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THE UNIVERSITY OF OKLAHOMA

GRADUATE COLLEGE

PERCEPTIONS OF THE KNOWLEDGE AND SKILLS NECESSARY FOR ELEMENTARY PRINCIPALS TO IMPLEMENT INCLUSIVE SPECIAL EDUCATION PROGRAMS

A Dissertation

SUBMITTED TO THE GRADUATE FACULTY

in partial fulfillment of the requirements for

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By

GAYLE C. HARLIN-FISCHER

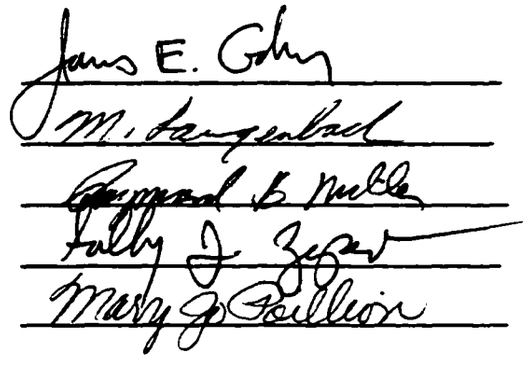
Norman, Oklahoma

1998

PERCEPTIONS OF
THE KNOWLEDGE AND SKILLS NECESSARY
FOR ELEMENTARY PRINCIPALS TO IMPLEMENT
INCLUSIVE SPECIAL EDUCATION PROGRAMS

A Dissertation APPROVED FOR THE
DEPARTMENT OF EDUCATIONAL PSYCHOLOGY

BY



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DEDICATION

This dissertation is dedicated to my husband, Terry, for his constant support, understanding, and encouragement; and to my son Jesse, and my daughter, Claire, as an inspiration to follow their dreams and be persistent in their efforts to fulfill them.

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ABSTRACT

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The formal preparation of principals usually emphasizes knowledge and skills related to problem solving, judgment, organizational ability, leadership, sensitivity, stress tolerance, and communication (National Policy Board for Educational Administration, 1993). Unfortunately, issues related to special education are not specified within these standards and, therefore, not generally encountered in course work and experiences provided in general administrator preparation programs. The purpose of this study was threefold. One was to determine the skills and knowledge elementary principals, general education teachers, and special education teachers perceive necessary for principals to implement effective special education programs within general education settings. The second purpose was to investigate what differences, if any, exist between principals', general education teachers' and special education teachers' perceptions of the skills and knowledge necessary for principals to implement these programs. In addition, this study explored the perceptions of attitudes and behaviors which support inclusive programs for students with disabilities as viewed by principals, general education teachers, and special education teachers.

Data for this study were collected from two questionnaires mailed to a stratified random sampling of elementary principals, general education teachers and special education teachers throughout Oklahoma. Several procedures were utilized to determine the reliability and validity of the instruments. The compiled data were then statistically analyzed

quantitatively and reported through the use of descriptive and exploratory statictics. Qualitative questions were analyzed uniformly using appropriate qualitative methodology.

Twenty knowledge and skills items were identified as clearly necessary for principals to implement inclusive special education programs in their schools by all three educator groups. Although principals and teachers generally agreed on knowledge and skills necessary for principals, disagreement came from special education teachers on items relating to assessment; screening, referral, and classification; and best practice in teaching and learning. Responses from this study also indicated conflicting perceptions regarding evidence that targeted schools provided educational services to students with disabilities in an age-appropriate manner or that instruction utilized methods and techniques consistent with inclusive special education practices.

CHAPTER I

Introduction

Background

More than twenty years have passed since the enactment of Public Law 94-142 in 1975. Since that time, the literature in general and special education has witnessed widespread documentation of the crucial role principals play regarding the success of programs for children with disabilities at the building level. Research on principals' knowledge of and attitudes toward the implementation of effective inclusive educational programs for children with disabilities has consistently reported the inadequacy of general administrators' preparation for their roles as special education leaders (Davis & McCaul, 1987; DeClue, 1990; Hyatt, 1987; Lindsey, 1986; Valesky & Hirth, 1992; Weinstein, 1989). Could this be attributed, in part, to the fact that neither general nor special education specifically address skills and knowledge necessary for aspiring principals to effectively implement special education programs within their schools? Moreover, although regular and special education have undergone much reform over the past two decades, little change is evidenced in the content and delivery of principal preparation programs throughout this time period (Stile, Abernathy & Pettibone, 1986; Stile & Pettibone, 1980; Valesky & Hirth, 1992).

The passage of special education legislation, which emphasizes that schools provide an education to students with disabilities in the least restrictive environment possible, has caused building principals to assume many roles as special education leaders that were once the responsibility of the special education administrator (Anderson & Decker, 1993; Brennan & Brennan, 1988; Burrello, Schrup & Barnett, 1992; Lashley, 1992; Rossow, 1990).

The attitude and willingness of building level administrators

(principals) to serve children with disabilities are vital to the effectiveness of special education programs within general education settings (Anderson & Decker, 1993; Brennan & Brennan, 1988; Rodriguez, 1994; Rossow, 1990; Van Horn, Burrello & DeClue, 1992). Authors in general and special education (Edmonds, 1989; Sweeney, 1982; Van Horn, Burrello & DeClue, 1992) have identified several issues regarding principals' roles in effective schools, which support the concept that principals must be more adequately prepared in all areas of instruction, including the implementation of special education programs.

The Principal as an Effective School Leader

Effectiveness in the public schools has been a topic of emphasis since the early 1980s (Murphy, 1990). One of the most important considerations in this movement was the role of principals as instructional leaders. The characteristics of effective schools as stated by Sweeney (1982) and Edmonds (1989) focused on the principals' (1) leadership and attention to the quality of instruction, (2) pervasive and broadly understood instructional vision, (3) maintenance of an orderly, safe climate conducive to teaching and learning, (4) behaviors which convey the expectation that all students can achieve, and (5) use of clear instructional objectives for monitoring and assessing the performance of students as the basis for program evaluation. The development of positive attitudes toward all aspects of the educational process are also a prerequisite to principals' effectiveness as instructional leaders (Edmonds, 1989; Sweeney, 1982). Principals are viewed as important figures in influencing teachers' attitudes and developing a positive school climate (Anderson & Decker, 1993; Van Horn, Burrello & DeClue, 1992).

Reform movements in special education have also increased the principals' responsibility to all students. Advocates of effective schools in the

field of special education (Van Horn, Burrello, DeClue, 1992; Will, 1986) have suggested that educational change start at the building level, led by principals as change agents. This is particularly important given the reform in special education law and the movement toward inclusive practices, which pose new challenges for principals to provide effective special education programs.

The Effect of Special Education Reform on Principals

The 1970s witnessed the beginning of demands for the rights of children with disabilities. The determination of individuals and advocacy groups to achieve civil and educational rights for children and youth with disabilities led to the passage of the Education for All Handicapped Children Act of 1975 (Public Law 94-142). The Individuals with Disabilities Education Act (IDEA, Public Law 101-476), was passed in 1990 and reauthorized in 1997. This legislation prompted a more critical and structured look at the necessity to provide a free, appropriate education in the least restrictive environment, and stimulated a movement toward the inclusion of students with disabilities in public school systems throughout the country (Rogers, 1993; Simpson & Myles, 1990). Since the passage of Public Law 94-142 in 1975, numerous cases regarding educational programs and services for children with disabilities have been heard in our nation's courts. Each case has altered the future of special education, the rights of students with disabilities, and the responsibilities of all personnel who work with educational programs (Burrello, Schrup & Barnett, 1992; Data Research, 1993). Thus, the passage of legislation in special education and the movement toward inclusion have altered the role of the building level administrator in providing special education services within the general education setting.

New Roles for Principals as Special Education Leaders

Brennan and Brennan (1988) have argued that principals are the most

visible school administrators to parents and the ultimate authority to faculty and students. Principals serve as interpreters and implementors of district policy, and, as such, are responsible for the establishment and maintenance of the overall educational climate of the school. Moreover, principals are not only responsible for general education programs, but are also increasingly asked to serve as instructional leaders for special education programs within their schools (Leibfried, 1984; Will, 1986). In a recent paper (Burrello, Lashley, & Van Dyke, 1996), authors stated that:

> Administrators of district level programs will be asked to relinquish authority, while school principals will be asked to assume more responsibility. District and school administrators will be asked to look at their roles and programs to see how they can change practice to produce equitable opportunity and excellent outcomes for all students (p. 29).

Although federal guidelines do not specifically designate any one person as coordinator of the placement process for students in need of special assistance, the principal has been viewed as the logical choice (Anderson & Decker, 1993). Principals are, therefore, expected to deal with various legal and ethical issues surrounding the implementation of IDEA, such as providing services to students in the least restrictive environment (Gargiulo, 1990, Salisbury & Smith, 1991). In addition, school improvement programs such as the inclusion of students with disabilities into the general classroom are dependent upon the knowledge and vision of principals for these programs to be successful (DeClue, 1990; Lashley, 1992; Rogers, 1993). DeClue (1990) concluded that principals play important roles in the implementation of inclusive programs as symbolic leaders. This belief is consistent with the philosophies of Sergiovanni (1992), that symbolic behaviors are key functions

of principals, and Rude and Rubadeau (1992), that inclusion is fostered by principals who model total school responsibility for all students.

Furthermore, principals are obligated to implement and monitor the prereferral and referral guidelines to ensure the student placement process has direction and is consistent with the law (Cochrane & Westling, 1977; Lashley, 1992; Sage & Burrello, 1994). They are essential to the successful collaboration of special education teams by allowing time for staff to schedule team meetings and providing training regarding the team process (Van Horn, Burrello, & DeClue, 1992; Whitten, 1996). As organizers and managers of special education programs, principals must provide necessary resources for students and staff and act as advocates for children with disabilities (Anderson & Decker, 1993; Leibfried, 1984; Sage & Burrello, 1994). Another demand of principals' new roles requires they provide staff development regarding the modification and adaption of general education curricula to meet the needs of students with varying abilities. In addition, principals are responsible for classroom observations and evaluations of special education staff (Burrello, Schrup and Barnett, 1988; Rude & Rubadeau, 1992).

With the reform of special education and the emergence of inclusive practices within schools, the amount of time principals spend regarding the daily management of students with disabilities has steadily increased. Raske (1979) found that principals devoted approximately 14% of their time to the performance of special education duties. However, data reported by Harlin-Fischer, et al. (1994, in progress) indicated that 40% of the administrator respondents believe they spend a greater amount of time, proportionately, on the problems of students with disabilities than with their nondisabled population. As increasing numbers of students with disabilities are integrated into general school settings and principals' leadership roles are

expanded, their knowledge base regarding students with disabilities is an important factor to be considered (Van Horn, Burrello, & DeClue, 1992).

Principals' Training and Knowledge in Special Education

Several authors have indicated areas in which principals must be knowledgeable. Cochrane and Westling (1977) and Rude and Rubadeau (1992) suggested they be able to recognize the characteristics of children with disabilities in order to match learning styles with appropriate teaching strategies. Rodriguez (1994) believed principals should have the knowledge and skills necessary to select, foster, and evaluate a staff who practice a philosophy of inclusion consistent with federal and state law. In addition, principals must be able to utilize community resources and other means of support necessary for students with disabilities and for the general education staff (Burrello, Schrup, & Barnett, 1992).

However, some studies (Cline, 1981; Davis & McCaul, 1987; DeClue, 1990; Hyatt, 1987; Lindsey, 1986; Stile, Abernathy, & Pettibone, 1986; Stile & Pettibone, 1980; Valesky & Hirth, 1992; Weinstein, 1989) found that general education principals were often inadequately prepared to administer programs for students with disabilities within their schools. Valesky and Hirth (1992) discovered that for each principal endorsement offered, the most common method of acquiring knowledge of special education was through only a single general or introductory university course. Principals' knowledge about special education programs and students with disabilities has generally occurred either on the job or through their own experiences and pursuit of information (Van Horn, Burrello, & DeClue, 1992). One might argue that inadequate preparation creates potential problems for principals in implementing special education programs within general education settings. The effect of principals' lack of competence in special education can be

observed in a variety of contexts.

Problems of Inadequate Knowledge in Special Education

Principals are often viewed as more reactive than proactive in their delivery of special education services due to a lack of knowledge regarding disabling conditions and placement options (Van Horn, Burrello, & DeClue, 1992). Although principals are responsible for the day to day effect that special education legislation has on general education programs, they generally rely on central office special education staff for support and consultation, rather than being directly involved in building level special education decisions (Sage & Burrello, 1994; Weinstein, 1989). Inappropriate ethical or legal decisions concerning the quality of services rendered to children with disabilities could result when principals do not have adequate knowledge of special education policy and procedure, and are not involved in the process of referral, monitoring, and implementation of programs (Anderson & Decker, 1993; Gargiulo, 1990; Rossow, 1990; Sage & Burrello, 1994).

Lack of knowledge about special education also causes principals to be hesitant in initiating new and innovative programs, such as inclusion, within their buildings (Davis & McCaul, 1988; Kauffman, 1989). DeClue (1990) reports that elementary principals' beliefs and attitudes toward special education are key factors influencing their acceptance of students with disabilities and their implementation of inclusive programs.

Effect of Knowledge and Experience on Beliefs and Behaviors

Principals' attitudes toward the implementation of inclusive special education programs are formed by the whole network of thoughts and beliefs which exist in regard to students with disabilities and are further influenced by any experiences which the principal has had in relation to them (Kleine & Smith, 1990; Triandis, Adamopoulos, & Brinberg, 1971). Principals' attitudes

are critical in establishing a positive school climate that accepts students with disabilities into the general classroom (Anderson & Decker, 1993; Brennan & Brennan, 1988; DeClue, 1990; Hyatt, 1987; Rodriguez,1994; Rossow,1990). If positive attitudes are to be developed with respect to the special education process, administrators must be knowledgeable in all aspects of working with children with exceptionalities. Therefore, principals should be exposed to situations which allow them to receive skills and actual leadership experiences necessary to implement, maintain, and improve special education programs (Burrello, Schrup, & Barnett, 1992). Special education programming must be viewed not only as a concept that merely concerns principals, but as a reality to be confronted with confidence and expertise in leadership (Hyatt, 1987). These and other issues have prompted the reform of principal preparation and guide research regarding the knowledge and skills needed for principals to effectively implement special education programs.

Reform of Principal Preparation

The literature in general and special education has suggested new emphases be given through course work and clinical experiences to those areas of knowledge and skill directly related to the implementation and maintenance of special education programs at the building level (Anderson, 1991; Anderson & Decker, 1993; Burrello, Schrup, & Barnett, 1992; Hyatt, 1987; Jones, Robinette & Wells, 1994; Murphy, 1990; Sage & Burrello, 1994).

A recent collaborative reform effort of principal preparation programs by The National Associations of Elementary and Secondary School Principals has resulted in the formation of the National Commission on the Principalship (1990). The Commission published a document describing a base of knowledge and skills for principals encompassing twenty-one

performance domains (Appendix A). Although these skills include problem solving, judgment, organizational ability, leadership, sensitivity, stress tolerance, and communication, skills specifically related to special education are not addressed.

Recent reform efforts of the Council for Exceptional Children (CEC) Professional Standards and Practice Standing Committee resulted in the adoption of the CEC Common Core of Knowledge and Skills Essential for All Beginning Special Education Teachers (Swan & Sirvis, 1992). These standards, amended in 1995, and retitled The International Standards for the Preparation and Certification of Special Education Teachers (CEC, 1995), include code of ethics, an international component, and a separate core of knowledge and skills appropriate for individual categories of exceptionality (Appendix B). Two years later CEC also approved knowledge and skills requirements for entry-level special education administrators and educational diagnosticians (CEC Today, 1997). Unfortunately, these standards do not specifically address competencies for principals.

Therefore, it becomes apparent that, although an effort has been made nationally in general education to update the preparation of principals, knowledge and skills in special education have not been addressed. Likewise, although reform in special education has specified competencies necessary for teachers, special education administrators, and educational diagnosticians, it has failed to include building level administrators. Given that principals are expected to perform new roles as special education leaders, and considering the fact that research has indicated a lack of knowledge in special education causes principals to be hesitant to implement innovative programming, such as inclusion, one might hypothesize that standards from the CEC Common Core of Knowledge and Skills could provide the criteria for what principals

should know and be able to do in special education.

Statement of the Problem

The formal preparation of principals usually emphasizes knowledge and skills related to problem solving, judgment, organizational ability, leadership, sensitivity, stress tolerance, and communication (National Policy Board for Educational Administration, 1993). Unfortunately, issues related to special education are not specified within these standards and, therefore, not generally encountered in course work and experiences provided in general administrator preparation programs (Hyatt, 1987). The Council for Exceptional Children developed standards for preparing all special education teachers in 1995, and expanded on these competencies in 1997 to include the preparation needs of special education administrators and educational diagnosticians. However, a problem results from the fact that, although principals are now expected to be instructional leaders for special education programs within their schools, CEC standards are not reflected in their preparation.

There are several approaches to the preparation of elementary principals. However, as evidenced from the literature (Cline, 1981; Davis & McCaul, 1987; DeClue, 1990; Hyatt, 1987; Lindsey, 1986; Stile, Abernathy, & Pettibone, 1986; Stile & Pettibone, 1980; Valesky & Hirth, 1992; Weinstein, 1989), the current curricula are not providing the knowledge, skills, and experience necessary to adequately train principals for their roles as special education leaders. The effect of principals' lack of knowledge in special education is also evidenced by their lack of acceptance of students with disabilities and their hesitancy to implement innovative programming (DeClue, 1990). From a practical perspective, one may observe that elementary principals often avoid taking responsibility for students with

disabilities and are hesitant in initiating contemporary special education programming due to their lack of knowledge regarding special education policy and procedure. The development of specific standards which define minimum guidelines for what principals should know and be able to do in the area of special education, based on CEC's standards, could help ensure that they have an understanding of special education theory and law, as well as effective practices for educating students with disabilities.

Specifically, this study was designed to answer questions that address the following elements regarding the competencies perceived necessary for elementary principals in special education, and the perception of attitudes and behaviors supportive of inclusive programs for students with disabilities:

1. What skills and knowledge identified in standards from the CEC Common Core of Knowledge and Skills Essential for All Beginning Special Education Teachers do elementary principals believe are necessary to effectively implement special education programs?
2. What skills and knowledge identified in standards from the CEC Common Core of Knowledge and Skills Essential for All Beginning Special Education Teachers do elementary special education teachers believe are necessary for principals to effectively implement special education programs?
3. What skills and knowledge identified in standards from the CEC Common Core of Knowledge and Skills Essential for All Beginning Special Education Teachers do elementary general education teachers believe are necessary for principals to effectively implement special education programs?
4. What differences, if any, exist among the responses of elementary school principals, general education teachers, and special education

teachers regarding their perceptions of the knowledge and skills necessary for principals to effectively implement special education programs?

5. To what extent do elementary school principals, general education teachers, and special education teachers believe behaviors and attitudes which support inclusive programs for students with disabilities are evident within their schools?

Purpose of the Study

This study addresses an area of research which had not been well described within general or special education. Based on earlier work which focused on competencies for principals in special education (Burrello, Schrup & Barnett, 1992; Rude & Rubadeau, 1992), this study is relevant to the fields of special education and educational leadership because it discloses specific knowledge and skills necessary for elementary principals to provide effective special education programs within general education schools. In addition, this study expands on research exploring attitudes and behaviors which facilitate best practice implementation of special education programs (Villa, Thousand, Meyers, & Nevin, 1996). Finally, while studies similar in purpose have been conducted (Rude & Rubadeau, 1992; Villa, Thousand, Meyers, & Nevin, 1996), their findings are limited due to inadequate instrumentation or methodological procedures. Results from this study may aid in the improvement and/or development of preservice and inservice training for elementary principals and strengthen their leadership abilities in implementing best practice special education programs within general education settings.

The purpose of this study is threefold. One is to determine the skills and knowledge elementary principals, general education teachers, and

special education teachers perceive necessary for principals to implement effective special education programs within general education settings. The second purpose is to investigate what differences, if any, exist between principals', general education teachers' and special education teachers' perceptions of the skills and knowledge necessary for principals to implement these programs. In addition, this study explores the perceptions of attitudes and behaviors which support inclusive programs for students with disabilities as viewed by principals, general education teachers, and special education teachers.

