sections of the survey questionnaire clear? If not, please identify the sections that are unclear as well as the causes of confusion in each.</td>
<td>(circle one)</td>
<td>Comments:</td>
</tr>
<tr>
<td>2. In your opinion, can the structure of the survey questionnaire be improved? If so, please describe how.</td>
<td>(circle one)</td>
<td>Comments:</td>
</tr>
<tr>
<td>3. In your opinion, does the instrument (survey questionnaire) seem suitable for use with principals? How might its suitability for the intended audience be improved?</td>
<td>(circle one)</td>
<td>Comments:</td>
</tr>
</tbody>
</table>
4. In your opinion, does the instrument seem inclusive of the knowledge and skills comprising special education?  
YES or NO (circle one)  
Comments:

5. Do you believe that the instrument is constructed in a way that will allow the researcher to identify clearly what knowledge principals have relating to special education? If not, how can the instrument’s structure be improved?  
YES or NO (circle one)  
Comments:

6. Do you believe that the instrument is constructed in a way that will allow the researcher to identify clearly what principals believe is important to their preparation relating to special education? If not, how can the instrument’s structure be improved?  
YES or NO (circle one)  
Comments:

7. Do you believe that the survey questionnaire is biased in any way? If so, please identify how it is biased and where the biased statements appear.  
YES or NO (circle one)  
Comments:

ADDITIONAL COMMENTS, REACTIONS, & REFLECTIONS

Please use the space below to write any additional comments that you have about the instrument.
Appendix H: Office of Responsible Research Practices Exemption
January 19, 2011

Protocol Number: 2010E0790
Protocol Title: PERCEPTIONS OF OHIO PRINCIPALS IN SCHOOLS WHICH INCLUDE AT LEAST GRADES K-3 REGARDING THEIR KNOWLEDGE OF AND THE IMPORTANCE OF PREPARATION FOR SPECIFIC ELEMENTS RELATING TO SPECIAL EDUCATION 2, BRYAN WARNICK, HALLE RANDLES, EDUCATIONAL PSYCHOLOGY AND PHILOSOPHY
Type of Review: Request for Exempt Determination

Dear Dr. Warnick,
The Office of Responsible Research Practices has determined the above referenced protocol exempt from IRB review.

Date of Exempt Determination: 12/29/2010
Qualifying Exemption Category: 2

Please note the following:

• Only OSU employees and students who have completed CITI training and are named on the signature page of the application are approved as OSU Investigators in conducting this study.

• No changes may be made in exempt research (e.g., personnel, recruitment procedures, advertisements, instruments, etc.). If changes are need, a new application must be submitted.

• Per university requirements, all research-related records (including signed consent forms) must be retained and available for audit for a period of at least three years after the research has ended.

• It is the responsibility of the Investigator to promptly report events that may represent unanticipated problems involving risks to subjects or others.

This determination is issued under The Ohio State University’s OHRP Federalwide Assurance #00006378. All forms and procedures can be found on the ORRP website – www.orrp.osu.edu. Please feel free to contact the ORRP staff contact listed below with any questions or concerns.

Cheri Pettey, MA, Certified IRB Professional
Senior Protocol Analyst—Exempt Research
Office of Responsible Research Practices
Ohio State University
1960 Kenny Road
Columbus, OH 43210
phone: 614.688.0389
Appendix I: Cover Letter for Pilot Test
January 10, 2011

Dear Colleague:

As a former principal I know how challenging your job is each day. I am currently dedicating my research to exploring the importance of preparation for special education to your work as a principal. Your input in this important research is vital, and I am asking you to assist me by completing the enclosed survey questionnaire regarding your knowledge of and preparation for special education.

Even though participation in this project is completely optional, I hope you will be willing to take a few moments to be involved. By returning your completed survey questionnaire to me, it is understood that you are giving your consent as a willing participant in my research study. The duration of your participation in this study is limited to the time required to complete the survey questionnaire, which should be approximately 15 minutes.

You have been randomly selected to participate in this study. Please be assured that your responses on this questionnaire will remain confidential and anonymous and that only I and my co-investigator and advisor, Dr. Bryan Warnick, will see or have access to any information that you submit. To further preserve all participants’ anonymity, I ask that you refrain from leaving any identifying information, such as your name, address, telephone or district number and/or any other identifying marks on your survey.

If you are willing to help me with this important study, please find the survey questionnaire, a pre-addressed, stamped envelope to use when returning the survey to me, and a pre-addressed, stamped postcard so you can let me know that you have completed and returned your survey without compromising your anonymity. Please make sure you mail the postcard separately from and after you have completed the survey questionnaire. I would appreciate it if you would complete and return it in the self-addressed stamped envelope by Tuesday, January 18, 2011 so that your important insight is included. A cartoon has been included in appreciation of you giving of your valuable time.

If you have any questions please feel free to contact me. Again, thank you for participating in this research.