Organization of the Study

This study has been organized into five chapters. The first chapter is an introduction. Chapter ll is a review of the literature related to the history and reform movements in special education programming as they relate to the knowledge and skills needed by principals in these areas. Chapter lll describes the methods and procedures used to answer the questions posed by this study. Chapter lV presents the findings and analyses of data. Chapter V includes the discussion, conclusions, limitations, and recommendations.

Summary

This chapter provided an overview of the new roles of principals as special education leaders within general education settings. It presented an argument regarding the need to explore the knowledge and skills necessary for principals in the area of special education. Furthermore, attitudes and behaviors which support effective special education programs are reported by elementary principals, teachers, and special education teachers. The following chapter provides a review of literature related to the problem of investigation.

CHAPTER II

Review of Related Literature

This chapter provides a review of literature related to the following areas: (1) the historical development of legislation regarding the least restrictive environment and placement practices (2) the reform movement to provide inclusive educational programs to students with disabilities and its effect on principals (3) principals as special education leaders (4) principals' training in special education and (5) the competencies necessary for principals to face their new roles as special education leaders.

The Least Restrictive Mandate (LRE)

Historically, students with disabilities had little or no opportunity to interact with nondisabled peers of the same age, until university professors and practitioners across the country questioned this and recognized the importance of an age-appropriate, functional curriculum (Brinker & Thorpe, 1984). Social interaction between students with and without disabilities was also viewed as critical (Sailor, 1989). The Education for All Handicapped Children Act of 1975 (Public Law 94-142) and the Individuals with Disabilities Education Act (IDEA, Public Law 101-476) in 1990 were designed to improve the quality of education for students with disabilities by providing them an education in the "least restrictive" environment possible (Simpson & Myles, 1990). Placement for all students with disabilities is regulated by the Individuals With Disabilities Act (IDEA) (P.L.101- 476). These regulations require, in part, the following:

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(b) Each public agency shall ensure...

(1) That to the maximum extent appropriate, children with disabilities, including children in public or private institutions or other care

facilities, are educated with children who are non disabled; and

(2) That special classes, separate schooling or other removal of children with disabilities from the regular education environment occurs only when the nature or severity of the disability is such that education in regular classes with the use of supplemental aids and services cannot be achieved satisfactorily.

Therefore, schools are required to make significant efforts to find the least restrictive environment (LRE) for children with disabilities. Least restrictive has been interpreted to mean that instruction be provided within general education settings to the greatest extent possible (Luzader, 1995; Rogers, 1993; Smith, 1979). The reauthorization of IDEA in 1997 expanded on LRE requirements by not only ensuring that students with disabilities receive services but that they also be furnished the supports necessary to achieve success in appropriate educational settings (CEC Today, 1997).

Challenges for Principals to Maintain the Least Restrictive Environment

The passage of special education legislation and the emphasis on the least restrictive environment have influenced the role of building principals. Principals are expected to communicate special education laws, policies, and procedures to parents, staff, advocacy organizations, the courts, social service agencies, and the community in order to effectively implement programs for students with disabilities (Cochrane & Westling, 1977; Lashley, 1992; Rude & Rubadeau, 1992; Sage & Burrello, 1994). One study by Gargiulo (1990) found that principals had concerns regarding their knowledge regarding the implementation of Public Law 94-142, which addresses serving students with disabilities in the least restrictive environment.

Principals' Concerns Regarding Knowledge of the LRE

Gargiulo (1990) investigated concerns of superintendents, special

education directors, and principals regarding fiscal, legal, staff and curriculum, and social and personal issues. Participants came from a random sampling of the 129 public school districts in Alabama, with 59 of the 60 targeted school districts responding to the survey. The instrument used, the General Concerns Inventory: Least Restrictive Environment (GCI:LRE) (Gargiulo, 1990), contained 25 items addressing specific personal, managerial, and programmatic issues relevant to the implementation of the LRE. Gargiulo discovered that the principals in his investigation showed greater concern for items relating to students' social and personal issues than did the superintendents or special education directors surveyed. This factor, he believed, combined with the fact that principals are responsible for day-to-day conflict management and acceptance issues concerning children with disabilities, indicated that principals have training needs in the area of LRE implementation.

Salisbury and Smith (1991) supported Gargiulo's findings by stating, "...professionals must continually reconcile what is most appropriate for the child with how to deliver those services in the least restrictive environment. There are no easy answers." (p. 25). Given this, it seems logical to presume that differences in terminology regarding the LRE may create difficulty for principals in determining best practice and/or placement for students with disabilities served in general education settings.

Terminology Regarding LRE and Placement Options

The Regular Education Initiative (REI), first proposed by Will (1985) and later described by Kauffman (1989) as either the merger of special and general education programs or the merger of funding of each, was probably the first important move to help clarify the LRE. In addition to the REI, several terms have been used to describe the least restrictive environment.

These include (1) mainstreaming, (2) inclusion, (3) full inclusion, and (4) supported education. Although none of these terms actually appears in federal law, all have been used to express varying beliefs about what the law means (Rogers, 1993).

Primary theories of the REI movement were that (1) students with disabilities are best served by the improvement of education for all students, (2) no student be labeled, and (3) the focus should be on excellence for all. However, Kauffman (1989) claimed that REI proposals were aimed at decreasing federal support for the education of students who were the most vulnerable and needy. He stated that "REI was a complicated set of policies and issues which demanded careful analysis" and challenged educators to "seek a more effective way of educating students with disabilities" (p. 275).

Mainstreaming generally referred to the selective placement of students with disabilities in one or more regular education classes. It required that students with disabilities "earn" the opportunity to be in regular education through their ability to work with nondisabled students (Rogers, 1993). Although proponents of mainstreaming agreed its goal was to provide optimal social and educational opportunities for children with disabilities, confusion surfaced over where these opportunities were best provided (Lindsey, 1986).

Inclusion is a more recent term which communicates a commitment that all children be included in the educational and social life of their neighborhood schools and classrooms. In inclusive schools the focus is to build a system of education structured to meet the needs of all students (Stainback, Stainback, & Jackson, 1992). This is in contrast to mainstreaming which implied a need to fit previously excluded students into already existing programs. Full inclusion is primarily used to refer to a belief that

instructional practices and technological supports must be available to accommodate all students in general education classes, regardless of the severity of their disabilities (Lipsky & Gartner, 1992).

Supported education expanded on inclusion by suggesting that students with disabilities be placed in general education according to individual needs (Hightower, Williams & Clarke, 1994). It is an option for all students based on two main theories: (a) "pull out" programs and current instructional practices are not effective (Meyers, Gelheiser & Yelich, 1991) and (b) educational and social inclusion in neighborhood schools is most appropriate for students with and without disabilities (O'Neil, 1995). The amount of time students with disabilities spend in general education in supported education environments is determined by the Individual Educational Plan (IEP) team for each student (Brown, Schwartz, Udvari-Solner, Kampschroer, Johnson, Jorgensen, & Gruenewald, 1991).

Salisbury and Smith (1991) suggested that there are both conceptual and legal explanations regarding the least restrictive environment. Therefore, it seems appropriate to conclude that principals must be cognizant of current terminology regarding the LRE in order to implement effective programs for students with disabilities within their buildings. The reauthorization of IDEA in 1997 requires that states provide more quality professional development for general and special education teachers regarding the LRE and best practice in the field of special education (CEC Today, 1997). The literature has recognized principals as key persons responsible for upgrading and maintaining appropriate educational experiences for all students within schools (Anderson & Decker, 1993; Brennan & Brennan, 1988; Rodriguez, 1994; Rossow, 1990).

Summary of the LRE and its Challenges for Principals

The passage of the Education for All Handicapped Children Act of 1975 (Public Law 94-142) and the Individuals with Disabilities Education Act (IDEA, Public Law 101-476, 1990), with its reauthorization in 1997, have improved the quality of education for students with disabilities and challenged the building principal as a special education leader. This legislation requires that students with disabilities be provided an education in the least restrictive setting possible (Burrello, Schrup & Barnett, 1992; Luzader, 1995; Rogers, 1993; Simpson & Myles, 1990; Smith, 1979). Research by Gargiulo (1990) identified concerns of principals regarding Public Law 94-142 and indicated a need for training in the area of LRE implementation. Although several terms have been used to describe the LRE, inclusion is probably most appropriate when defining the expectations CEC holds for leaders of special education programs.

The Inclusion Movement and its Influence on Principals

The passage of special education legislation, with an emphasis on LRE, has stimulated a movement toward inclusion in public school systems throughout the country. This movement further altered the role of general education principals. As organizers and managers of special education, principals were now expected to implement and maintain the instructional program, provide the necessary resources for students and staff, and be advocates for children with disabilities (Anderson & Decker, 1993; Cochrane & Westling, 1977; Lashley, 1992; Leibfried, 1984; Sage & Burrello, 1994). They were also required to provide staff development on (1) integrating the regular education curricula to meet individual student needs, (2) teaming and collaborative practices, and (4) inclusive instruction and learning strategies (Luzader, 1995; Rude & Rubadeau, 1992). The movement toward inclusion grew mainly from two concepts.

Rationale for the Inclusion Movement

One line of reasoning for the inclusion movement stemmed from the civil rights argument (Warren, 1954) that segregated education was inherently unequal and, therefore, a violation of rights of the segregated children (Kauffman, 1989). Stainback and Stainback (1992) believed that the inclusion of students with disabilities into the regular educational environment prevented the negative effects of racial segregation, such as lack of self-confidence or motivation, and promoted positive expectations for achievement. An assumption underlying the concept and practice of educational equality is that schooling success can be obtained for all students. This, however, requires incorporating effective strategies from research on practice in order to implement programs that provide for the education of all children (Wang, 1992).

Another rationale for the inclusion movement was that children served in segregated special education programs do not show the expected progress in their development of academic, social, or vocational skills. Gartner and Lipsky (1987) reviewed several programs for students with disabilities and concluded that it was imperative they spend time in the regular classroom in order to improve their achievement, self-esteem, and emotional adjustment.

Challenges for Principals in Inclusive Settings

Davis and McCaul (1988) and Kauffman (1989) suggested several factors which create challenges for building administrators and, thus, hinder inclusive efforts in public schools. One is the fact that much of the literature on inclusion is written by higher education faculty with little participation at the local level. Principals have remained uninformed and frequently ignored regarding knowledge and skills related to inclusion. They are often,

therefore, apprehensive concerning the implementation of this reform movement (Davis & McCaul, 1988; DeClue, 1990; Kauffman, 1989). In addition, differing viewpoints on inclusion create confusion for principals who are crucial to the process of change and for the climate in which meaningful change occurs (Anderson, 1993, Brennan & Brennan, 1988; First, 1988; Kauffman, 1989).

The Effect of Differing Viewpoints About Inclusion on Principals

There is a growing body of literature and research which promotes the inclusion of students with disabilities in general education classrooms (Brinker & Thorpe, 1984; Chin-Perez, Hartman, Park, Wershing & Gaylord-Ross, 1986; Gartner & Lipsky, 1987; Hunt, Farron-Davis, Beckstead, Curtis & Goetz, 1994; Maxson, Tedder, Lamb, Geisen & Marimon, 1989; Stainback & Stainback, 1984; York, Vandercook, MacDonald, Heise-Neff & Caughey, 1992). Supporters believe the current dual system of education uses elaborate and expensive assessment procedures to determine students' eligibility for special education services, rather than operate on the premise that all students have that all students have unique needs which require individualization (Gartner & Lipsky, 1987; Stainback & Stainback, 1984). They argued that emphases should be placed instead on effective instruction and training for educators who are responsible for the success of all students.

Research on the inclusion of students with disabilities has focused not only on the effect of inclusion on the students themselves, but also on their nondisabled peers. Feedback from educators and classmates on the integration of students with severe disabilities generally indicated that inclusion was positive for students and teachers alike (Brinker & Thorpe, 1984; York, Vandercook, MacDonald, Heise-Neff, & Caughey, 1992). One study (Brinker & Thorpe, 1984) found that students with disabilities in

inclusive settings not only had increased opportunities for social interaction with nondisabled peers but also experienced a more meaningful curriculum. The Brinker and Thorpe (1984) study also reported that inclusion offered nondisabled classmates an increased awareness of the differences in people and how to relate to those differences. Authors agreed that, through exposure and experience, students with disabilities in regular classrooms help change attitudes and stereotypes about disabilities (Chin-Perez, Hartman, Park, Wershing, & Gaylord-Ross, 1986; Hunt, Farron-Davis, Beckstead, Curtis & Goetz, 1994; York, Vandercook, MacDonald, Heise-Neff, & Caughey, 1992). However, despite the widespread support of inclusive programs, not everyone was enthusiastic about this particular educational reform, and that resulted in a series of articles critical of inclusive programming.

Kauffman (1989) opposed inclusion based on the concept that some children need instruction different from the mainstream and general education teachers have not received the specialized training to adequately teach these students. In a recent interview, Kauffman stated that "research is not yet available which indicates that all students can be taught effectively in regular schools" (O'Neil,1995, p. 8). He believed children are reflexively placed in general education classrooms which, he suggested, not only constitutes poor practice but is also illegal. Similarly, the Chairman of the Learning Disabilities Association of America, Justine Maloney, argued that until regular educators receive the training they need, students with disabilities will fail in regular classrooms and should, therefore, continue in alternative instructional settings with special materials. Opposition to inclusion has also come from the American Council on the Blind, the Commission on the Education of the Deaf, and the Council for Children with Behavioral Disorders (Fuchs & Fuchs, 1994).

Differing viewpoints on inclusion create difficulty for principals as change agents, essential to the overall success or failure of special education programs. Principals are key individuals responsible for the improvement and maintenance of appropriate educational programs for students with disabilities. In this endeavor, they must be knowledgeable of effective inclusive teaching and learning strategies in order to provide the leadership necessary to achieve unbiased opportunity and successful outcomes for all students (Burrello, Lashley, & Van Dyke, 1996; Luzader, 1995; Rude & Rubadeau, 1992). Several factors have been identified as instrumental to the success of inclusive programs (NCERI, 1994; Villa, Thousand, Meyers, & Nevin, 1996).

Factors Which Contribute to Successful Inclusive Programs

The National Center on Educational Restructuring and Inclusion (NCERI, 1994) conducted a national survey to identify successful inclusive education programs. The subjects of the study were local districts identified by chief state school officers in each of the fifty states of the United States as districts where inclusive activities were taking place. Identified districts were contacted and asked for information concerning policy, funding and evaluation of their programs. Although this study was limited due to a failure to report statistical data, a number of common characteristics of successful inclusive programs were suggested. The most important ingredient mentioned was a visionary leader. This leader was essential for creating positive views regarding the value of education to students with disabilities.

The importance of a visionary leader is further supported in the literature by a variety of authors. Westling (1989) and Giangreco (1992) maintained that appropriate educational policies and administrative support

are necessary to ensure the successful inclusion of children with disabilities into the schools. Leibfried (1984) suggested that building administrators, or principals, are key individuals shaping teacher attitudes and the overall school climate. In order to create an atmosphere and culture conducive to change, Rodriguez (1994) suggested that principals must articulate a vision of inclusion to parents, students, and teachers and provide the resources and training necessary for a successful transition. Giangreco (1992) supported this perception by adding that instructional practices must be compatible with the goals of an inclusion-oriented curriculum and leadership approaches should be consistent with these goals. Based on the NCERI survey (1994), another factor essential to the success of inclusive programs is building collaborative relationships among all concerned school parties. Administrative support is essential to this success by allowing time for teachers to schedule collaborative team meetings and providing inservice training regarding the team process (Van Horn, Burrello, & DeClue, 1992; Whitten, 1996).

A study by Villa, Thousand, Meyers, and Nevin (1996) surveyed teachers and principals to explore attitudes regarding the education of children of varying disabilities and determined additional factors which facilitated the implementation of exemplary inclusive practices. Thirty-two sites, from the United States and Canada, were selected for the study based on their efforts to provide heterogeneous educational programs for all children. One component of this study was to survey the entire staff at each school through the use of an instrument developed by the researchers, entitled the Heterogeneous Teacher Survey (HETS). General education teachers, special education teachers, and principals in each school were asked about their attitudes toward the implementation of educational programs for students of varying disabilities. Factor analysis was performed on the HETS survey, and

two factors were identified: (1) one pertained to the impact of heterogeneous education on students (2) the other was related to changes which occur in the organizational structure and culture of schools as a result of inclusion.

Subsequent ANOVA indicated statistically significant differences between general and special education teachers on both factors. The authors concluded that general educators who had previous experience educating students with disabilities were in significantly greater agreement with items in both factors than were general educators without such experience. There were also significant differences in general educators' agreement with factors based on their geographic location, age, and grade level of students. The extent to which general and special educators collaborated also increased significantly special educators' and principals' agreement with factor items. However, years of experience were not significantly related to beliefs of general or special education teachers for any of the factors. Although responses to items by elementary educators were more positive than secondary educators, the majority of total respondents favored inclusive school practices and supported the idea of coequal partnerships between general and special educators.

This study also explored the evidence of attitudes which support the implementation of inclusive programs for students with disabilities in general education settings as viewed by principals, general education teachers, and special education teachers. Results indicated that the implementation of successful programs is enhanced by administrative support and time to collaborate. In addition, authors of this study concluded that the actual experience of practicing inclusive education developed educators' abilities and their perception of personal competence in educating a heterogeneous classroom of children. Limitations may have existed, however, due to the

use of attitudinal surveys, rather than reports of actual behaviors, to convey evidence of best practice.

Summary of the Inclusion Movement

The passage of special education legislation is considered foremost in altering the role of the building administrator as a special education leader. The second reason principals' responsibilities increased in special education programming was the movement to include students with disabilities into the regular education environment (Rogers, 1993). This movement grew from two concepts. One was that education equality promotes success for all students (Stainback & Stainback, 1992; Wang, 1992). The other maintained that children served in segregated settings do not benefit academically, socially or emotionally (Buysee & Bailey, 1993; Gartner & Lipsky, 1987; Hunt, Farron-Davis, Beckstead, Curtis, & Goetz, 1994). Research on inclusion identified a visionary leader as essential to its successfulness (Giangreco, 1992; Leibfried, 1984; NCERI,1994; Rodriguez, 1994; Westling, 1989). Other factors identified as instrumental to the success of inclusive programs include (1) administrative support, (2) sufficiency and flexibility of time for principals and teachers, (3) the collaboration of general and special education, and (4) actual experience practicing inclusive education (Villa, Thousand, Meyers, & Nevin, 1996).

Challenges for principals to implement appropriate educational experiences for students with disabilities are compounded by conflicting viewpoints toward inclusion, the lack of knowledge regarding inclusion, and the lack of participation at the local level (Davis & McCaul, 1989; Kauffman, 1989). The role principals assume as special education leaders is crucial to the success of students with disabilities in general education settings (Anderson & Decker, 1993; Rodriguez, 1994; Van Horn, Burrello & DeClue, 1992).

Principals as Special Education Leaders

The passage of special education legislation and the inclusion movement have caused building principals to assume many roles as special education leaders that were once the responsibility of the special education administrator (Anderson & Decker, 1993; Brennan & Brennan, 1988; Burrello, Schrup & Barnett, 1992; Lashley, 1992; Rossow, 1990). These new roles include implementing and maintaining the instructional program, providing the necessary resources for students and staff, and advocating for children with disabilities (Anderson & Decker, 1993; Cochrane & Westling ,1977; Lashley, 1992; Leibfried, 1984; Sage & Burrello, 1994). The attitude and willingness of the building principal to serve children and youth with disabilities are vital to the success of special education programs (Anderson & Decker, 1993; Brennan & Brennan, 1988; Rodriguez, 1994; Rossow, 1990; Van Horn, Burrello & DeClue, 1992). Research in special education has focused on factors which influence principals' attitudes toward the integration or inclusion of students with disabilities into the regular education environment (Cline, 1981; Jamieson, 1984; Koenecke & Clark, 1986; Overline, 1977; Payne & Murray, 1974; Rogers, 1987).

Influences on Principals as Special Education Leaders

Early efforts to study factors which impacted building principals' willingness to implement special education programs concentrated on the location and/or type of building in which the students were educated (Overline, 1977; Payne & Murray, 1974) and category of exceptionality of the student (Cline, 1981; Jamieson, 1984). Payne and Murray (1974) found that elementary principals from urban communities were less likely to include students with disabilities in regular classrooms than were suburban principals. Overline's study (1977) indicated that rural principals had more

positive attitudes toward including students with disabilities in general education than did those in suburban or urban areas.

Differences in the category of exceptionality of students with disabilities has also influenced the degree of acceptance or rejection of students' inclusion into the mainstream of education. In general, students with moderate physical and cognitive impairments receive greater acceptance than those with severe disabilities (Harlin-Fischer, et al, 1994, in progress; Jamieson, 1984; Rogers,1987). Jamieson (1984) found that educators were more positive toward students categorized as learning disabled than they were toward those categorized mentally retarded or emotionally disturbed. In contrast, Cline (1981) reported that principals had more positive attitudes toward students with severe disabilities than did the special education "experts" he surveyed. However, Cline's (1981) study also found that principals did not fully understand the needs of students with disabilities.

Rogers (1987) conducted a study which examined whether significant differences existed in the attitudes of elementary, middle, and secondary educators toward serving students with disabilities. The "Mainstreaming Questionnaire" developed by Schmelkin (1981) was given to 92 educators in a large metropolitan school district and inferential statistics were used to analyze the differences in the subjects' scores. Rogers (1987) concluded that elementary level teachers and support staff were more positive in their attitude and willingness to mainstream students with disabilities into the regular educational setting than were high school or middle school educators.

Studies investigating educators' age, certification level, and/or years of experience (Rogers, 1987; Koenecke & Clark, 1986) reported conflicting findings concerning these factors' impact on the willingness of teachers and principals to integrate students with disabilities into the regular school

environment. Rogers (1987) found no significant differences in the attitudes of groups based on years of experience or certification level. Koenecke and Clark (1986), however, discovered that administrators over the age of 61 indicated a greater concern regarding the integration of students with disabilities than did their younger counterparts. Administrators with doctoral degrees were more positive toward serving students with disabilities in general education settings than were their colleagues with less formal university preparation. Research which focused on principals' knowledge and experience as factors influencing their implementation of inclusive programs for students with disabilities (Davis & McCaul, 1987; DeClue, 1990; Hyatt, 1987; Lindsey, 1986; Valesky & Hirth, 1992; Weinstein, 1989) concluded that administrators were hesitant to be involved in special education because they were inadequately prepared in this area.

Summary of Principals as Special Education Leaders

The passage of legislation in special education and the move toward inclusive practices has put more responsibility on general education principals to implement effective programs for students with disabilities. Early efforts to study factors which impacted principals' attitudes toward the inclusion of children with disabilities into general education settings concentrated on location and/or type of building in which the students were educated (Overline, 1977; Payne & Murray, 1974; Rogers, 1987) and the category of exceptionality of the student (Cline,1981; Jamieson, 1984). Although studies investigating educators' age, certification level, and/or years of experience (Rogers, 1987; Koenecke & Clark, 1986) reported conflicting findings concerning the impact of these variables on the willingness of principals to integrate students with disabilities into the general education environment, research on principals' knowledge of special education has

consistently reported (Davis & McCaul, 1987; DeClue, 1990; Hyatt, 1987; Lindsey, 1986; Valesky & Hirth, 1989) the inadequacy of their preparation to implement effective special education programs.

Principals' Training in Special Education

It is intriguing that, during the course of over a decade, researchers have reported similar findings regarding training needs of principals in the area of special education. In 1980, Stile and Pettibone conducted a national survey to determine (a) whether state certification for special education administration existed, (b) the requirements for this certification, and (c) the existence of training programs leading to this certification. Their findings indicated that only 12 states (24%) required special education course work for certification in general education administration. Results from a five-year follow-up study conducted by these researchers (Stile, Abernathy, & Pettibone, 1986) indicated that little change had occurred since the 1980 study. Some improvement was noted, however, by an increase in the number of states requiring special education course work as part of the general administration program of study. In 1986, sixteen states (35%) required special education course work for certification in general administration.

Hyatt (1987) conducted a study which explored perceptions of elementary school principals in Virginia regarding their ability to administer special education programs in their schools and their attitudes toward additional training needs. A survey instrument was developed by the researcher which addressed preparation and training, confidence levels of principals, and future inservice training needs. It was administered to 173 elementary school principals in fourteen school districts in Virginia with a return rate of 69%. Results of the study indicated that, despite the fact that Public Law 94-142 had been in effect for more than ten years, state certification

standards for general administrators in Virginia did not specify special education related course work. Ninety percent of the principals surveyed felt strongly that additional graduate courses in special education were needed.

Davis and McCaul (1987) found that 70% of the principals they surveyed, using an instrument they developed entitled Principals' Attitudes Toward Special Education (PASE), had very little or no exposure to special education issues. Ninety percent felt that training in special education was important. Consistent with the Hyatt (1987) study in Virginia, Davis and McCaul (1987) found that 52% of the principals in Maine had not taken any course work in special education as part of their university preservice program and approximately 15% received only one such course.

A national survey conducted five years later by Valesky and Hirth (1992) determined little reform had occurred in program requirements for principals regarding special education. Valesky and Hirth (1992) reported that there were no state requirements for a general knowledge of special education in 45% of the regular administration endorsements offered nationally. The most common method of acquiring knowledge in special education was through only one general or introductory special education course. Even with the reform in special education legislation, only one state (2%) required general education administrators to complete a course devoted to the study of special education law and 10% required a general school law course with a special education law component.

Two pilot studies conducted by Harlin-Fischer et al. (1992; 1994; in progress) focused on principals' preparation in special education and their willingness to provide inclusive services for students with disabilities. The first study (Harlin-Fischer & Kleine, 1992) consisted of five interviews with principals from several suburban Midwestern school districts. Questions

were structured around the principals' (a) background, (b) initial interest in educational administration, (c) strengths and weaknesses in preservice preparation, (d) prior experience in education, and (e) situations which caused them the greatest pleasure or frustration as administrators. Themes which frequently emerged from the data related to the need for more university preparation in special education and student behavior management. Another concern which surfaced was the need for more field experiences or an extended internship which provided exposure to special education programs.

The second study (Harlin-Fischer, Gardner, Poillion & Langenbach, 1994) examined factors which influence administrators' willingness to serve students with disabilities in general education settings. One hundred fourteen of the 133 administrators present at the 1994 annual meeting of the Council of Administrators in Special Education (CASE) in Tampa, Florida, completed a 24 item survey comprised of questions regarding demographic data as well as the adequacy of their preservice preparation and clinical experience. Responses of general and special education administrators were compared. Descriptive statistics were reported for each survey item followed by analysis of variance to determine differences between groups. The results indicated that administrators' greatest areas of concern regarding service provision for students with disabilities were their lack of university preparation and clinical experience. Although limitations existed in the fact that respondents in this study had, for the most part, chosen to attend an institute on integrated practices, participants did represent a wide range of program types and geographic regions.

Research on principals' knowledge in special education consistently reports the inadequacy of general administrator preparation programs to train

aspiring principals for their roles as special education leaders (Davis & McCaul, 1987; DeClue, 1990; Hyatt, 1987; Lindsey, 1986; Valesky & Hirth, 1992; Weinstein, 1989). Principals' lack of knowledge in special education has prevented the accomplishment of essential administrative functions.

Effects of Principals' Lack of Training in Special Education

The research bears evidence that principals in general education settings are not adequately prepared in special education to effectively implement inclusive programs for students with disabilities. DeClue (1990) and Weinstein (1989) found that, while principals viewed themselves as competent in the areas of organizing, directing and coordinating special education programs, they were unsure of or unaware of student placement procedures, special education teacher evaluations, and adaptive instructional techniques. Weinstein gathered data from four separate studies of special education programs conducted in three northeastern United States school districts. Data for these studies were collected through surveys, interviews, program audits, and curriculum mapping. Although the results were limited due to differences in purpose and methodology of each of the original studies, Weinstein found similarities existed in all four. Each indicated that principals in targeted districts did not take full responsibility for their school's special education programs because they were unaware of (a) special education policy and procedure, (b) guidelines for special education classification, and (c) criteria for determining appropriate placement for students with disabilities. Ninety percent of the administrators surveyed indicated that they relied on the school psychologist to make decisions concerning special education.

DeClue (1990), whose findings were similar to those of Weinstein (1989), conducted case studies on three elementary principals selected by their

districts' special education directors on the basis of their successful management of special education programs. DeClue discovered that the elementary principals from her study relied on central office special education staff for support and consultation rather than being directly involved with special education programs. This caused them to be more reactive than proactive in the delivery of special education services in their buildings.

New leadership roles for principals and the evidence of an inability to manage these new responsibilities have initiated a movement in general and special education which supports reform in the training of administrators (Anderson, 1991; Burrello, Schrup, & Barnett, 1992; Murphy, 1990; Will, 1986). This reform addresses not only the content of the training, but also the delivery system. The movement supports a more broad content and field-based program which would offer aspiring principals opportunities for exposure to and experience with all aspects of education (Murphy, 1990).

Reform Efforts to Enhance Principals' Knowledge and Skills

In 1986 the National Governors Association reported that certification of principals was based more on educational requirements than on competencies (Anderson, 1991). A year later the University Council for Educational Administration (UCEA, 1987) expanded on these same concerns by issuing a report which identified two specific problems. The first was the lack of collaboration between school districts and universities. A second problem related to principal preparation was the lack of programs which focused on relevant to job-related demands encountered by school administrators.

The National Policy Board for Educational Administration (1989) published four recommendations for reforming the preparation of school administrators. One was to dramatically raise the standards for entrance to

preparation programs. Another focused on ensuring quality in educational administration faculty. Recommendations also suggested that a doctoral degree be required for all those in charge of schools or school systems. The National Policy Board also endorsed the creation of formal relationships between school districts and universities in an effort to develop clinical sites.

Finally, the National Association of Elementary School Principals, in its report Principals for a 21st Century (1990), urged more collaboration among colleges, local school districts, professional administration associations, and state education agencies. This, they believed, would strengthen prerequisites for entry into administration programs. In addition, this collaborative effort provided greater specialization opportunities for elementary and secondary principals. A combined effort of The National Associations of Elementary and Secondary School Principals resulted in the formation of the National Commission on the Principalship (1990) which published a document describing a base of knowledge and skills encompassing twenty-one performance domains (Appendix A). Although these skills included problem solving, judgment, organizational ability, leadership, sensitivity, stress tolerance, and communication, skills specifically related to the special education process were not addressed.

Reform in Special Education Preparation

Reform efforts in special education stemmed from the Council for Exceptional Children (CEC) Professional Standards and Practice Standing Committee (PSPSC). The PSPSC was charged with the task of developing and validating a set of knowledge and skills that the special education profession would agree are minimum requirements for all entry-level professionals in special education (Swan & Sirvis, 1992). The committee formed to develop this set of knowledge and skills was comprised of representatives from each

of CEC's professional divisions, student CEC members, local service providers, colleges and universities, and recipients of CEC's Teacher of the Year Award. Over 2,000 CEC members and others served on committees and working groups to develop and validate these standards and guidelines. Their efforts, which resulted in the adoption of the CEC Common Core of Knowledge and Skills Essential for All Beginning Special Education Teachers, surpass any endeavor by another profession in the field of education to define standards and guidelines for the preparation and certification of its professionals (CEC, 1995).

The CEC Common Core Standards (Appendix B) were later amended as "The International Standards for the Preparation and Certification of Special Education Teachers" (CEC, 1995), and included a code of ethics, an international component, and a separate core of knowledge and skills appropriate for individual categories of exceptionality. Two years later CEC approved the knowledge and skills requirements for entry-level special education administrators and educational diagnosticians (CEC Today, 1997). Similarly to the knowledge and skills developed by the National Commission on the Principalship, CEC standards do not address specifically the minimum competency requirements for principals in special education.

Summary of Principals' Training in Special Education

Several studies (Davis, 1980; Davis & McCaul, 1987; DeClue, 1990; Hyatt, 1987; Lindsey, 1986; Stile, Abernathy, & Pettibone, 1986; Stile & Pettibone, 1980; Valesky & Hirth, 1992; Weinstein, 1989) concluded that administrators in general education facilities were inadequately prepared to administer programs for students with disabilities. Moreover, little change has been evidenced in the content and delivery of these preparation programs since the passage of PL 94-142 in 1975 (Stile, Abernathy, & Pettibone, 1986;

Stile & Pettibone, 1980; Valesky and Hirth, 1992). Two studies (DeClue, 1990; Weinstein, 1989) reported that, due to inadequate preparation, principals were often unsure of or unaware of policy and procedure regarding special education and tended to rely on others to make decisions in these areas.

Efforts have been made to enhance the university preparation of building administrators (Anderson, 1991; Burrello, Schrup, & Barnett, 1992; Murphy, 1990). However, neither educational administration nor special education have addressed specifically the knowledge and skills needed by principals to implement effective programs for students with disabilities in general educational environments. Therefore, it seems logical to conclude that, based on the failure of previous reform efforts, competencies must be developed which address what principals must know and be able to do within the domain of special education.

Competencies Necessary for Principals in Special Education

A topic of interest for several years has been the knowledge and skills principals need in special education (Anderson & Decker, 1993; Burrello, Schrup, & Barnett, 1992; Cochrane & Westling, 1977; Gargiulo, 1990; Rude & Rubadeau, 1992). Most research in this area related to the implementation of the provisions of special education legislation such as the least restrictive environment (Gargiulo, 1990) and individualized educational plans (IEPs) (Anderson & Decker, 1993). However, with the move toward inclusive programing, competencies for principals have expanded to include skills relating to leadership and the commitment to successfully meet the educational needs of all children (Burrello, Schrup, & Barnett, 1992).

Principals must now maintain authority over the daily function of all staff within their buildings and effectively implement coordinated, integrated special education programs. Cochrane and Westling (1977) suggested several

areas in which principals should be knowledgeable. First, principals should know the characteristics of children with disabilities and communicate students' educational needs to school and community members. Rude and Rubadeau (1992) expanded on this by emphasizing that principals should be able to recognize student learning styles and match them with teaching strategies in order to effectively evaluate special education programs. In addition, they stressed that principals be able to utilize special educators to exercise alternative means of support for general education teachers and provide integrated programs for students. Some authors (Cochrane & Westling, 1977; Rude & Rubadeau , 1992) agreed that principals should know how to combine special and regular education funding and encourage teachers to educate all students about various disabilities.

A commonly referenced study conducted by Rude and Rubadeau (1992) compared perceptions of building level principals from two school districts regarding their priorities on selected special education competency areas. The sixteen item survey used for this study was developed in an earlier project conducted by the researchers from items reviewed and critiqued by practicing principals and central office administrators in two different settings. An open response question was also provided to determine whether additional skills or competencies were needed. A total of 52 of 57 (91%) possible respondents completed and returned the survey and multiple analysis of variance was used to determine statistical significance of differences between variables. The results yielded a list of competency statements in rank order from the most important to least important for the total group. Inferential statistics found statistically significant differences on several items that were compared according to individual demographic variables. The sixteen competencies reported most important by this study were:

1. Selection of a special education staff who espouse the philosophy of integration.
2. Recognizing the ongoing need for program and staff development in special education.
3. Fosters the inclusion of special education students by modeling total school responsibility for all students.
4. Ability to recognize student learning styles and match with teaching strategies.
5. Philosophical orientation that indicates integration of special needs students benefits all students.
6. Recognition of specialized instructional needs and appropriate access of technical support.
7. Ability to identify and access human services organizations on behalf of students in need.
8. Ability to select appropriate decision-making skills ranging from directive to delegating.
9. Recognizing the importance of accountability in special education programs
10. Communication with diverse audiences such as parents, advocacy organizations, the courts, social services agencies, etc.
11. Understanding and applying the continuum of special services concept to meet the needs of all learners
12. Legal aspects of special education
13. Tolerance for uncertainty in special education situations.
14. Use of technology to enhance instruction.
15. Use of technology in special education to assist administrative record keeping.

16. Knowledge and application of special education finance and reimbursement systems.

Rude and Rubadeau's conclusions were consistent with the belief that principals should not only understand federal and state requirements for student evaluation and placement, but also foster and participate in staff development programs which strengthen the faculty's ability to work collaboratively toward meeting the needs of students with disabilities (Rodriguez, 1994).

Although the Rude and Rubadeau study specified essential knowledge and skills necessary for building administrators to implement effective special education programs, its findings were based on a small sampling of principals from only two school districts. The study also relied too heavily on self-reports, since only principals were asked what they believed to be necessary knowledge and skills and teachers' perceptions were not considered. Although principals' beliefs are important, the reliability of data collected from only one source is limited. In addition, the validity of the survey instrument may be in question because it was reviewed by only a small sampling of principals and central office administrators from the two targeted school districts.

Summary of Competencies Necessary for Principals in Special Education

The literature has emphasized the need to ensure that building principals have specific skills related to program development for students with disabilities (Anderson & Decker, 1993; Burrello, Schrup, & Barnett, 1992). Several essential competencies necessary for principals in the area of special education have been identified (Cochrane & Westling, 1977; Rude & Rubadeau, 1992). However, due to limitations of previous studies, a reliable study has not yet been conducted which could potentially impact the

improvement and/or development of university training for principals and strengthen the possibility that those who administer special education programs in general education settings have an understanding of special education theory and law, as well as effective practices for educating students with disabilities.

Summary of Chapter II

Principals occupy important roles as visionary leaders in establishing the climate and instructional organization necessary to ensure the successful inclusion of children with disabilities into general education. However, reform in special education legislation and the movement toward inclusion have created challenges for principals. These challenges, which resulted, in part, from differences in special education terminology regarding the LRE and disagreement among scholars on the relevance of inclusive practices, include (a) effectively communicating special education laws, policies, and procedures to school staff and parents, (b) determining best practice and/or placement for students with disabilities served in general education settings, and (c) implementing innovative special education programs, such as inclusion, within their schools.

Research has indicated that principals are inadequately prepared to effectively administer programs for students with disabilities. Although reform efforts have been made in general and special education regarding the preparation of their professionals, the knowledge and skills necessary for principals to implement programs for students with disabilities have not yet been adequately addressed. Certainly, studies have been conducted which suggest competencies necessary for principals in the area of special education. However, due to the limitations of previous research, reliable data has not yet been presented which has impacted the university training of principals to

the extent that a set of minimum standards in special education have been adopted.

Chapter II provided a review of literature related to the knowledge and skills necessary for principals in special education and attitudes and behaviors which support successful inclusive programming in general education settings. Specifically, the literature reviewed provided the rationale for the following research questions:

1. What skills and knowledge identified in standards from the CEC Common Core of Knowledge and Skills Essential for All Beginning Special Education Teachers do elementary principals believe are necessary to effectively implement special education programs?
2. What skills and knowledge identified in standards from the CEC Common Core of Knowledge and Skills Essential for All Beginning Special Education Teachers do elementary general education teachers believe are necessary for principals to effectively implement special education programs?
3. What skills and knowledge identified in standards from the CEC Common Core of Knowledge and Skills Essential for All Beginning Special Education Teachers do elementary special education teachers believe are necessary for principals to effectively implement special education programs?
4. What differences, if any, exist among the responses of elementary school principals, general education teachers, and special education teachers regarding their perceptions of the knowledge and skills necessary for principals to effectively implement special education programs?

5. To what extent do elementary school principals, general education teachers, and special education teachers believe behaviors and attitudes which support inclusive programs for students with disabilities are evident within their schools?

Chapter III presents the research design and methodology of the study.

CHAPTER III

Research Design and Methodology

This chapter addresses the research design, or the plan for the study, which includes a description of the population, the development of the survey instruments, and data collection procedures. The methods used to analyze the study are also explained. The definition of terms used in this study are located in Appendix C.

Selection of the Population

The population for this study was selected from certified elementary principals, special education teachers, and general elementary teachers throughout Oklahoma. The rationale for remaining within a single state population was based on several factors. First, the willingness of key individuals in Oklahoma to support the study made it a desirable location. Also, upon careful examination of each research question and consideration of the fact that Oklahoma contains a wide range of program types and geographic variations, there was no clear reason for conducting the research in another single state or combination of locations. Moreover, one might predict that conducting a study within the home state of the researcher increases the likelihood its findings will be realized. The population selection utilized the following process.