Sincerely,

Halle Schoener Randles
hrandles@muskingum.edu
740.826.8268

P.S. For questions about your rights as a participant in this study or to discuss other study-related concerns or complaints with someone who is not part of the research team, you may contact Ms. Sandra Meadows in the Office of Responsible Research Practices at 1-800-678-6251.
Appendix J: Confirmation Postcard for Pilot Study Participants
The survey has been completed and returned.

# ______
Appendix K: Non-Response Email Script for Pilot Study Participants
Good morning!

On January 10, 2011, I sent a packet asking you to participate in a research study on THE PREPARATION OF PRINCIPALS FOR SPECIAL EDUCATION.

As of today, I have not yet heard from you. I have sent this reminder to let you know that there is still time to participate in this study & to share your ideas. Please don’t miss out on your chance to contribute to this important research study. Your input is critical!

Sincerely,
Halle Schoener Randles
hrandles@muskingum.edu
Appendix L: Cover Letter to Non-Respondents of Pilot Test
January 25, 2011

Dear Colleague:

As a former principal I know how challenging your job is each day. I am currently dedicating my research to exploring the importance of preparation for special education to your work as a principal. Your input in this important research is vital, and I am asking you to assist me by completing the enclosed survey questionnaire regarding your knowledge of and preparation for special education.

Even though participation in this project is completely optional, I hope you will be willing to take a few moments to be involved. By returning your completed survey questionnaire to me, it is understood that you are giving your consent as a willing participant in my research study. The duration of your participation in this study is limited to the time required to complete the survey questionnaire, which should be approximately 15 minutes.

You have been randomly selected to participate in this study. Please be assured that your responses on this questionnaire will remain confidential and anonymous and that only I and my co-investigator and advisor, Dr. Bryan Warnick, will see or have access to any information that you submit. To further preserve all participants’ anonymity, I ask that you refrain from leaving any identifying information, such as your name, address, telephone or district number and/or any other identifying marks on your survey.

If you are willing to help me with this important study, please find the survey questionnaire, a pre-addressed, stamped envelope to use when returning the survey to me, and a pre-addressed, stamped postcard so you can let me know that you have completed and returned your survey without compromising your anonymity. Please make sure you mail the postcard separately from and after you have completed the survey questionnaire. I would appreciate it if you would complete and return it in the self-addressed stamped envelope by Monday, January 30 so that your important insight is included. A piece of candy has been included in appreciation of you giving of your valuable time.

If you have any questions please feel free to contact me. Again, thank you for participating in this research.

Sincerely,

Halle Schoener Randles
hrandles@muskingum.edu
740.826.8268

P.S. For questions about your rights as a participant in this study or to discuss other study-related concerns or complaints with someone who is not part of the research team, you may contact Ms. Sandra Meadows in the Office of Responsible Research Practices at 1-800-678-6251.
Appendix M: Office of Responsible Research Practices Exemption
February 7, 2011

<table>
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<tr>
<th>Protocol Number:</th>
<th>2011E0073</th>
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<td>Protocol Title:</td>
<td>PERCEPTIONS OF OHIO PRINCIPALS IN SCHOOLS WHICH INCLUDE AT LEAST GRADES K-3 REGARDING THEIR KNOWLEDGE OF AND THE IMPORTANCE OF PREPARATION FOR SPECIFIC ELEMENTS RELATING TO SPECIAL EDUCATION 2, BRYAN WARNICK, HALLE RANDLE, EDUCATIONAL PSYCHOLOGY AND PHILOSOPHY</td>
</tr>
</tbody>
</table>

Type of Review: Request for Exempt Determination

Dear Dr. Warnick,

The Office of Responsible Research Practices has determined the above referenced protocol exempt from IRB review.

Date of Exempt Determination: 12/29/2010
Qualifying Exemption Category: 2

Please note the following:

• Only OSU employees and students who have completed CITI training and are named on the signature page of the application are approved as OSU Investigators in conducting this study.

• No changes may be made in exempt research (e.g., personnel, recruitment procedures, advertisements, instruments, etc.). If changes are needed, a new application must be submitted.

• Per university requirements, all research-related records (including signed consent forms) must be retained and available for audit for a period of at least three years after the research has ended.

• It is the responsibility of the Investigator to promptly report events that may represent unanticipated problems involving risks to subjects or others.

This determination is issued under The Ohio State University’s OHRP Federalwide Assurance #00006378. All forms and procedures can be found on the ORRP website – www.orrp.osu.edu. Please feel free to contact the ORRP staff contact listed below with any questions or concerns.

Cheri Pettey, MA, Certified IRB Professional
Senior Protocol Analyst—Exempt Research
Office of Responsible Research Practices
Ohio State University
1960 Kenny Road
Columbus, OH 43210
phone: 614.688.0389
Appendix N: Introductory Postcard to Research Study Participants
Dear (name of participant):

As a former principal I know how challenging your job is each day. I am currently dedicating my research to identifying your needs as a principal, specifically in special education.

In one week I will be mailing you a packet which includes a questionnaire. I am only focusing on building leaders in Ohio, so your responses will represent many principals in the state. I would appreciate it if you would complete and return it so that your important insight is included.