Lists of all elementary principals (approximately 1,000) and all special education teachers (approximately 6,000) in Oklahoma were obtained from the Oklahoma State Department of Education. Using the list of elementary principals, all elementary schools were divided into two groups, according to buildings which provided programs for students with mild to moderate disabilities versus those which provided programs for students with severe to profound disabilities. Special education teachers' assignments, as coded by the

State Department of Education, were used as the criteria for discriminating between the two categorical areas. Whenever a building indicated service provision to students within both mild/moderate and severe/profound categories, it was assigned to the severe/profound group. This decision was based on the fact that there are more programs for students in the mild to moderate category of exceptionality than the severe to profound. Once the two groups were established, participants were selected proportionately from each group.

Principal participants were chosen first. This was accomplished by selecting a random sample (20% of the total) of elementary principals from each of the two categorical areas, using a table of random numbers to assign subjects to groups. Thus, 100 principals were chosen from the group which provided programs for students with mild/moderate disabilities and 100 were selected from the severe/profound group. This process also identified the 200 participant schools for the study, from which teacher participants were then selected.

Two hundred special education teacher participants were selected randomly from the list supplied by the State Department of Education, according to schools previously targeted and each teacher's specific teaching assignment. Each special education teacher participant was requested, in the letter which accompanied the initial survey, to select one general education teacher in their building to participate in the study. The letter specified that the selection of general education teachers be based upon their knowledge of special education and experience working with students with disabilities. Thus, the final sample was comprised of one elementary principal, one special education teacher, and one general education teacher from each of the 200 targeted schools.

Development of the Instruments

This study utilized two questionnaires to obtain data (Appendix D). Because appropriate survey instruments were not available for this study, surveys were developed by the researcher. Survey I, entitled Knowledge and Skills in Special Education (KSSE), gathered demographic data and sought information addressing the knowledge and skills necessary for principals in special education. The second instrument, entitled Programs for Students with Disabilities (PSD), was designed to investigate the evidence of behaviors and attitudes which support inclusive practices for students with disabilities in general education settings. Separate versions of the instruments were developed for elementary principals, general elementary teachers and special education teachers in order to collect individualize demographic data and obtain responses to open ended questions unique to each group. The development of the instruments utilized the following process.

Survey I: Knowledge and Skills in Special Education (KSSE)

The purpose of the KSSE was to identify knowledge and skills necessary for principals in special education. Section I was designed to gather demographic information regarding respondents' program location, number of years experience as a teacher or principal, prior teaching and/or special education experience, highest degree earned, present school enrollment, and gender. Within the demographic section in the version of KSSE sent to principals, additional questions were included regarding respondents' internship experiences. The demographic section in the version of KSSE sent to special education teachers contained questions which identified their individual teaching assignments. The version of KSSE sent to general education teachers contained questions designed to elicit responses regarding teachers' "in classroom" experiences teaching students with disabilities.

Section II of the KSSE investigated the perceptions of elementary principals, elementary general education teachers, and elementary special education teachers regarding the knowledge and skills necessary for principals to effectively implement special education programs. Responses were rated on a Likert-type scale from 1-4, with 1 indicating lowest and 4 indicating the highest degree each knowledge/skill was perceived necessary. Statements in this section of the KSSE were identical for the three participant groups and were chosen from the CEC Common Core of Knowledge and Skills (CEC, 1995) which were representative of special education competencies needed for principals, as indicated within current literature. Appendix D provides copies of the KSSE.

Survey II: Programs for Students with Disabilities (PSD)

The second questionnaire was designed to gather data regarding the perceptions of attitudes and behaviors which support inclusive practices. Two checklists were used as models in the development of this survey. One was the School Inclusion Assessment in South Dakota Statewide Systems Change Project. A Closer Look at Inclusion. (South Dakota Statewide Systems Change Project, 1993). The other checklist used was the Inclusion Practice and Priorities Instrument (Montie, Vandercook, York, Flower, Johnson, & MacDonald, 1992). Both of these instruments were used previously to investigate the evidence inclusive practices for students with disabilities. A different version of the PSD was sent to each participant group upon receipt of the first survey. Appendix D provides copies of the PSD.

Principal Version of the PSD

Section I of the PSD sent to principals was designed to elicit specific information from principals concerning the types of programs provided for students with disabilities and the categories of exceptionality of students

identified by special education in their buildings. Section II contains individual statements which gathered data regarding the evidence of behaviors and attitudes supportive of inclusive practices for students in their schools. The statements were rated by respondents on a Likert-type scale from 1-4, with 1 indicating lowest and 4 indicating the highest degree of evidence of each practice.

Section III contained five open-ended questions. These questions investigated factors which influenced principals' involvement in special education, their attitudes toward the integration of students with disabilities in general education, and their perceptions regarding training needs for their staff. Principals were also asked one question which was not asked of special or general education teacher participants. This question explored what, if any, professional training they believed was necessary to enhance their skills in effectively implementing programs for students with disabilities in their schools.

Special Education Teacher Version of the PSD

Section I of the special education teacher version of the PSD was identical to the principal version, except that it asked participants to report the number of students eligible for special education services in their schools. It did not seem necessary to question special education teachers about their involvement in special education programs. Consequently, Section III of this version of the PSD contained three open-ended questions which allowed special education teachers to expand on their perceptions regarding the knowledge and skills necessary for principals, as well as training needs for their staff in special education.

General Education Teacher Version of the PSD

The general education teacher version of the PSD had only one

question in Section I which was not asked of either principals or special education teachers. General education teachers were asked how many students eligible for special education services remained in their classrooms all day. General education teachers were given four open-ended questions which investigated their attitudes regarding inclusive special education programming. These questions were identical to the principals' version, with the omission of the question regarding professional training necessary to implement programs for students with disabilities.

Validity and Reliability of Instruments

Validity of the surveys was determined in two ways. Content validity of the KSSE was established by searching the literature for competencies needed by principals in the area of special education and selecting those which compared to standards from CEC Common Core of Knowledge and Skills. Content validity of the PSD was established through the use of two checklists which had been used previously to determine the adequacy of schools to provide inclusive education programs for students with disabilities (Montie, Vandercook, York, Flower, Johnson, & MacDonald, 1992; South Dakota Statewide Systems Change Project, 1993).

Secondly, three principals, three special education teachers, and three general education teachers who were employed in public education at the time of the study examined both surveys and offered suggestions to improve the content and clarity of the statements. In addition, both surveys were reviewed thoroughly by two university professors accomplished in survey research. The instruments were then revised to incorporate the educators' suggestions.

Internal reliability of the instruments was first tested using Cronbach's Alpha Coefficient. This test is employed when using survey instruments

with multiple answers, each having different weights, such as the Likert-type items used in this study. Both instruments were found to have a reliability above acceptable (.70) (Henerson, Morris, & Fitz-Gibbon, 1987).

Procedure

Data were collected from the two questionnaires mailed to a stratified random sampling of elementary principals, general education teachers and special education teachers throughout Oklahoma. Prior to the initial survey, a letter of introduction was mailed to all participants to introduce and describe the study and assure them of confidentiality (Appendix E). The surveys were sent in two separate mailings, each with self-addressed, stamped envelopes to facilitate their return. A post card followed ten days after the first mailing to all participants as a reminder to complete and return the first questionnaire and alert them that a second survey would be forth-coming upon receipt of the initial survey Two weeks after mailing the post card, follow-up phone calls were also made to schools which had not yet responded to the KSSE in an effort to increase the return rate before mailing the PSD. The researcher made every attempt to receive as many responses to the KSSE as possible.

Within two months after mailing the KSSE, the PSD was sent to all participants in each school which responded to the first questionnaire. A short note accompanied each survey, either thanking the participant for completing and returning the KSSE or encouraging the participant to complete and return both surveys. This method was successful in increasing the return rate of the KSSE and in obtaining an acceptable response rate on the PSD.

Although, in most educational studies respondents are asked to identify themselves, anonymity is sometimes appropriate if data reported

may be threatening to the subjects. Because participants in this study responded to identical items concerning the implementation of special education programs within their buildings, they may have felt threatened or uneasy about identifying themselves. Therefore, this study was conducted anonymously. A system of coding the surveys was used for analysis purposes only. There were no known risks to participants in this study and results from this research could benefit the field of education by identifying specific competencies necessary for principals to implement effective special education programs within their schools.

Data Analysis

The compiled data were statistically analyzed through the use of the SAS/STAT Version 1.1 (1989). Each question in this study was individually analyzed first using descriptive quantitative methodology. Questions one, two, three and four were analyzed through data collected from the KSSE, which elicited responses on items regarding the knowledge and skills necessary for principals to implement special education programs. Quantitative results were supported qualitatively through the analysis of specific open-ended questions from the PSD. Question four was examined through exploratory analysis (analysis of variance) to infer differences among groups, and post hoc analysis was conducted to evaluate the results of the ANOVA.

Question five utilized data collected from the PSD, which gathered information regarding the degree to which inclusive practices were evidenced within participant schools. Descriptive statistics were initially reported. Analysis of variance was then employed as a test of differences among groups and post hoc analysis was conducted to examine group differences, once the null hypothesis was rejected. In addition, the use of qualitative methodology

was employed to analyze the open-ended questions.

There was a uniform procedure for the analysis of all open-ended questions. The questions were first interpreted individually and emerging themes were noted for each question within each respondent group. Responses were categorized by recurring themes which surfaced in relation to the knowledge requirements for principals, professional development needs in special education and factors which influence attitudes and behaviors regarding principals' involvement in and implementation of inclusive special education programs. A coding system was then devised to identify each category and provide organization for analysis of the content (LeCompte & Preissle, 1993).

Summary of Chapter III

Data for this study were collected from two questionnaires which were mailed to a stratified random sampling of elementary principals, general education teachers and special education teachers throughout Oklahoma. Several procedures were utilized to determine the reliability and validity of the instruments. The compiled data were then statistically analyzed quantitatively through the use of the SAS/STAT Version 1.1 (1989). Results were reported using descriptive and exploratory statistics. Qualitative questions were analyzed uniformly using appropriate qualitative methodology. Chapter IV will present and display a detailed analysis of each research question.

CHAPTER IV

Results

The purpose of this study was to determine the skills and knowledge necessary for principals to implement effective special education programs within general education settings. In addition, this study investigated perceptions regarding attitudes and behaviors supportive of inclusive programs for students with disabilities in general education buildings as reported by principals, general education teachers, and special education teachers.

The results presented in this chapter will begin by addressing the surveys response rates. Subsequently, data are organized and presented in a manner which address the five research questions posed in this study.

Survey Response Rates on the KSSE and PSD

The KSSE was the first mailing sent to principals, special education teachers, and general education teachers (N=600) throughout Oklahoma. From this initial mailing, a total of 223 (37%) surveys were completed and returned. This total represented 110 (55%) of the schools surveyed. Principals returned 77 (39%) surveys, special education teachers returned 85 (43%), and general education teachers completed and returned 71 (36%). The PSD was mailed to principals, special education teachers, and general education teachers in 110 schools (N=330) upon completion of the first survey. A total of 185 (56%) surveys were completed and returned, representing 62 (56%) principals, 71 (65%) special education teachers, and 52 (47%) general education teachers.

Knowledge and Skills Necessary for Principals in Special Education

Participants' responses on the KSSE were analyzed to determine the knowledge and skills necessary for principals to implement effective special education programs. The methodological procedure used to interpret the data gathered from the KSSE is explained in this section of Chapter IV.

Reliability of the KSSE

Cronbach's Coefficient Alpha was used to test the reliability of the KSSE. This particular analysis excluded demographic data (Section I). Reliability factors greater than .70 were considered acceptable (Henerson, Morris, & Fitz-Gibbon, 1987). Analysis yielded Cronbach's Coefficients which indicated a high degree of reliability in five of the six factors extracted from the KSSE. A moderate degree of reliability (.61) was indicated in the factor relating to ethics. Results are presented later in this chapter (Table 14).

Demographics of the KSSE

Characteristics of educators responding to the KSSE are included in this demographic section and represent 233 participants. Respondents' specific job types, degree(s) earned, gender, and years of experience are presented in Table 1. Community population, teaching assignment, and classroom experience regarding students with disabilities are also reported relevant to individual job types in Tables 2, 3, and 4.

Job Types, Degrees Earned, Gender, Experience

A total of 233 educators responded to the KSSE. Job types were evenly matched in number across the responding population. Principals comprised 33% of the respondents, special education teachers made up 36.5% of the respondents and 30.5% of the responding population were general education teachers. Demographic data for all respondents is reported in Table 1.

Table 1
Demographic Data of All Respondents (N=233)

Demographic Item	Frequency	Percent of Responses
	n	%
Specific Job Title		
Principal	77	33
Special Education Teacher	85	36.5
General Education Teacher	71	30.5
	233	100%
Degree(s) Earned		
BSED	74	31.7
Master's	77	33.1
Master's +30	75	32.2
Doctoral	6	2.6
Missing	1	0.4
	233	100%
Gender		
Male	38	16.4
Female	188	80.6
Missing	7	3.0
	233	100%
Years Experience		
1-10 years	117	50.2
11-20 years	75	32.2
21-35 years	41	17.6
	233	100%

Thirty-two percent of the respondents held a Bachelors degree, 33% held a Masters degree and 32% held a Masters degree plus 30 hours. Only a small percentage (2.6%) of the responding population held a doctorate.

As one might expect when surveying elementary principals and teachers, there was a very disproportionate number of female to male respondents. Eighty-three percent of the respondents were female and only 17% were male.

Fifty percent of the respondents had at least ten years of experience in the education field. Thirty-two percent of the participants had between 11-20 years of experience and 18% had over twenty years of teaching or administrative experience.

Principals' Community Population, Prior Experience and Internship Experience

Some demographic questions were asked only of principals. This section presents principals' responses relating to the population of their community, their prior teaching experiences and whether or not they had participated in an internship as part of their university preparation. Data is reported in Table 2.

Principals reported that 36% came from urban or suburban school districts and 61% from rural districts. Although care was taken to survey a proportionate population from each geographic area, it is not uncommon in Oklahoma to receive a heavy rural responding group, since a large portion of the state is rural.

Typically for elementary principals, the majority (87%) reported prior experience in the elementary teaching category because most elementary principals are hired from an elementary teacher pool. However, 27% reported they had some junior high/middle school experience, 10% indicated

prior high school teaching experience, and 17% reported they had taught special education before becoming an administrator.

Only 22% of the principal respondents indicated that they had received an internship experience as part of their administrator university preparation. Since such a small percentage of the total principal population participated in an internship experience, it was not feasible to use this data to assess a relationship between the internship and principals' responses on knowledge and skills items.

Table 2
Demographic Data of Principals (N=77)

Demographic Item	Frequency	Percent of Responses
Community Population		
Urban/Suburban	28	36.4
Rural	47	61.0
Missing	2	2.6
	77	100%
Prior Teaching Experience		
Elementary	67	87
Junior High/Middle	21	27.3
High School	8	10.4
Special Education	13	16.9
Internship Experience		
None	60	77.9
Yes	17	22.1
	77	100%

Special Education Teachers' Assignments

Special education teachers were asked to specify whether they taught students in the mild to moderate category of exceptionality or if the students they served were categorized as severe to profound. Although an effort was made, when creating the sample population, to equalize these groups as closely as possible, 74% of the special education teacher respondents indicated they taught students within the mild to moderate category. Twenty-two (25.9%) of the special education teacher participants served students categorized as severe to profound. This information is reported in Table 3.

Table 3
Special Education Teachers' Teaching Assignment (N=85)

Demographic Item	Frequency	Percent
	n	%
Category of Exceptionality		
Mild/Moderate	63	74.1
Severe/Profound	22	25.9
	85	100%

General Education Teachers' Experience in Special Education

General education teachers were asked to specify the amount of classroom experience they had with students identified in special education. Although all respondents reported some classroom experience teaching students with disabilities, 11% of the general education teachers indicated limited experience in this area. Forty-nine percent of the general education teachers reported classroom experience with students categorized only as mild to moderate, while 39% specified they had experience working with students

of mild to moderate and severe to profound disabilities (Table 4).

Table 4
General Education Teachers' in Classroom Experience with Students with Disabilities (N=71)

Demographic Item	Frequency	Percent
	n	%
No Experience	0	0.0
Little experience with students with disabilities	8	11.3
Experience often with students in mild/moderate category only	35	49.3
Experience with students in both mild/moderate and severe/ profound categories	28	39.4
	71	100%

Summary of KSSE Demographic Data

Thirty-three percent of the 233 respondents were principals, 37% were special education teachers, and 31% were general education teachers. The majority (68%) of respondents held Masters degrees or better. Principal respondents indicated predominately elementary teaching experience (87%), with 17% reporting prior teaching experience in special education. Seventy-four percent of the special education teachers taught children categorized as mild to moderate, 26% taught students in the severe/profound category. Thirty-nine percent of the general education teacher respondents had worked with students categorized as both mild/moderate and severe/profound, while 49% had classroom experience only with those categorized as mild/moderate.

Responses of All Educators to KSSE

Data in this section relate to the first four research questions. Data are presented to illustrate responses of all participants regarding the knowledge and skills necessary for principals in special education. First, frequency distributions are reported by raw numbers and percentages (Table 5). Then a rank order of the means of individual knowledge and skills items is presented (Table 6) according to the perceived degree each is necessary.

Data reported in Table 5 indicate the majority of respondents believed it "extremely necessary" that principals be knowledgeable of (1) special education law as it pertains to the rights and responsibilities of all parties involved (K 4, 79%), (2) due process procedures related to eligibility and placement (K 3, 73%), (3) guidelines for assessment (K 10, 67%), and (4) ethics involved in confidential communication (K 26, 60%). In addition, the majority of respondents believed it "extremely necessary" that principals understand the guidelines for the behavior management of students with disabilities (K 20, 63%) and be cognizant of teacher attitudes that affect student behaviors (K 21, 51%). Understanding the roles of all individuals involved in planning student individualized educational programs was considered "necessary" by most (K 25, 52%) of the respondents and "extremely necessary" by an additional 39%. A majority of participants considered it "extremely necessary" that principals be able to model appropriate behavior toward students with disabilities (S 8, 83%) and demonstrate a commitment to the highest educational goals and quality of life (S 7, 73%) for them. Most respondents also reported it "extremely necessary" that principals be able to collaborate with students, parents, the school staff, and the community (S 6, 53%) and implement the least restrictive placement or intervention for students with disabilities (S 5, 51%).

Table 5

Frequency and Percent of All Respondents' Perceptions Regarding the Knowledge and Skill Principals Need in Special Education (N=233)

Survey Items	Respondents' Perceptions			
Principals should know:	Not at All N(%)	Some-What N(%)	Necessary N(%)	Extremely Necessary N(%)
K1. Models, theories, and philosophies	7 (3.0)	49 (21.0)	118 (51)	59 (25)
K2. Definition and identification issues	1 (0.4)	20 (8.6)	102 (44)	110 (47)
K3. Due process rights assessment/placement	0 (0.0)	6 (3.0)	55 (24)	172 (73)
K4. Rights and responsibilities of team	0 (0.0)	2 (1.0)	47 (20)	184 (79)
K5. Typical and exceptional learners	4 (2.0)	36 (16.0)	129 (55)	64 (27)
K6. Cultural /environment effect on families	4 (1.0)	44 (19.0)	137 (59)	48 (21)
K7. Effects of medications	4 (2.0)	45 (19.0)	97 (42)	87 (37)
K8. Basic terminology used in assessment	2 (1.0)	28 (12.0)	130 (56)	73 (31)
K9. Ethical concerns related to assessment	1 (0.4)	35 (15.0)	119 (51)	77 (33)
K10. Legalities and guidelines of assessment	1 (0.4)	13 (5.6)	63 (27)	156 (67)
K11. Screening,prereferral, referral, classification	3 (1.3)	21 (9.0)	122 (52)	87 (37)
K12. Application/interpretation of test scores	5 (2.0)	51 (22.0)	118 (51)	59 (25)
K13. Relationship betwn assessment /placement	1 (0.4)	25 (11.0)	138 (59)	69 (30)
K14. Methods of monitoring student progress	4 (2.0)	51 (22.0)	134 (58)	44 (19)
K15. Adapt learning styles to teaching styles	3 (1.3)	58 (25.0)	103 (44)	69 (30)
K16. Life skills instruction	8 (3.4)	55 (24.0)	117 (50)	53 (23)
K17. Classroom management theories /methods	2 (1.0)	53 (23.0)	116 (50)	62 (27)
K18. Research/ best practice of teaching/ learning	2 (0.9)	69 (30.0)	111 (48)	51 (22)
K19. How technology can assist in teaching/learning	2 (1.0)	74 (32.0)	113 (48)	44 (19)
K20. Laws, rules, and regulations of students' behavior	0 (0.0)	8 (3.0)	79 (34)	146 (63)
K21. Teacher attitudes/behaviors that affect students	2 (1.0)	18 (8.0)	95 (41)	118 (50)
K22. Strategies for crisis prevention/intervention	1 (0.4)	18 (8.0)	102 (44)	112 (48)
K23. Preparing students to live independent	6 (3.0)	61 (26.0)	115 (49)	51 (22)
K24. Dealing with concerns of parents	0 (0.0)	25 (11.0)	131 (56)	77 (33)
K25. Role of all involved in planning IEP	1 (0.4)	22 (9.0)	12 (52)	90 (39)
K26. Ethical/confidential communication	1 (0.4)	18 (8.0)	76 (33)	138 (60)
K27. One's own biases that affect attitudes	5 (2.0)	46 (20.0)	114 (49)	68 (29)
Principals should be able to:				
S1. Articulate philosophy of sp ed/ gen ed	4 (2.0)	26 (11.0)	117 (50)	86 (37)
S2. Construct activities with laws/regs	2 (1.0)	48 (20.0)	90 (39)	93 (40)
S3. Interpret assessment for instruction	16 (7.0)	74 (32.0)	109 (47)	34 (15)
S4. Use variety of behav mgt techniques	4 (2.0)	41 (18.0)	121 (51)	67 (29)
S5. Use least restrictive placement/intervention	2 (1.0)	26 (11.0)	86 (37)	119 (51)
S6. Collaboration with complete team	1 (0.4)	16 (7.0)	93 (40)	123 (53)
S7. Commitment to education/quality of life	0 (0.0)	7 (3.0)	55 (24)	171 (73)
S8. Model appropriate behavior toward students	0 (0.0)	5 (2.0)	34 (15)	194 (83)

Note: K=Knowledge items; S=Skills items

Table 6 displays a rank order of mean scores on knowledge and skills items from the most necessary to least necessary perceived by all respondents.

Table 6
Ranking of All Respondents' Perceptions Regarding the Knowledge and Skills Principals Need in Special Education (N= 233)

Survey Items	Respondents' Perceptions
	Mean (SD)
Principals should know:	
Rights and responsibilities of parents,students and school staff (K4)	3.78 (0.43)
Due process rights in assessment, eligibility and placement (K3)	3.71 (0.51)
Legalities and guidelines related to assessment (K10)	3.61 (0.61)
Laws, rules, and regulations regarding special students' behavior (K20)	3.59 (0.55)
Ethical practices for confidential communication (K26)	3.50 (0.68)
Teacher attitudes/behaviors that affect student behaviors (K21)	3.41 (0.67)
Issues in definition and identification procedures (K2)	3.38 (0.66)
Roles of all involved in planning students' IEP (K25)	3.28 (0.65)
Screening,prereferral, referral, and classification procedures (K11)	3.26 (0.67)
Strategies for dealing with concerns of parents (K24)	3.22 (0.62)
Relationship between assessment and placement (K13)	3.18 (0.62)
Basic terminology used in assessment (K8)	3.18 (0.66)
Ethical concerns related to assessment (K9)	3.17 (0.69)
Effects of medication on students' educational and social behavior (K7)	3.15 (0.79)
Similarities and differences of typical and exceptional learners (K5)	3.09 (0.71)
One's own cultural biases that affect attitudes (K27)	3.05 (0.76)
Classroom management theories and methods (K17)	3.02 (0.73)
Adaption of learning styles to teaching styles (K15)	3.02 (0.77)
Application and interpretation of test scores (K12)	2.99 (0.75)
Characteristics /effects of cultural and environment on families (K6)	2.98 (0.68)
Models, theories, and philosophies in special education (K1)	2.98 (0.77)
Methods of monitoring student progress (K14)	2.94 (0.69)
Life skills instruction for independent living and employment (K16)	2.92 (0.79)
How research relates to best practice in teaching/learning (K18)	2.91 (0.74)
Strategies for preparing students to live in world (K23)	2.91 (0.76)
How technology can assist in teaching/learning (K19)	2.85 (0.72)
Principals should be able to:	
Model appropriate behavior toward students (S8)	3.82 (0.44)
Demonstrate commitment to highest education/quality of life (S7)	3.70 (0.52)
Collaborate with students, parents, community and school staff (S6)	3.45 (0.64)
Implement least restrictive placement/intervention (S5)	3.39 (0.71)
Articulate a philosophy of sp education/ gen education (S1)	3.22 (0.71)
Construct activities consistent with sp ed laws/regulations (S2)	3.17 (0.78)
Demonstrate a variety of behavior mgt techniques (S4)	3.08 (0.73)
Interpret assessment data for instructional planning (S3)	2.69 (0.80)

Note: Means closer to 1=not at all necessary, 2=somewhat necessary, 3= necessary, 4= extremely necessary; Item number follows item in parentheses

Principals Perceptions of the Knowledge and Skills Necessary in Special Education

The data presented in this section answer research question one: What skills and knowledge identified in standards from the CEC Common Core of Knowledge and Skills Essential for All Beginning Special Education Teachers do elementary principals believe are necessary for them to effectively implement special education programs?

Both quantitative and qualitative sources were used to answer this question. Principals' responses on each Likert-type item are reported in Table 7 by frequency counts and means, with standard deviations.

Principals' average mean scores did not indicate any of the knowledge and skills to be "not at all necessary" or "somewhat necessary". Five knowledge items principals perceived "extremely necessary" were (1) the rights and responsibilities of parents, students, teachers, and schools as they relate to special education (K4, M=3.79), (2) due process rights for assessment and placement (K3, M=3.68), (3) the legalities and guidelines of assessment (K10, M=3.64), (4) laws, rules, and regulations regarding student behavior (K20, M=3.57), and (5) the ethics of confidential communication (K26, M= 3.54). Principals reported it "extremely necessary" that they be able to model appropriate behavior toward students (S8, M=3.82) and demonstrate a commitment to the highest quality of education and quality of life (S7, M=3.57). Knowledge regarding definition and identification issues (K2, M=3.38) and the screening, prereferral, referral, and classification process (K11, M=3.36) were considered "necessary". Overall, principals' mean response scores on 28 of the 35 (80%) knowledge and skills items were M= 3.00 or above.

Table 7

Frequency and Mean Scores of Principals' Responses Regarding the Knowledge and Skills Necessary in Special Education (N=77)

Survey Items	Frequency (Percent)				Mean (SD)	Degree of Need
Principals should know:	Not at all 1 (%)	Some-what 2 (%)	Neces-sary 3 (%)	Extremely 4 (%)	M (SD)	Degree of Need
K1. Models, theories, and philosophies sped	1 (1.3)	17 (22.1)	46 (59.7)	13 (16.9)	2.92 (0.66)	Necessary
K2. Definition and identification issues	0 (0.0)	6 (7.8)	36 (46.8)	35 (45.5)	3.38 (0.63)	Necessary
K3. Due process rights assessment/placement	0 (0.0)	2 (2.6)	21 (27.3)	54 (70.1)	3.68 (052)	Extremely
K4. Rights and responsibilities of team	0 (0.0)	0 (0.0)	16 (20.8)	61 (79.2)	3.79 (0.41)	Extremely
K5. Typical and exceptional learners	0 (0.0)	12 (15.6)	45 (58.4)	20 (26.0)	3.10 (0.64)	Necessary
K6. Cultural /environment effect on families	1 (1.3)	14 (18.2)	49 (63.6)	13 (16.9)	2.96 (0.64)	Necessary
K7. Effects of medications	0 (0.0)	16 (20.8)	35 (45.5)	26 (33.8)	3.13 (0.73)	Necessary
K8. Basic terminology used in assessment	0 (0.0)	1 (1.3)	50 (64.9)	26 (33.8)	3.32 (0.50)	Necessary
K9. Ethical concerns related to assessment	1 (1.3)	5 (6.6)	44 (57.9)	26 (34.2)	3.25 (0.64)	Necessary
K10. Legalities and guidelines of assessment	0 (0.0)	3 (3.9)	22 (28.6)	52 (67.5)	3.64 (0.56)	Extremely
K11. Screening,prereferral, referral, classification	0 (0.0)	1 (1.3)	47 (61.0)	29 (37.7)	3.36 (0.51)	Necessary
K12. Application/interpretation of test scores	0 (0.0)	12 (15.6)	49 (63.6)	16 (20.8)	3.05 (0.60)	Necessary
K13. Relationship betwn assessment /placement	0 (0.0)	6 (7.8)	53 (68.8)	18 (23.4)	3.16 (0.54)	Necessary
K14. Methods of monitoring student progress	0 (0.0)	11 (14.3)	52 (67.5)	14 (18.2)	3.04 (0.57)	Necessary
K15. Adapt learning styles to teaching styles	0 (0.0)	10 (13.0)	46 (59.7)	21 (27.3)	3.14 (0.62)	Necessary
K16. Life skills instruction	1 (1.3)	19 (24.7)	43 (55.8)	14 (18.2)	2.91 (0.69)	Necessary
K17. Classroom management theories /methods	0 (0.0)	8 (10.4)	47 (61.0)	22 (28.6)	3.18 (0.60)	Necessary
K18. Best practice in teaching/learning	0 (0.0)	18 (23.4)	42 (54.5)	17 (22.1)	2.99 (0.68)	Necessary
K19. How technology can assist in teaching/learning	1 (1.3)	22 (28.6)	42 (54.5)	12 (15.6)	2.84 (0.69)	Necessary
K20. Laws, rules, and regulations of students' behavior	0 (0.0)	2 (2.6)	29 (37.7)	46 (59.7)	3.57 (0.55)	Extremely
K21. Teacher attitudes/behaviors that affect students	0 (0.0)	6 (7.8)	31 (40.3)	40 (51.9)	3.44 (0.64)	Necessary
K22. Strategies for crisis prevention/intervention	0 (0.0)	5 (6.5)	37 (48.1)	35 (45.5)	3.39 (0.61)	Necessary

[Table Continued]

Table 7 (Continued)
Frequency and Mean Scores of Principals' Responses Regarding the Knowledge and Skills Necessary in Special Education (N=77)

Survey Items	Frequency (Percent)				Mean (SD)	Degree of Need
	Not at all 1 (%)	Some-what 2 (%)	Neces-sary 3 (%)	Extremely 4 (%)	M (SD)	Degree of Need
K23. Preparing students to live independent	1 (1.3)	15 (19.5)	39 (50.6)	22 (28.6)	3.06 (0.73)	Necessary
K24. Dealing with concerns of parents	0 (0.0)	6 (7.8)	51 (66.2)	20 (26.0)	3.19 (0.56)	Necessary
K25. Role of all involved in planning IEP	0 (0.0)	4 (5.2)	46 (59.7)	27 (35.1)	3.30 (0.56)	Necessary
K26. Ethical/confidential communication	0 (0.0)	4 (5.2)	27 (35.1)	46 (59.7)	3.54 (0.60)	Extremely
K27. One's own biases that affect attitudes	2 (2.6)	13 (16.9)	45 (58.4)	17 (22.1)	3.00 (0.70)	Necessary
Principals should be able to:						
S1. Articulate philosophy of sp ed/ gen ed	0 (0.0)	5 (6.5)	48 (62.3)	24 (31.2)	3.25 (0.57)	Necessary
S2. Construct activities with laws/regs	1 (1.3)	10 (13.0)	42 (54.5)	24 (31.2)	3.16 (0.69)	Necessary
S3. Interpret assessment for instruction	3 (3.9)	18 (23.4)	44 (57.1)	12 (15.6)	2.84 (0.73)	Necessary
S4. Use variety of behav mgt techniques	0 (0.0)	11 (14.3)	45 (58.4)	21 (27.3)	3.13 (0.64)	Necessary
S5. Use least restrictive placement/intervention	0 (0.0)	5 (6.5)	36 (46.8)	36 (46.8)	3.40 (0.61)	Necessary
S6. Collaborate with complete team	0 (0.0)	3 (3.9)	34 (44.2)	40 (51.3)	3.48 (0.58)	Necessary
S7. Commitment to education/quality of life	0 (0.0)	3 (3.1)	27 (35.1)	47 (61.0)	3.57 (0.57)	Extremely
S8. Model appropriate behavior toward students	0 (0.0)	1 (1.3)	12 (15.6)	64 (83.1)	3.82 (0.42)	Extremely

Note: Mean scores 1.00-1.50= Not at All Necessary; 1.51-2.50 = Somewhat Necessary; 2.51-3.49 = Necessary; 3.50-4.00 = Extremely Necessary

One open-ended question asked principals what professional training, if any, they believe is necessary to enhance their skills in effectively implementing programs for students with disabilities within their schools. Table 8 identifies the most frequently recurring responses of principals to this question.

Training mentioned by principals which supported responses on the Likert-type items pertained to special education policies and procedures, legal issues and identification and characteristics of students with disabilities. Although infrequently, viewing successful programs and/or participating in special education field experiences, and being able to modify/adapt the curriculum for instruction was also mentioned. There were two main distinctions between principals' responses on the open-ended questions and on the survey items. Although principals scored knowledge concerning assessment and behavior management issues high on the list of Likert-type items, these training needs were rarely mentioned in the open-ended questions.

Table 8
Professional Training Needs that Principals Believe Are Necessary to Effectively Implement Special Education Programs (N=62)

Professional Training Needs	Frequency
Updates on Policies and Procedures/Laws	11
Identification and characteristics issues	6
Field Experiences, View Successful Programs	6
Missing/No Response	39

Special Education Teachers' Perceptions of the
Knowledge and Skills Principals Need in Special Education

The data presented in this section are organized around research question two:

> What skills and knowledge identified in standards from the CEC Common Core of Knowledge and Skills Essential for All Beginning Special Education Teachers do elementary special education teachers believe are necessary for principals to effectively implement special education programs?

Quantitative data from survey items in the form of Likert-type scores and qualitative data from open-ended questions were analyzed to answer question two. Table 9 presents frequency counts and mean responses regarding the knowledge and skills special education teachers believe are necessary for principals in the area of special education.

On the average, special education teachers did not indicate that any knowledge and skills items were "not at all necessary". They reported it "necessary" that principals understand the legal issues of assessment (K10, $\underline{M}$=3.49), but perceived it only "somewhat necessary" that principals be able to interpret assessment for instruction (S3, $\underline{M}$= 2.29). It is worthwhile to note that, although several items (K12, K15, K18, and K19) fell into the range of "necessary" by the criteria set, these items were reported by 40% or more of the special education teacher respondents to be either "not at all" or "somewhat" necessary. Specifically, these items related to a knowledge of (1) the application and interpretation of test scores, (2) differing learning styles of students with disabilities and how to adapt teaching to these styles, (3) research and best practice for effective management of teaching and learning, and (4) ways in which technology can assist in teaching and learning.

Table 9

Frequency and Mean Scores of Special Education Teachers' Responses Regarding the Knowledge and Skills Necessary for Principals in Special Education (N=85)

Survey Items	Frequency (Percent)				Mean (SD)	Degree of Need
Principals should know:	Not at all 1 (%)	Some-what 2 (%)	Neces-sary 3 (%)	Extremely 4 (%)	M (SD)	Degree of Need
K1. Models, theories, and philosophies sped	5 (5.9)	25 (29.4)	37 (43.5)	18 (21.2)	2.80 (0.84)	Necessary
K2. Definition and identification issues	1 (1.2)	12 (14.1)	34 (40.0)	38 (44.7)	3.28 (0.75)	Necessary
K3. Due process rights assessment/placement	0 (0.0)	3 (3.5)	20 (23.5)	62 (72.9)	3.69 (0.54)	Extremely
K4. Rights and responsibilities of team	0 (0.0)	2 (2.4)	15 (17.6)	68 (80.0)	3.78 (0.47)	Extremely
K5. Typical and exceptional learners	1 (4.7)	16 (18.8)	44 (51.8)	21 (24.7)	2.96 (0.79)	Necessary
K6. Cultural /environment effect on families	3 (3.5)	18 (21.2)	48 (56.5)	16 (18.8)	2.91 (0.73)	Necessary
K7. Effects of medications	3 (3.5)	18 (21.2)	38 (44.7)	26 (30.6)	3.02 (0.82)	Necessary
K8. Basic terminology used in assessment	2 (2.4)	20 (23.5)	44 (51.8)	19 (22.4)	2.94 (0.75)	Necessary
K9. Ethical concerns related to assessment	0 (0.0)	21 (24.7)	45 (52.9)	19 (22.4)	2.98 (0.69)	Necessary
K10. Legalities and guidelines of assessment	1 (1.2)	7 (8.2)	26 (30.6)	51 (60.0)	3.49 (0.70)	Necessary
K11. Screening,prereferral, referral, classification	1 (1.2)	15 (17.6)	43 (50.6)	26 (30.6)	3.11 (0.72)	Necessary
K12. Application/interpretation of test scores	4 (4.7)	30 (35.3)	34 (40.0)	17 (20.0)	2.75 (0.83)	Smwht/Nec
K13. Relationship betwn assessment /placement	0 (0.0)	12 (14.1)	50 (58.8)	23 (27.1)	3.13 (0.63)	Necessary
K14. Methods of monitoring student progress	4 (4.7)	28 (32.9)	41 (48.2)	12 (14.1)	2.71 (0.77)	Necessary
K15. Adapt learning styles to teaching styles	3 (3.5)	31 (36.5)	28 (32.9)	23 (27.1)	2.83 (0.87)	Smwht/Nec
K16. Life skills instruction	5 (5.9)	23 (27.1)	39 (45.9)	18 (21.2)	2.81 (0.87)	Necessary
K17. Classroom management theories /methods	2 (2.4)	25 (29.4)	40 (47.1)	18 (21.2)	2.88 (0.77)	Necessary
K18. Best practice in teaching/learning	2 (2.4)	32 (37.6)	39 (45.9)	12 (14.1)	2.72 (0.73)	Smwht/Nec
K19. How technology can assist in teaching/learning	1 (1.2)	37 (43.5)	36 (42.4)	11 (12.9)	2.67 (0.71)	Smwht/Nec
K20. Laws, rules, and regulations of students' behavior	0 (0.0)	3 (3.5)	33 (38.8)	49 (57.6)	3.54 (0.57)	Extremely
K21. Teacher attitudes/behaviors that affect students	1 (1.2)	6 (7.1)	34 (40.0)	44 (51.8)	3.42 (0.68)	Necessary
K22. Strategies for crisis prevention/intervention	0 (0.0)	9 (10.6)	36 (42.4)	40 (47.1)	3.36 (0.67)	Necessary

[Table Continued]

Table 9 (Continued)
Frequency and Mean Scores of Special Education Teachers' Responses Regarding the Knowledge and Skills Necessary for Principals in Special Education (N=85)

Survey Items	Frequency (Percent)				Mean (SD)	Degree of Need
	Not at all 1 (%)	Some-what 2 (%)	Neces-sary 3 (%)	Extremely 4 (%)	M (SD)	Degree of Need
K23. Preparing students to live independent	4 (4.7)	28 (32.9)	43 (50.6)	10 (11.8)	2.69 (0.74)	Necessary
K24. Dealing with concerns of parents	0 (0.0)	10 (11.8)	46 (54.1)	29 (34.1)	3.22 (0.64)	Necessary
K25. Role of all involved in planning IEP	1 (1.2)	11 (12.9)	43 (50.6)	30 (35.3)	3.20 (0.70)	Necessary
K26. Ethical/confidential communication	1 (1.2)	8 (9.4)	29 (34.1)	47 (55.3)	3.42 (0.76)	Necessary
K27. One's own biases that affect attitudes	1 (1.2)	20 (23.5)	37 (43.5)	27 (31.8)	3.06 (0.78)	Necessary
Principals should be able to:						
S1. Articulate philosophy of sp ed/ gen ed	3 (3.5)	12 (14.1)	41 (48.2)	29 (34.1)	3.13 (0.78)	Necessary
S2. Construct activities with laws/regs	1 (1.2)	25 (29.4)	23 (27.1)	36 (42.4)	3.11 (0.87)	Necessary
S3. Interpret assessment for instruction	12 (14.1)	42 (49.4)	25 (29.4)	6 (7.1)	2.29 (0.79)	Somewhat
S4. Use variety of behav mgt techniques	2 (2.4)	23 (27.1)	37 (43.5)	23 (27.1)	2.95 (0.80)	Necessary
S5. Use least restrictive placement/intervention	1 (1.2)	15 (17.6)	28 (32.9)	41 (48.2)	3.28 (0.80)	Necessary
S6. Collaborate with complete team	1 (1.2)	11 (12.9)	34 (40.0)	39 (45.9)	3.30 (0.74)	Necessary
S7. Commitment to education/quality of life	0 (0.0)	1 (1.2)	16 (18.8)	68 (80.0)	3.79 (0.44)	Extremely
S8. Model appropriate behavior toward students	0 (0.0)	2 (2.4)	9 (10.6)	74 (87.1)	3.85 (0.42)	Extremely

Note: Mean scores 1.00-1.50= Not at All Necessary; 1.51-2.50 = Somewhat Necessary; 2.51-3.49 = Necessary; 3.50-4.00 = Extremely Necessary
*Somewhat to Necessary (Smwht/Nec) is designated when combined percentages for Not at All and Somewhat are ≥40% , and M >2.50.