Feel free to contact me with any questions.

Sincerely,

(signature)
hrandles@muskingum.edu
Appendix O: Cover Letter to Research Study Participants
Friday, February 18, 2011

Dear Colleague:

As a former principal I know how challenging your job is each day. I am currently dedicating my research to exploring the importance of preparation for special education to your work as a principal. Your input in this important research is vital, and I am asking you to assist me by completing the enclosed survey questionnaire regarding your knowledge of and preparation for special education.

Even though participation in this project is completely optional, I hope you will be willing to take a few moments to be involved. By returning your completed survey questionnaire to me, it is understood that you are giving your consent as a willing participant in my research study. The duration of your participation in this study is limited to the time required to complete the survey questionnaire, which should be approximately 15 minutes.

You have been randomly selected to participate in this study. Please be assured that your responses on this questionnaire will remain confidential and anonymous and that only I and my co-investigator and advisor, Dr. Bryan Warnick, will see or have access to any information that you submit. To further preserve all participants’ anonymity, I ask that you refrain from leaving any identifying information, such as your name, address, telephone or district number and/or any other identifying marks on your survey.

If you are willing to help me with this important study, please find the survey questionnaire, a pre-addressed, stamped envelope to use when returning the survey to me, and a pre-addressed, stamped postcard so you can let me know that you have completed and returned your survey without compromising your anonymity. Please make sure you mail the postcard separately from and after you have completed the survey questionnaire. I would appreciate it if you would complete and return it in the self-addressed stamped envelope by Friday, February 25, 2011 so that your important insight is included. A copy of a cartoon has been included in appreciation of you giving of your valuable time.

If you have any questions please feel free to contact me. Again, thank you for participating in this research.
Sincerely,

Halle Schoener Randles
hrandles@muskingum.edu
740.826.8268

P.S. For questions about your rights as a participant in this study or to discuss other study-related concerns or complaints with someone who is not part of the research team, you may contact Ms. Sandra Meadows in the Office of Responsible Research Practices at 1-800-678-6251.
Appendix P: Confirmation Postcard for Research Study Participants
The survey has been completed and returned.

# _______
Appendix Q: Non-Response Email Script for Research Study Participants
Good morning!

On Friday, February 18, 2011 a Muskingum University envelope containing a questionnaire was mailed requesting your assistance by participating in a research study on THE PREPARATION OF PRINCIPALS FOR SPECIAL EDUCATION.

This is a friendly reminder that as of today, I have not yet received your response. As a former principal I know how busy each day is, but there is still time to participate in this study to share your ideas. Your input is critical!

Thanks so much!

Sincerely,

Halle Schoener Randles
hrandles@muskingum.edu
Appendix R: Cover Letter to Non-Respondents of Research Study
Dear Colleague:

As a former principal I know how challenging your job is each day. I am currently dedicating my research to exploring the importance of preparation for special education to your work as a principal. Your input in this important research is vital, and I am asking you to assist me by completing the enclosed survey questionnaire regarding your knowledge of and preparation for special education.

Even though participation in this project is completely optional, I hope you will be willing to take a few moments to be involved. By returning your completed survey questionnaire to me, it is understood that you are giving your consent as a willing participant in my research study. The duration of your participation in this study is limited to the time required to complete the survey questionnaire, which should be approximately 15 minutes.

You have been randomly selected to participate in this study. Please be assured that your responses on this questionnaire will remain confidential and anonymous and that only I and my co-investigator and advisor, Dr. Bryan Warnick, will see or have access to any information that you submit. To further preserve all participants’ anonymity, I ask that you refrain from leaving any identifying information, such as your name, address, telephone or district number and/or any other identifying marks on your survey.

If you are willing to help me with this important study, please find the survey questionnaire, a pre-addressed, stamped envelope to use when returning the survey to me, and a pre-addressed, stamped postcard so you can let me know that you have completed and returned your survey without compromising your anonymity. Please make sure you mail the postcard separately from and after you have completed the survey questionnaire. I would appreciate it if you would complete and return it in the self-addressed stamped envelope by Friday, March 18, 2011 so that your important insight is included. A piece of candy has been included in appreciation of you giving of your valuable time.

If you have any questions please feel free to contact me. Again, thank you for participating in this research.

Sincerely,

Halle Schoener Randles
hrandles@muskingum.edu
740.826.8268

P.S. For questions about your rights as a participant in this study or to discuss other study-related concerns or complaints with someone who is not part of the research team, you may contact Ms. Sandra Meadows in the Office of Responsible Research Practices at 1-800-678-6251.
Appendix S: Second Non-Response Email Script for Research Study Participants
Good morning!

On (date) a packet containing a questionnaire was mailed requesting your assistance by participating in a research study on THE PREPARATION OF PRINCIPALS FOR SPECIAL EDUCATION.

This is a friendly reminder that as of today, I have not yet received your response. As a former principal I know how busy each day is, but your input is critical. Your participation will be much appreciated.

Sincerely,
Halle Schoener Randles
hrandles@muskingum.edu