Special education teachers' mean response scores on 20 of the 35 (57%) were M= 3.00 or above. Five knowledge and skills items were reported to be "extremely necessary" by special education teachers. These items were (1) the rights and responsibilities of parents, students and staff regarding special education (K4, M=3.78), (2) due process rights of assessment and placement (K3, M= 3.69), and (3) the laws and regulations concerning student behavior (K20, M=3.54). Special education teachers also indicated it "extremely necessary" that principals model appropriate behavior toward students (S8, M=3.85) and demonstrate a commitment to the highest educational and quality of life potential for all students (S7, M=3.79).

One open-ended question asked special education teachers what professional training, if any, they believe is necessary for principals to enhance their skills in effectively implementing programs for students with disabilities within their schools. Table 10 displays the most frequently recurring responses of special education teachers to this question.

Table 10
Professional Training Special Education Teachers Believe is Necessary for Principals to Effectively Implement Special Education Programs (N=71)

Professional Training Needs	Frequency
Policies and procedures/legal issues	32
Identification and characteristics of students	9
Experience with students with disabilities	8
Dealing with parent	6
Empathy/compassion/understanding	6
Missing/No Response	10

Policies, procedures, and legal issues were mentioned most often.

Although the response rate on subsequent items appears insignificant, it may be noteworthy to point out that special education teachers qualitative comments supported the quantitative data concerning principals' need for information on the identification and characteristics of students with disabilities. Several also agreed with principal respondents that actual experience in special education is beneficial. One teacher stated:

> Clearly, principals need training in legal issues of disabilities. However, the main thing that makes the greatest difference is personal experience, positive or negative, with those who have disabilities.

Special education teachers also mentioned that principals need to have specialized training in dealing with parents of students with disabilities.

> One statement indicative of several was:
>
> Major training should be in what the parents' rights are and what parents' major concerns are.

Special education teachers also suggested that cultivating an understanding and sympathetic attitude for students with disabilities overshadowed any training needs principals may have. Two teachers reflected:

> ...training is secondary to having intelligent people who care first about kids
>
> All the training in the world will not help if they do not have compassion for the special education students.

<u>General Education Teachers' Perceptions of the Knowledge and Skills Principals Need in Special Education</u>

Responses of general education teachers to special education knowledge and skills necessary for principals was addressed in research question three:

> What skills and knowledge identified in standards from the CEC

Common Core of Knowledge and Skills Essential for All Beginning Special Education Teachers do elementary general education teachers believe are necessary for principals to effectively implement special education programs?

Table 11 presents frequency counts and mean scores related to this question.

General education teachers' mean response scores on 34 of the 35 (97%) knowledge and skills items were 3.00 or above. On the average, they did not indicate any items to be "not at all necessary" or "somewhat necessary". Items perceived to be "extremely necessary" by general education teachers related to a knowledge of (1) due process rights of assessment and placement (K3, M=3.77), (2) rights and responsibilities of parents, students, and staff regarding special education (K4, M=3.77), (3) legalities and guidelines of assessment (K10, M=3.70), (4) laws and regulations regarding student behavior (K20, M=3.68), (5) the role of all involved in planning the IEP (K25, M=3.67), and (6) ethics related to confidential communication (K26, M= 3.55). General education teachers also indicated it "extremely necessary" that principals be able to (1) use collaboration strategies in working with students, parents, the school, and community personnel (S6, M=3.59), (2) demonstrate a commitment to developing the highest educational and quality of life potential for all students (S7, M= 3.75), and (3) model appropriate behavior for student and teachers toward individuals with disabilities (S8, M= 3.76).

Summary of Principals' and Teachers' Responses on the KSSE

Principals, special education teachers, and general education teachers responded to 39 knowledge and skills items and indicated the degree to which they perceive each is necessary for principals to effectively implement special education programs. None of the respondent groups' average mean scores on knowledge and skills items fell within the "not at all necessary". Only one

Table 11

Frequency and Mean Scores of General Education Teachers' Responses Regarding the Knowledge and Skills Necessary for Principals in Special Education (N=71)

Survey Items	Frequency (Percent)				Mean (SD)	Degree of Need
Principals should know:	Not at all 1 (%)	Some-what 2 (%)	Neces-sary 3 (%)	Extremely 4 (%)	M (SD)	Degree of Need
K1. Models, theories, and philosophies sped	1 (1.4)	7 (9.9)	35 (49.3)	28 (39.4)	3.27 (0.70)	Necessary
K2. Definition and identification issues	0 (0.0)	2 (2.8)	32 (45.1)	37 (52.1)	3.49 (0.56)	Necessary
K3. Due process rights assessment/placement	0 (0.0)	1 (1.4)	14 (19.7)	56 (78.9)	3.77 (0.45)	Extremely
K4. Rights and responsibilities of team	0 (0.0)	0 (0.0)	16 (22.5)	55 (77.5)	3.77 (0.42)	Extremely
K5. Typical and exceptional learners	0 (0.0)	8 (11.3)	40 (56.3)	23 (32.4)	3.21 (0.63)	Necessary
K6. Cultural /environment effect on families	0 (0.0)	12 (16.9)	40 (56.3)	19 (26.8)	3.10 (0.66)	Necessary
K7. Effects of medications	1 (1.4)	11 (15.5)	24 (33.8)	35 (49.3)	3.31 (0.79)	Necessary
K8. Basic terminology used in assessment	0 (0.0)	7 (9.9)	36 (50.7)	28 (39.4)	3.30 (0.64)	Necessary
K9. Ethical concerns related to assessment	0 (0.0)	9 (12.7)	30 (42.3)	32 (45.1)	3.32 (0.69)	Necessary
K10. Legalities and guidelines of assessment	0 (0.0)	3 (4.2)	15 (21.1)	53 (74.6)	3.70 (0.54)	Extremely
K11. Screening,prereferral, referral, classification	2 (2.8)	5 (7.0)	32 (45.1)	32 (45.1)	3.32 (0.73)	Necessary
K12. Application/interpretation of test scores	1 (1.4)	9 (12.7)	35 (49.3)	26 (36.6)	3.21 (0.72)	Necessary
K13. Relationship betwn assessment /placement	1 (1.4)	7 (9.9)	35 (49.3)	28 (39.4)	3.27 (0.70)	Necessary
K14. Methods of monitoring student progress	0 (0.0)	12 (16.9)	41 (57.7)	18 (25.4)	3.08 (0.65)	Necessary
K15. Adapt learning styles to teaching styles	0 (0.0)	17 (23.9)	29 (40.8)	25 (35.2)	3.11 (0.77)	Necessary
K16. Life skills instruction	2 (2.8)	13 (18.3)	35 (49.3)	21 (29.6)	3.06 (0.77)	Necessary
K17. Classroom management theories /methods	0 (0.0)	20 (28.2)	29 (40.8)	22 (31.0)	3.03 (0.77)	Necessary
K18. Best practice in teaching/learning	0 (0.0)	19 (26.8)	30 (42.3)	22 (31.0)	3.04 (0.76)	Necessary
K19. How technology can assist in teaching/learning	0 (0.0)	15 (21.1)	35 (49.3)	21 (29.6)	3.08 (0.71)	Necessary
K20. Laws, rules, and regulations of students' behavior	0 (0.0)	3 (4.2)	17 (23.9)	51 (71.8)	3.68 (0.55)	Extremely
K21. Teacher attitudes/behaviors that affect students	1 (1.4)	6 (8.5)	30 (42.3)	34 (47.9)	3.37 (0.70)	Necessary
K22. Strategies for crisis prevention/intervention	1 (1.4)	4 (5.6)	29 (40.8)	37 (52.1)	3.44 (0.67)	Necessary

[Table Continued]

Table 11 (Continued)
Frequency and Mean Scores of General Education Teachers' Responses Regarding the Knowledge and Skills Necessary for Principals in Special Education (N=71)

Survey Items	Frequency (Percent)				Mean (SD)	Degree of Need
	Not at all 1 (%)	Some-what 2 (%)	Neces-sary 3 (%)	Extremely 4 (%)	M (SD)	Degree of Need
K23. Preparing students to live independent	1 (1.4)	18 (25.4)	33 (46.5)	19 (26.8)	2.99 (0.77)	Necessary
K24. Dealing with concerns of parents	0 (0.0)	9 (12.7)	34 (47.9)	28 (39.4)	3.27 (0.68)	Necessary
K25. Role of all involved in planning IEP	0 (0.0)	7 (9.9)	31 (43.7)	33 (46.5)	3.67 (0.66)	Extremely
K26. Ethical/confidential communication	0 (0.0)	6 (8.5)	20 (28.2)	45 (63.4)	3.55 (0.65)	Extremely
K27. One's own biases that affect attitudes	2 (2.8)	13 (18.3)	32 (45.1)	24 (33.8)	3.10 (0.80)	Necessary
Principals should be able to:						
S1. Articulate philosophy of sp ed/ gen ed	1 (1.4)	9 (12.7)	28 (39.4)	33 (46.5)	3.31 (0.75)	Necessary
S2. Construct activities with laws/regs	0 (0.0)	13 (18.3)	25 (35.2)	33 (46.5)	3.28 (0.75)	Necessary
S3. Interpret assessment for instruction	1 (1.4)	14 (19.7)	40 (56.3)	16 (22.5)	3.00 (0.70)	Necessary
S4. Use variety of behav mgt techniques	2 (2.8)	7 (9.9)	39 (54.9)	23 (32.4)	3.31 (0.75)	Necessary
S5. Use least restrictive placement/intervention	1 (1.4)	6 (8.5)	22 (31.0)	42 (59.2)	3.48 (0.71)	Necessary
S6. Collaborate with complete team	0 (0.0)	2 (2.8)	25 (35.2)	44 (62.0)	3.59 (0.55)	Extremely
S7. Commitment to education/quality of life	0 (0.0)	3 (4.2)	12 (16.9)	56 (78.9)	3.75 (0.53)	Extremely
S8. Model appropriate behavior toward students	0 (0.0)	2 (2.8)	13 (18.3)	56 (78.9)	3.76 (0.49)	Extremely

Note: Mean scores 1.00-1.50= Not at All Necessary; 1.51-2.50 = Somewhat Necessary; 2.51-3.49 = Necessary; 3.50-4.00 = Extremely Necessary

item, which related to the principals' ability to interpret assessment for instruction, was considered by special education teachers to be "somewhat necessary". The majority of knowledge and skills items were reported by all respondents to be either "necessary" or "extremely necessary".

Differences in Perceptions Among Principals and Teachers

Research question four addressed the differences in perceptions among groups according to job type:

> What differences, if any, exist among the responses of elementary school principals, general education teachers, and special education teachers regarding their perceptions of the knowledge and skills necessary for principals to effectively implement special education programs?

Exploratory analysis was employed to answer research question four. Mean responses on items and comparisons among groups are reported in Table 12. The knowledge and skills items listed received mean scores of 3.00 or above by all three educator groups, as indicated from data generated in the KSSE.

(K2) Issues in definition and identification procedures for students with disabilities
(K3) Due process rights related to assessment, eligibility and placement
(K4) Rights and responsibilities of parents, students, teachers, and schools as they relate to special education
(K7) Effects of various medications on the educational, cognitive, physical, social, and emotional behavior of students with disabilities
(K10) Legal regulations, provisions, and guidelines regarding student assessment
(K11) Typical procedures used for screening, prereferral, referral, and classification
(K13) The relationship between assessment and placement decisions
(K20) Applicable laws, rules, and regulations, and procedural safeguards regarding the management of special students' behaviors
(K21) Teacher attitudes and behaviors that positively or negatively influence student behaviors
(K22) Strategies for crisis prevention/intervention
(K24) Typical concerns of parents of students with disabilities and appropriate strategies to help parents deal with these concerns
(K25) Roles of students, parents, teachers, and other school and community personnel in planning a student's individualized educational plan
(K26) Ethical practices for confidential communication to others about students with disabilities
(K27) One's own cultural biases and differences that affect one's attitude toward students with disabilities

Table 12
Mean Scores with Standard Deviations of Respondents' Perceptions Regarding the Knowledge and Skill Principals Need in Special Education According to Job Type

Survey Items	Respondents' Perceptions			Significant Comparisons*		
	Principal N=77 Mean (SD)	SpEd Teacher N= 85 Mean (SD)	Gen Ed Teacher N= 71 Mean (SD)	Principal SpEd	Principal Gen Ed	SpEd Gen Ed
Principals should be knowledgeable of:						
K1. Models, theories, philosophies of sped	2.92 (0.66)	2.80 (0.84)	3.27 (0.70)		*	*
K2. Definition/identification issues	3.38 (0.63)	3.28 (0.75)	3.49 (0.56)			
K3. Due process of assessment/placement	3.68 (0.52)	3.69 (0.54)	3.77 (0.45)			
K4. Rights and responsibilities team	3.79 (0.41)	3.78 (0.47)	3.77 (0.42)			
K5. Typical and exceptional learners	3.10 (0.64)	2.96 (0.79)	3.21 (0.63)			
K6. Cultural/environment effect on families	2.96 (0.64)	2.91 (0.73)	3.10 (0.66)			
K7. Effects of medications	3.13 (0.73)	3.02 (0.82)	3.31 (0.79)			
K8. Terminology used in assessment	3.32 (0.50)	2.94 (0.75)	3.30 (0.64)	*		*
K9. Ethical concerns related to assessment	3.25 (0.64)	2.98 (0.69)	3.32 (0.69)	*		*
K10. Legalities/guidelines of assessment	3.64 (0.56)	3.49 (0.70)	3.70 (0.54)			
K11. Screening, referral, classification	3.36 (0.51)	3.11 (0.72)	3.32 (0.73)	*		
K12. Application/interpretation of test scores	3.05 (0.60)	2.75 (0.83)	3.21 (0.72)	*		*

[Table Continued]

Table 12 (Continued)
Mean Scores with Standard Deviations of Respondents' Perceptions Regarding the Knowledge and Skill Principals Need in Special Education According to Job Type (Continued)

Survey Items	Respondents' Perceptions			Significant Comparisons*		
	Principal N=77 Mean (SD)	SpEd Teacher N=85 Mean (SD)	Gen Ed Teacher N=71 Mean (SD)	Principal to SpEd	Principal to Gen Ed	SpEd to Gen Ed
K13. Relationship assessment/placement	3.16 (0.54)	3.13 (0.63)	3.27 (0.70)			
K14. Monitoring student progress	3.04 (0.57)	2.71 (0.77)	3.08 (0.65)	*		*
K15. Adapt learning styles to teaching styles	3.14 (0.62)	2.83 (0.87)	3.11 (0.77)	*		
K16. Life skills instruction	2.91 (0.69)	2.81 (0.87)	3.06 (0.77)			
K17. Classroom management theories /methods	3.18 (0.60)	2.88 (0.77)	3.03 (0.77)	*		
K18. Best practice in teaching/learning	2.99 (0.68)	2.72 (0.73)	3.04 (0.76)	*		*
K19. Technology in teaching/learning	2.84 (0.69)	2.67 (0.71)	3.08 (0.71)			
K20. Laws, rules/regulations of student behavior	3.57 (0.55)	3.54 (0.57)	3.68 (0.55)			
K21. Teacher attitudes/behaviors affect students	3.44 (0.64)	3.42 (0.68)	3.37 (0.70)			
K22. Crisis prevention/intervention	3.39 (0.61)	3.36 (0.67)	3.44 (0.67)			
K23. Strategies for independent living	3.06 (0.73)	2.69 (0.74)	2.99 (0.77)	*		*
K24. Dealing with concerns of parents	3.19 (0.56)	3.22 (0.64)	3.27 (0.68)			
K25. Role of all involved in planning IEP	3.30 (0.56)	3.20 (0.70)	3.67 (0.66)			

[Table Continued]

Table 12 (Continued)
Mean Scores with Standard Deviations of Respondents' Perceptions Regarding the Knowledge and Skill Principals Need in Special Education According to Job Type

Survey Items	Respondents' Perception			Significant Comparisons*		
	Principal N=77 Mean (SD)	SpEd Teacher N= 85 Mean (SD)	Gen Ed Teacher N= 71 Mean (SD)	Principal to SpEd	Principal to Gen Ed	SpEd to Gen Ed
K26. Ethical/confidential communication	3.54 (0.60)	3.42 (0.76)	3.55 (0.65)			
K27. One's own biases that affect attitudes	3.00 (0.70)	3.06 (0.78)	3.10 (0.80)			
Principals should be able to:						
S1. Articulate philosophy of sp ed/ gen ed	3.25 (0.57)	3.13 (0.78)	3.31 (0.75)			
S2. Construct activities with laws/regs	3.16 (0.69)	3.11 (0.87)	3.28 (0.76)			
S3. Interpret assessment for instruction	2.84 (0.73)	2.29 (0.79)	3.00 (0.70)	*		*
S4. Use variety of behav mgt techniques	3.13 (0.64)	2.95 (0.80)	3.17 (0.72)			
S5. Use least restrictive placement/intervention	3.40 (0.61)	3.28 (0.80)	3.48 (0.71)			
S6. Collaboration with complete team	3.48 (0.58)	3.30 (0.74)	3.59 (0.55)			*
S7. Commit to highest education/quality of life	3.57 (0.57)	3.79 (0.44)	3.75 (0.53)	*		
S8. Model appropriate behavior toward students	3.82 (0.42)	3.85 (0.42)	3.76 (0.49)			

Note: Means closer to 1=not at all necessary, 2=somewhat necessary, 3= necessary, 4= extremely necessary;
*Significant at 0.05 level

(S1) Articulate a personal philosophy of special education, including its relationship to/with general education
(S2) Construct instruction and other professional activities consistent with the requirements of special education law, rules, and regulations
(S5) Implement the least restrictive placement/intervention consistent with the needs of the student
(S6) Use collaborative strategies in working with students, parents, and community
(S7) Demonstrate commitment to developing the highest educational quality of life potential
(S8) Model appropriate behavior for students and teachers toward individuals with disabilities

Of the twenty essential knowledge and skills items identified, perceptions regarding the necessity of three were found to differ significantly when compared among job types. These items related to (1) procedures for screening, prereferral, referral, and classification (K11); (2) collaboration with students, parents, and community (S6), and (3) a commitment to developing the highest education and quality of life potential for all students (S7). Differences on items occurred most often between principals and special education teachers or between general education and special education teachers.

Demographic Variables which Influence Respondent's Perceptions

Although it was important to examine survey items individually when determining specific knowledge and skills necessary for principals to effectively implement special education programs, it became necessary to reduce the data set in order to more efficiently explore other independent variables which might account for differences in responses.

Principal components factor analysis with promax rotation was performed on the 27 knowledge items. Table 13 reports loadings of the knowledge items. The level of loading used as a cutoff for variables was <.40. From the five factors extracted, four items (K2, K22, K24, and K25) were excluded because, conceptually, they were not related to the other items with which they loaded. All factors accepted were internally consistent and well

Table 13

Factor Loadings for Principal Factors Extraction with Promax Rotation on Knowledge Items of KSSE

Item	Factor 1 (I/M)	Factor 2 (E)	Factor 3 (A)	Factor 4 (T/P)	Factor 5 (L)
Classroom mgt issues (K17)	0.81	0.00	0.01	-0.03	0.10
Mgt of teaching/learning (K18)	0.81	0.00	0.01	-0.02	0.14
Technology in teaching (K19)	0.72	-0.03	0.03	0.02	0.02
Different learning styles (K15)	0.71	-0.08	0.10	0.12	-0.12
Monitoring student progress (K14)	0.57	0.01	0.28	0.04	-0.10
Teacher attitudes /student behavior (K21)	0.51	0.30	-0.28	-0.12	0.28
Life skills instruction (K16)	0.50	-0.03	0.00	0.39	-0.05
Multicultural skills (K23)	0.40	0.20	0.05	0.34	-0.24
Cultural biases/attitudes (K27)	-0.13	0.74	-0.15	0.33	-0.12
Confidential communication (K26)	-0.13	0.72	0.17	-0.03	-0.05
Roles of all involved in IEP (K25)	0.19	0.62	0.27	-0.16	-0.07
Concerns of parents (K24)	0.17	0.60	-0.06	0.15	-0.03
Crisis prevention/intervention (K22)	0.18	0.50	-0.17	0.09	0.25
Ethics related to assessment (K9)	-0.13	0.44	0.39	0.07	0.13
Screening, referral, classification (K11)	0.06	0.05	0.74	-0.03	0.08
Terminology for assessment (K8)	-0.09	0.07	0.72	0.03	0.08
Application/interpretation scores (K12)	0.28	-0.13	0.69	0.04	-0.12
Assessment/placement (K13)	0.18	0.05	0.68	0.02	0.03
Effects of child's culture (K6)	0.08	0.15	-0.01	0.71	0.06
Models/theories of sped (K1)	0.03	0.11	-0.06	0.69	0.00
Cognitive/physical/social needs (K5)	0.08	-0.00	0.06	0.66	0.11
Effects of medications (K7)	0.07	-0.02	0.11	0.58	0.06
Due process rights/assessment (K3)	0.02	-0.12	0.03	0.11	0.86
Rights/responsibilities of team (K4)	0.04	-0.03	-0.02	0.02	0.84
Legalities of assessment (K10)	-0.12	0.24	0.30	0.01	0.55
Laws/rules of discipline (K20)	0.06	0.42	0.15	-0.16	0.42
Definition/identification issues (K2)	-0.01	-0.18	0.30	0.43	0.40

Factor labels: I/M= Instruction/Management; E= Ethics; A= Assessment; T/P= Theoretical/ Philosophical Issues; L= Legal issues
Factor loadings of 0.4 or greater are underlined

defined by the variables. The construct underlying the five factors accepted were defined as (1) instruction and management, (2) ethics, (3) assessment,

(4) theoretical and philosophical issues, and (5) legal issues.

Although factor analysis was not conducted on the skills items, these variables were conceptually related and Cronbach's Coefficient Alpha was used to test their reliability. Table 14 reports Cronbach's Coefficients of knowledge factors and skills items on the KSSE.

Table 14
Reliability of KSSE

Factors	Cronbach Coefficient
Instruction/Management	.87
Ethics	.62
Assessment	.80
Theoretical/Philosophical Issues	.77
Legal Issues	.80
Skills	.77

Once factors were extracted, analysis of variance (ANOVA) was used to examine individual principal and teacher demographic data (such as community population, teaching assignment, degree(s) earned, gender, and prior experience in special education) as independent variables, in an attempt to explore differences in dependent variables. When significant differences were found, post hoc analysis was conducted to evaluate the results of the ANOVA.

The ANOVA found no significant differences relating to the variables community population, gender or the special education teachers' assignments. Although variable groups of principals with prior special education experience (N=13) and without prior special education teaching experience (N=64) were not evenly matched, when these variables were

compared with responses on items, a significant difference was noted on factors relating to instruction and management M= 3.02 vs 3.32, F (63, 12) = 2.05, p <.05 and skills M=3.29 vs 3.53, F (63, 12) = 1.61, p < .05. Principals with special education experience indicated that knowledge of factors relating to instruction and management and skills were more necessary than did those without prior special education experience.

The most significant differences were found when the degree of general education teachers' classroom experience in special education was compared with mean responses on knowledge and skills factors. General education teachers described their own personal experience regarding students with disabilities as: (1) never having a student with disabilities in their classroom, (2) having a little experience working with students with disabilities, (3) often having students with mild to moderate disabilities only, or (4) having worked with a wide variety of students categorized both mild to moderate and severe to profound.

None of the general education teachers reported "no experience". The means of teachers reporting "a little", "often with mild to moderate only", and "a wide variety of students categorized both mild/moderate and severe/ profound"were compared by use of ANOVA. Statistically significant differences were found at the .05 level on factors relating to ethics, assessment, legal issues and skills. Post hoc analysis (Ryan-Einot-Gabriel-Welsch Multiple Range Test) was conducted to evaluate the results of ANOVA. The greatest differences occurred between teachers who had "a little" experience and those who had " a variety of experiences with students categorized both mild/moderate and severe/profound". Table 15 presents data which reports these differences.

To expand on data regarding the knowledge and skills necessary for

Table 15

Post Hoc Comparisons of General Education Teachers' in Classroom Experience with Factors from the KSSE

Factors	Teachers' Degree of in Classroom Experience								
	Little Expereince		Mild/Moderate Only		Wide Variety				
	N	Mean	N	Mean	N	Mean	Significant Comparisons*		
							L/MM	L/WV	MM/WV
Instruction/Management	8	2.84	35	3.06	28	3.21			
Ethics	8	2.79	35	3.30	28	3.51		*	
Assessment	8	3.09	35	3.14	28	3.49			*
Theoritical/Philosophical	8	3.09	35	3.14	28	3.36			
Legal Issues	8	3.34	35	3.78	28	3.79	*	*	
Skills	8	2.94	35	3.46	28	3.50	*	*	

Note: *Comparisons significant at p<.05 level
L/MM= Little Experience to Mild/Moderate Only; L/WV= Litte to Wide Variety; MM/WV= Mild to Moderate to Wide Variety

principals to implement special education programs, participants were given an open-ended question relating to staff development needs for their schools:

> What staff development activities, if any, do you believe are necessary to improve your school's effectiveness in providing educational programs which include students with disabilities?

Table 16 summarizes training needs which emerged in data gathered from all three respondent groups in response to this question.

Table 16
Staff Development Activities Necessary to Improve Programs for Students with Disabilities (N= 185)

Factors	Frequency
Modifications/Adaptations of curriculum/instruction	31
Identification/characteristics of specific disabilities	24
Team planning and collaboration	12
Integrated practices	8
Behavior management	7
Roles/responsibility of staff	7
Missing/no response	96

Responses from open-ended questions comparable to data from Likert-type items regarding knowledge and skills necessary for principals in special education related to issues involving student definition and identification. This item was also mentioned frequently as a training need for principals (Tables 8 and 10). Although data collected regarding knowledge of guidelines for the behavior management of students with disabilities and understanding the roles of all individuals involved in planning student individualized educational programs appears insignificant, it does support earlier

quantitative findings (Tables 7, 9, and 11).

Many respondents also stressed that principals participate in staff development activities:

> ...Principals should attend the same inservice as special education teachers and should do at least four weeks of teaching in a special education class before becoming a principal.
>
> ...Principals benefit from attending workshops on methods for teaching so that they understand what the teachers is doing in her classroom as well as being able to assist and/or supervise.

Team planning/collaboration was a skill principals and teachers alike scored within the "necessary" or "extremely necessary" range. However, significant differences were found on items related to teaming when mean responses were compared individually among groups (Table 12). The open-ended responses clearly supported the need for teaming/collaboration skills training by indicating that, at least for twelve participants, collaborative teaming was considered a necessary training need for principals and staff:

> We need workshops pairing special education teachers with regular classroom teachers, each helping to adapt materials in a collaborative manner.
>
> Seminars for regular education and special education teachers to improve collaboration.
>
> Principals should encourage teaming and teachers need to be trained in it.

Summary of the Knowledge and Skills Principals Need in Special Education

The previous sections of Chapter IV answered the first four research questions. Each of these questions related to the knowledge and skills

necessary for principals to effectively implement special education programs. First, responses of the entire participant group were presented using univariate analysis. Then individual principal and teacher groups were analyzed in order to explore differences among groups and determine a consensus agreement on specific knowledge and skills items which are necessary for principals.

Twenty knowledge and skills items were identified as necessary for principals to implement special education programs in their schools. These items received mean scores of 3.00 or above by all three educator groups. Although principals and teachers generally agreed on knowledge and skills necessary for principals, disagreement came from special education teachers on items relating to assessment; screening, referral, and classification; and best practice in teaching and learning. No significant differences were found in participants' responses relating to demographic variables such as community population, gender, or teaching assignments. Principals with prior special education teaching experience were found to differ significantly on items relating to instruction/management and skills. The most significant differences were found when the degree of general education teachers' classroom experience in special education was compared with mean responses on knowledge and skills factors.

Programs for Students with Disabilities

The following sections of Chapter IV present and describe research question five:

> To what extent do elementary school principals, general education teachers, and special education teachers believe behaviors and attitudes which support inclusive programs for students with disabilities are evident within their schools?

The purpose of this question was to gather information regarding the perceptions of attitudes and behaviors which support inclusive programs for students with disabilities and further assess preparation needs of principals in special education. Initial analysis of this question was calculated by the use of univariate statistics and responses were reported in means and standard deviations for each participant group. Analysis of variance was employed to determine significant differences among groups.

Demographic Information on the PSD

To answer question five, participants first completed and returned the PSD. This questionnaire was designed to elicit responses regarding the evidence of attitudes and behaviors which support students with disabilities and promote inclusive practices in general education settings. The survey was mailed to all educators in each school which responded to the first questionnaire. The PSD was sent to principals, special education teachers, and general education teachers in 110 schools (N=330). Table 17 reports data regarding respondents' position, the predominate type of special education program in each building, and the categories of exceptionality of students identified by special education in each building.

A total of 185 educators responded to the PSD. Job types were evenly matched in number across the population. Principals comprised 34% of the total, special education teachers accounted for 38% of respondents, and 28% of the responding population were general education teachers. The majority of schools (81%) described their special education programs as predominately pull-out for a portion of the day. Fourteen percent of the respondents reported they fully integrated students with disabilities into general education classrooms and 5% described their special education programs as self-contained. Most (52%) of the schools served only students with mild to

moderate disabilities. However, 47% indicated they served students with both mild to moderate and severe to profound disabilities.

Table 17
Demographic Data of All Respondents on the PSD (N=185)

Demographic Item	Frequency	Percent of Responses
Specific Job Type		
Principal	62	33.5
Special Education Teacher	71	38.4
General Education Teacher	52	28.1
	185	100%
Program Types		
Self-contained special education	9	5
Pull-out programs	145	79
Fully integrated in general education	26	14
Missing	5	2
	185	100%
Categories of Exceptionalities Served in Buildings		
Only Mild to Moderate	95	51
Only Severe to Profound	2	1
Mild/Moderate and Severe/Profound	85	46
Missing	3	2
	185	100%

Differences in Respondents' Perceptions Regarding Evidence of Inclusive Practices in Programs for Students with Disabilities

A significant difference was reported among participant groups at the .05 level regarding the responsibility the principal assumes in implementing special education programs (Table 18, P4). Differences were noted on several items relating to the training of general education staff and students about special education (P9, P25, P31, and P 36). On items referring to instruction and curriculum, significant differences at the .05 level were also reported (P20, P21, P22, P23, P24, and P27). Due to the high number of comparisons, a conservative alpha value of $p < .003$ was also set to reject the null hypothesis. At the .003 level, four items were found to be statistically significant among groups. Table 18 reports these differences:

(5) There is a defined plan/process for supporting staff in implementation of education services

(15) Instruction uses age-appropriate materials for all students

(16) Instructional methods facilitate the interaction of students with and without disabilities.

(17) Student IEPs include behavior management strategies that are positive and use natural cues and consequences.

Table 18
Differences in Mean Scores of Respondents' Perceptions Regarding
Evidence of Practices in Programs for Students with Disabilities According to Job

Survey Items	Respondents' Perceptions		
	Principal N= 62 Mean (SD)	Sp Ed Teacher N= 71 Mean (SD)	Gen Ed Teacher N= 52 Mean (SD)
P1. Students included in age-appropriate gen ed class	3.83 (0.49)	3.73 (0.45)	3.65 (0.72)
P2. School building is accessible to all persons	3.69 (0.64)	3.56 (0.75)	3.63 (0.71)
P3. Students have same calendar as nondisabled peers	3.92 (0.27)	3.92 (0.28)	3.76 (0.47)*
P4. Principal responsible for implementation of sp ed	3.61 (0.66)	3.13 (0.92)	3.19 (0.79)*
P5. Definite plan for supporting staff	3.27 (0.73)	2.54 (0.90)	2.77 (1.04)**
P6. Students socialize with other students with disabiblites	2.87 (0.95)	2.77 (0.82)	2.78 (1.03)
P7. Gen ed has little knowledge of students w/ disabilities	2.52 (0.96)	2.78 (0.73)	2.90 (1.01)
P8. School reflects philosophy that every child can learn	3.80 (0.54)	3.57 (0.72)	3.58 (0.85)
P9. School supports need for staff inservice in special education	3.25 (0.89)	2.79 (0.92)	2.85 (0.87)*
P10. Sp ed and gen ed staff attend separate faculty meetings	3.38 (1.05)	3.30 (1.03)	3.25 (1.03)
P11. Sp ed staff participate in supervisory duties	3.39 (0.88)	3.23 (0.93)	3.52 (0.83)

[Table Continued]

Table 18 (Continued)
Differences in Mean Scores of Respondents' Perceptions Regarding
Evidence of Practices in Programs for Students with Disabilities According to Job

Survey Items	Respondents' Perceptions		
	Principal N= 62 Mean (SD)	Sp Ed Teacher N= 71 Mean (SD)	Gen Ed Teacher N= 52 Mean (SD)
P12. Sp ed staff follow same procedures/protocol as gen ed	3.76 (0.54)	3.70 (0.60)	3.54 (0.73)
P13. Instruction - positive attitudes/appropriate interactions	3.68 (0.51)	3.52 (0.56)	3.54 (0.64)
P14. Teachers/administrators are verbally age-appropriate	3.71 (0.58)	3.49 (0.61)	3.65 (0.48)
P15. Instruction uses age-appropriate materials	3.73 (0.52)	3.18 (0.57)	3.35 (0.71)**
P16. Instruction -interaction of students w/wo disabilities	3.66 (0.54)	3.23 (0.66)	3.46 (0.61)**
P17. IEPs include positive/natural behavior mgt strategies	3.52 (0.57)	2.99 (0.80)	3.35 (0.80)**
P18. Gen educators hold lower expectations for students w/dis	2.34 (0.87)	2.71 (0.84)	2.47 (0.86)*
P19. Gen ed staff consistently participate in IEP meetings	3.74 (0.48)	3.44 (0.69)	3.60 (0.60)*
P20. Cooperative strategies are used to include students w/dis	3.50 (0.59)	3.09 (0.76)	3.29 (0.73)*
P21. Gen ed and sp ed staff share instructional responsibilities	3.56 (0.56)	3.18 (0.80)	3.27 (0.82)*
P22. Objectives for students w/ disabilities included in curriulum	3.39 (0.55)	2.94 (0.77)	3.27 (0.77)*

[Table Continued]

Table 18 (Continued)
Differences in Mean Scores of Respondents' Perceptions Regarding
Evidence of Practices in Programs for Students with Disabilities According to Job

Survey Items	Respondents' Perceptions		
	Principal N= 62 Mean (SD)	Sp Ed Teacher N= 71 Mean (SD)	Gen Ed Teacher N= 52 Mean (SD)
P23. Gen and sp ed staff collaborate on adaptions for sp ed students	3.43 (0.67)	3.04 (0.83)	3.31 (0.64)*
P24. Gen ed staff allow modified/ alternative curriculum in class	3.59 (0.94)	3.29 (0.72)	3.43 (0.67)*
P25. Gen ed students have training/informal discussions on sp ed	2.83 (0.81)	2.32 (0.94)	2.65 (0.99)
P26. IEP reflects parent input	3.68 (0.50)	3.27 (0.76)	3.35 (0.76)*
P27. Instruction occurs in natural environments	3.58 (0.50)	3.27 (0.76)	3.35 (0.76)*
P28. Gen and sp ed collect data on student performance	3.55 (0.56)	3.21 (0.75)	3.25 (0.68)*
P29. Curriculum/instruction are adapted for independence	3.51 (0.54)	3.29 (0.70)	3.38 (0.63)
P30. Sp ed and related services in consultative/direct as needed	2.72 (1.09)	2.89 (0.90)	2.71 (0.92)
P31. Consultative services include training and follow-up	3.08 (0.77)	2.69 (0.83)	2.84 (0.90)*
P32. Parents/staff have little opportunity for services outside	2.00 (0.68)	2.27 (0.92)	2.10 (0.78)
P33. Students w/ disabilities attend age-approgriate electives	3.87 (0.34)	3.90 (0.30)	3.85 (0.41)

[Table Continued]

Table 18 (Continued)

Differences in Mean Scores of Respondents' Perceptions Regarding Evidence of Practices in Programs for Students with Disabilities According to Job

Survey Items	Respondents' Perceptions		
	Principal N= 62 Mean (SD)	Sp Ed Teacher N= 71 Mean (SD)	Gen Ed Teacher N= 52 Mean (SD)
P34. Communication between disabled/nondisabled encouraged	3.56 (0.67)	3.44 (0.67)	3.31 (0.78)
P35. Instructional program for each IEP objective	3.34 (0.70)	3.01 (0.90)	3.14 (0.75)
P36. Training /monitoring of paraprofessionals	3.19 (0.85)	2.74 (1.01)	2.84 (1.06)*
P37. Students w/ dis have opportunities to interact	3.84 (0.37)	3.70 (0.54)	3.79 (0.46)
P38. Related services/therapy provided in integrated setting	2.97 (1.00)	2.54 (1.04)	3.06 (0.87)*
P39. Written plan for transition	3.15 (0.91)	2.61 (0.98)	3.12 (0.91)*
Total Means	3.39 (0.30)	3.14 (0.30)	3.24 (0.39)**

*Note: Means closer to 1= no evidence, 2= little evidence, 3= evident, and 4= clearly evident
*Comparisons significant at the 0.05 level
** Comparisons significant at the 0.003 level

To reduce the raw data set, principal components extraction was utilized and identified four possible factors. Factor analysis with promax rotation was then employed. Two factors proved internally consistent and well defined by the variables. Utilizing the Cronbach's Alpha Correlation, both factors scored well above .70. This data is reported in Table 19.

Table 19
Reliability of PSD

Factors	Cronbach Coefficient
Instruction/Training	.90
Age Appropriateness	.74

Table 20 presents the factor loadings for items on the PSD. Although four factors are shown, only Factor 1 and Factor 2 were accepted. Inspection of Factor 1 loadings indicates that the first 19 items correlated highly or moderately with the construct of instruction and training. With a cut off of <.40 for inclusion, variables P26 , P18 were excluded because they did not load on any factor. The succeeding six items, which comprised Factor 2, correlated highly and related to the construct of age-appropriateness.

The remaining items were either excluded or analyzed individually. Item P16, which loaded on two factors and did not relate conceptually to age-appropriateness, was excluded. Items P24, P7, P32 and P3 were also excluded because, although they related conceptually to instruction and training, their loadings did not correlate with that factor. The remaining items, which related to assessability (P2), teaming (P19), duties (P11), protocol (P12), school mission (P8), staff (P10), and socialization (P6), were analyzed individually.

Table 20
Factor Loadings for Principal Factors Extraction with Promax Rotation on PSD Items

Item	Factor 1 (I/T)	Factor 2 (A/A)	Factor 3	Factor 4
Training of service providers (P31)	0.75	0.03	-0.12	0.04
Plan for educational services (P5)	0.73	-0.23	0.26	0.16
Train/monitor paraprofessionals (P36)	0.67	-0.03	-0.07	0.01
Plan to return to gen ed class (P39)	0.64	-0.00	0.10	0.12
Staff inservice/training (P9)	0.62	-0.08	0.02	0.01
Document student performance (P28)	0.60	0.16	0.04	-0.19
Gen ed learn about sped ed (P25)	0.59	0.05	-0.12	0.03
Instruction in natural setting (P27)	0.58	0.12	0.09	0.00
Beh mgt strategies positive (P17)	0.57	0.10	0.12	0.19
Gen/sped share instr duties (P21)	0.54	0.29	0.04	-0.05
Instr plan for each IEP (P35)	0.51	-0.01	0.15	-0.03
Related services in intg setting (P38)	0.51	0.16	-0.20	0.20
Services provided consultative (P30)	0.51	-0.18	0.08	0.12
Objectives in core curriculum (P22)	0.50	0.30	0.02	-0.06
Adapt to develop independence (P29)	0.50	0.20	0.10	-0.18
Cooperative learning strategies (P20)	0.50	0.30	-0.02	-0.15
Gen/sped collaborate materials (P23)	0.46	0.40	0.07	-0.07
Principal responsible for sped (P4)	0.44	-0.19	0.36	-0.08
Increase communication (P34)	0.42	0.17	0.25	-0.07
IEP reflects parent input (P26)	0.38	0.22	0.33	-0.08
Gen ed holds low expectations (P18)	-0.32	0.15	0.12	0.24
Instr models app interactions (P13)	0.12	0.67	-0.12	0.00
Opportunities to interact w/age (P37)	-0.13	0.66	0.21	0.01
Age-appropriate activities (P33)	-0.29	0.65	0.21	0.05
Age app terminology/lang (P14)	0.26	0.58	-0.13	0.11
Age app materials (P15)	0.26	0.58	0.09	0.15
Sped in age app classrooms (P1)	-0.05	0.58	0.02	0.12
Interaction w/wo disabilities (P16)	0.45	0.48	-0.09	-0.01
Building accessible to all (P2)	-0.01	0.47	-0.13	0.11
Gen ed staff on IEP team (P19)	0.16	0.45	0.22	-0.11
Gen ed allow modifications (P24)	0.36	0.42	-0.03	-0.11
Sped staff do duties (P11)	0.12	-0.04	0.64	-0.10
Sped staff follow same protocol (P12)	-0.05	0.24	0.61	0.10
Mission reflects all can learn (P8)	0.41	-0.07	0.46	0.05
Gen/sped separate meetings (P10)	0.15	0.01	0.05	0.76
Sped socialize primarily w/sped (P6)	0.28	-0.25	-0.09	0.67
Gen ed has little know of sped (P7)	-0.04	0.30	-0.17	0.65
Training/follow-up (P32)	-0.38	0.15	0.37	0.45
Sped has same calendar yr (P3)	-0.05	0.28	0.06	0.27

Factor labels: I/T= Instruction and training; A/A = Age-appropriateness
Loadings of .04 or greater and conceptually related to factor are underlined

Analysis of variance (ANOVA) was conducted to determine differences in perceptions regarding the evidence of behaviors and attitudes supportive

of students with disabilities according to job types. Significant differences were found in instruction and training, $F(2, 182) = 10.87$, $p = 0.0001$ and age-appropriateness, $F(2, 182) = 5.18$, $p = 0.006$. Post hoc analysis of the ANOVAs (Tukey's Studentized Range Test) revealed that differences in instruction and training practices occurred between principal and special education teacher groups and between principal and general education teacher groups. Significant comparisons between principals' and special education teachers' responses were indicated on items related to age-appropriateness. These differences are reported in Table 21.

Table 21
Comparisons of Perceptions Regarding Evidence of Practices which Support Inclusive Programming for Students with Disabilities

Factor	All Jobs (N=185) M (SD)	Principals (N= 62) M (SD)	Sped (N=71) M (SD)	Gen ed (N=52) M (SD)	Significant Comparisons* P/SE	P/GE	SE/GE
Instruction/ Training	3.10(.50)	3.31(.43)	2.92(.46)	3.08(.54)	*	*	
Age-Appropriate	3.66(.35)	3.78(.35)	3.59(.33)	3.64(.36)	*		

Note: * Comparisons significate at p<.05 level

Significant differences found in factors on PSD compare with previous findings when items were analyzed individually (Table 18). Specifically, they relate to differences found at $p < .003$ level in the following items:

(5) There is a defined plan for supporting staff in implementation of educational services,

(15) Instruction uses age-appropriate materials

(16) Instructional methods facilitate the interaction of students with and without disabilities.

(19) General education staff consistently participates as IEP team

members

(26) IEP reflects parent input.

In addition to similarities among quantitative findings regarding instruction/training and age-appropriateness, staff development needs relating to these practices were frequently mentioned in responses on open-ended questions (Table 16), specifically in regard to the modification of curriculum for instruction.

Summary of Evidence of Inclusive Programs

Quantitative data gathered from the PSD clearly indicated that participating schools in this study were accessible to all students. Their school mission reflected a philosophy that every child can learn and they considered themselves accountable for serving all students. Special education and general education teachers in these schools generally followed the same procedures and protocol. However, it was not "clearly evident" that these elementary schools provided age-appropriate instruction or that their educational practices demonstrated attitudes and behaviors supportive of students with disabilities Although principal respondents reported that their schools were providing instruction/training supportive of inclusive practices, teachers' responses from these same schools differed significantly.

Participants' Involvement in Special Education and their Attitudes Toward Inclusive Practices

In addition to the Likert-type responses, two open-ended questions addressed influences on participants' involvement in special education programs and attitudes and behaviors which promote integrated practices for students with disabilities. These questions were:

What factor(s) or experience(s) have influenced your involvement in special education programs within your school?

Why? and What factor(s) or experience(s) have influenced your attitude and behavior toward the integration of students with disabilities in the general education environment? Why?

Principals and general education teachers were asked what factor(s) or experience(s) prohibited their involvement in special education programs within their schools. Table 22 summarizes recurring themes which emerged from these two participant groups in regard to factors which have affected their participation in special education programs.

Table 22
Negative Influences on Involvement in Special Education (N=114)

Factor	Frequency		
	Principal	Teacher	Total
On the job experience	8	22	30
Time constraints	16	9	25
Quality of teachers	0	12	12
Prior education/experience in special education	8	4	12
Missing/no response			35

Time constraints were mentioned many times by principals and teachers alike as barriers to involvement in programs for students with disabilities. Several general education teachers noted:

> Time is a severe limitation for collaboration and planning ...limited time and opportunities to interact at school.

One theme mentioned many times (12) expanded on earlier quantitative findings regarding the knowledge and skills necessary for principals to implement special education programs within their schools. When responses of principals with and without prior special education

teaching experience were compared, a significant difference was noted in Table 12 (p.77). Open-ended responses of principals and general education teachers regarding prior education or teaching experience in special education corroborated the perception that this variable does influence one's attitude and behavior regarding involvement and best practice implementation of programs for students with disabilities:

> I was the special education teacher last year at my school that I presently teach in. My experiences in that position allow me to be more involved in the special education program at my school.

> My Bachelors and Masters degrees are in special education. My influence on my staff due to my background enabled them to be more receptive of special needs kids. Mainstreaming is promoted and regular education teachers are supported hands-on. We hold high expectations for all students.

The limited number of participants who mentioned their lack of knowledge and training in special education as a variable which impacted their involvement in special education, prohibits this factor from being considered a significant influence. However, it seemed evident from the responses that lack of knowledge influenced greatly some participants' participation in programs for students with disabilities:

> I am negative because of lack of training and help I receive as a regular class teacher. I feel the children are put into the class without any help from special education services.

> ...I think that general educators feel overwhelmed because we don't have certification in the various areas of special education and yet,

we're expected to take on all the problems that arise.

Lack of training makes me feel inadequate in dealing with special education.

Knowledgeable special education leaders have also influenced principal and teacher respondents' involvement in programs:

My special education director has influenced my involvement a lot. She's very knowledgeable of its numerous laws and policies and communicates that knowledge to staff members where we can understand it better and help make it fit our needs for our classroom.

Training under as special education director who strongly believes in inclusion.

Responses regarding respondents' attitudes and behaviors toward the integration of students with disabilities were similar to the data received from the open-ended question concerning participants' involvement in special education programs. Table 23 summarizes recurring themes which emerged from all three educator groups in regard to factors which affect their attitude and behavior toward the implementation of inclusive practices.

Although there are some inconsistencies between the qualitative and quantitative data concerning behaviors and attitudes that support inclusive programs, it appears clear from these responses that having actual experience in a successful program is a factor influencing respondents' involvement in programs for students with disabilities. Several principal and teacher participants related influences on their own attitudes and behaviors:

Observation of students in self-contained classrooms as well as fully integrated into the regular class has led me to believe that these student

should be in the regular class as much as possible...

Had six years of success in an integrated program. We all loved it!...

....They saw too much good for the students to not have inclusion. It was better than the pull-out program.

Table 23
Influences on Attitude and Behavior Toward Inclusive Practices (N=185)

Factors	Frequency		
	Principal	Teacher	Total
Seeing inclusion work successfully	10	22	32
Influence on classroom	14	10	24
Personal philosophy of integration	4	10	14
Seeing inclusion work successfully	8	2	10
Acceptance and support by staff	5	11	16
Quality of teachers/administrators	0	8	8
On the job experience	0	3	3
Prior education/ experience in special education	2	2	4
Time	1	1	2
Money	1	0	1
Missing/no response			72

Principals also expressed their frustration by stating:

Factors that prohibit integration are money and time.....

Time to effectively work with special education teachers and regular education teachers.

TIME!!!

The influence integration has on the classroom as a whole was viewed by principals and teachers as both positive and negative. Some stated that:

By allowing students with disabilities to interact with their nondisabled peers, it lessens barriers between students.

> I feel that all students benefit from integration .... Children learn a lot from each other and that interaction helps them a lot.
>
> We all benefit when general education and special education kids learn from each other.

Others responded conversely. One general education teacher expressed:

> Having two students with emotional disabilities in my classroom took my emotions and attention away from the other members of my class. This is unfair to regular class students.

Principals also had strong feelings regarding the influence of students with disabilities on other students:

> Everything depends on the individual and what best fits their needs. Some are successful in the regular class, some cannot function well at all. Disruption of the educational process of all students by one or two students has caused me to believe students' rights to an education is being disrupted when students on IEPs cannot function in the reg class.

Summary of Programs for Students With Disabilities

Question 5 investigated perceptions regarding behaviors and attitudes in targeted elementary schools which demonstrate support for students with disabilities and promote successful inclusive special education practices. Participant schools reported data which indicated clear evidence of (1) a mission which reflected accountability for all students, (2) accessibility to all persons with disabilities, and (3) appropriate protocol and procedures for the school staff.

However, responses from this study indicated conflicting perceptions that the targeted schools provided educational services to students with disabilities in an age-appropriate manner or that instruction utilized methods and techniques consistent with inclusive special education practices. The findings were also unclear regarding the perception of attitudes and behaviors supportive of collaborative teaming within respondents' schools.

Open-ended questions addressed factors which potentially influence educators' involvement in special education and implementation of practices which support students with disabilities. Themes which emerged relating to factors affecting participants' participation in and attitudes toward special education included (1) on the job experience, (2) students' influence on the rest of the classroom, (3) viewing successful programs, and (4) prior education/ experience in special education.

Summary of Chapter IV

The purpose of this study was to determine the skills and knowledge necessary for principals to implement effective special education programs within general education settings. In addition, this study explored perceptions of principals and teachers regarding attitudes and behaviors which support the implementation of inclusive programs for students with disabilities in general education.

This study utilized two surveys, the KSSE and the PSD, to gather information which addressed the research questions. Analysis of the KSSE determined twenty knowledge and skills items necessary for principals in special education. Results from the PSD indicated that, although respondents appeared to support a school mission which conveys the expectation that all students achieve, there is not a clear perception that inclusive, age-appropriate instructional practices were actually being provided within

participant schools.

Chapter V includes a discussion of the results of the study, conclusions of the researcher, limitations of the study, and recommendations for practitioners and researchers.

Chapter V

Discussions, Conclusions, Limitations, Recommendations and Summary

This chapter summarizes the purpose of the study and the research questions addressed. Prominent findings are then reviewed as contributions or exceptions to the existing literature. Conclusions and implications are also reported based on these findings. Finally, recommendations are made for future research and limitations of the study are stated.

Review of the Study

Purpose

The purpose of this study was to determine the skills and knowledge believed necessary for elementary principals to implement effective special education programs within general education settings as perceived by principals, special education teachers, and general education teachers. In addition, this study reported the extent to which attitudes and behaviors supportive of best practice inclusive programs for students with disabilities were perceived as evident in participant schools. This study was guided by the following research questions:

1. What skills and knowledge identified in standards from the CEC Common Core of Knowledge and Skills Essential for All Beginning Special Education Teachers do elementary principals believe are necessary to effectively implement special education programs?
2. What skills and knowledge identified in standards from the CEC

Common Core of Knowledge and Skills Essential for All Beginning Special Education Teachers do elementary special education teachers believe are necessary for principals to effectively implement special education programs?

3. What skills and knowledge identified in standards from the CEC Common Core of Knowledge and Skills Essential for All Beginning Special Education Teachers do elementary general education teachers believe are necessary for principals to effectively implement special education programs?
4. What differences, if any, exist among the responses of elementary school principals, general education teachers, and special education teachers regarding their perceptions of the knowledge and skills necessary for principals to effectively implement special education programs?
5. To what extent do elementary school principals, general education teachers, and special education teachers believe behaviors and attitudes which support inclusive programs for students with disabilities are evident within their schools?

Discussion and Conclusions

Principals' Knowledge and Skills in Special Education

Although it is often best in survey research to combine related items before analysis, the researcher believed it critical to look at each knowledge and skill item individually to determine which were believed most necessary for principals to be able to implement effective special education programs. This decision was based on the fact that the survey items utilized were validated by CEC and adopted as minimum criteria for professionals in the field of special education. Responses on individual items were compared

among educator groups. The following section presents a discussion of these findings.

Principals' Perceptions of Knowledge and Skills Necessary in Special Education

Principals in this study strongly indicated that training in special education was necessary for them to effectively implement programs for students with disabilities in their schools. Their mean response scores on 28 of the 35 (74%) survey items were 3.00 or above. The five knowledge and skills ranked highest by principals (Table 7) are:

1. Model appropriate behavior for students and teachers toward individuals with disabilities (S8)
2. Rights and responsibilities of parents, students, teachers and schools as they related to special education (K4)
3. Due process rights related to assessment, eligibility, and placement (K3)
4. Legal regulations, provisions, and guidelines regarding student assessment (K10)
5. Applicable laws, rules and regulations, and procedural safeguards regarding the management of special students' behaviors (K20)

Furthermore, from responses to open-ended questions, principals indicated a need for training regarding the identification and characteristics of students with disabilities and expressed a desire to receive field experiences in which they would have an opportunity to view successful inclusive programs for students with disabilities (Table 8).

These findings are consistent with current literature which indicates principals feel strongly that additional course work and field experiences in special education are needed (DeClue, 1990; Hyatt, 1986; Weinstein, 1989), and

that principals consider themselves inadequate regarding legal issues, student identification and placement, assessment, and behavior management. Findings of the present study also support DeClue's (1990) conclusions that principals play important roles in the implementation of inclusive programming as symbolic leaders, and Rude and Rubadeau's (1992) findings that inclusion is fostered by principals who model total school responsibility for all students.

Special Education Teachers' Perceptions of Knowledge and Skills Principals Need in Special Education

Special education teachers in the present study did not generate as strong a perception as principals regarding the knowledge and skills necessary for principals in all areas of special education. However, similarities are noted between the five items special education teachers and principals ranked highest. The five items ranked highest by special education teachers (Table 9) are:

1. Model appropriate behavior for students and teachers toward individuals with disabilities (S8)
2. Rights and responsibilities of parents, students, teachers and schools as they related to special education (K4)
3. Demonstrate a commitment to developing the highest educational and quality of life potential for all students (SO)
4. Due process rights related to assessment eligibility, and placement (K3)
5. Applicable laws, rules and regulations, and procedural safeguards regarding the management of special students' behaviors (K20)

Both special education teachers and principals ranked modeling appropriate behavior highest, which is further indication of the important

role principals play as a symbolic leaders in developing a positive school climate toward students with disabilities. However, it is interesting to note that, although special education teachers' responses on Likert-type items (Table 9) and open-ended questions (Table 10) strongly supported a perception that principals need to be knowledgeable regarding policies and procedures in special education (K4, K3, K20), they scored items related to the principals' ability to (1) interpret test scores for instructional planning, (2) adapt teaching to students' differing learning styles, and (3) implement best practice for students with disabilities within a "somewhat necessary to necessary" range.

Perhaps this is an indication that special education teachers do not view principals as "instructional leaders" of special education programs. Certainly, this is not consistent with effective schools research (Edmonds, 1989; Sweeney, 1992) or the literature in special education (Burrello, Schrup & Barnett; DeClue, 1990; Lashley, 1992) which identifies principals as instructional leaders for all students (e.g. responsible for ensuring the proper modification and adaptation of general education curricula to meet the needs of students with varying abilities). However, with the growing emphasis on restructured schools, shared governance, and participatory management, one might entertain the possibility that principals should relinquish some authority in special education instructional matters to those teachers who are trained specifically in that area.

One might also speculate that special education teachers are hesitant to support principals' training in assessment, instructional planning, and best practice for students with disabilities because they do not have confidence in the principals' interference with their work in these areas. This concept is especially crucial given that today's principals often make legal and ethical decisions in their buildings regarding special education policy and procedure.

Special education teachers may not be supportive of training for principals in the areas of assessment and placement, instructional planning, and best practice for students with disabilities because they perceive themselves to be more qualified to make decisions in these areas.

General Education Teachers' Perceptions of Knowledge and Skills Principals Need in Special Education

The five items ranked highest by general education teachers (Table 11) are comparable with those reported by principals and special education teachers. They are:

1. Due process rights related to assessment, eligibility, and placement (K3)
2. Rights and responsibilities of parents, students, teachers and schools as they related to special education (K4)
3. Model appropriate behavior for students and teachers toward individuals with disabilities (S8)
4. Demonstrate a commitment to developing the highest educational and quality of life potential for all students (S7)
5. Legal regulations, provisions, and guidelines regarding student assessment (K10)

Furthermore, general education teachers' mean response scores on 91% of the knowledge and skills items were 3.00 or above, indicating overwhelming support for principals' training in special education. Could this imply that general education teachers rely on principals for assistance in special education matters, or that perhaps general education teachers' endorsement of knowledge and skills in special education for principals may have been driven by their own feelings of inadequacy regarding appropriate instructional practices for students with disabilities? It appears, from

responses to open-ended questions (Table 22), that a lack of training in special education adversely affects general education teachers' involvement in inclusive programs for students with disabilities, and that general education teachers' involvement in special education is positively influenced by the presence of knowledgeable special education leaders. Therefore, one might speculate that, if general education teachers' support of principal training in all areas of special education results in principals being more knowledgeable leaders, consequently, general educators' involvement in inclusive programs for students with disabilities would improve.

This study presented new information regarding the influence of the degree of general education teachers' classroom experience with students with disabilities on their perceptions regarding the knowledge and skills necessary for principals in special education. Significant differences were noted on items relating to ethics, assessment, legal issues, and skills between teachers with "a little" experience and those with "a wide variety of experience" with students with disabilities (Table 15). This could possibly be an indication that general education teachers realize a need for training as their involvement with students possessing a variety of disabilities increases, or that, like principals, they might benefit from field experiences and/or viewing successful inclusive special education programs.

Differences Among Principals and Teachers Regarding the Knowledge and Skills Principals Need in Special Education

Significant differences were found between principals, special education teachers, and general education teachers on items relating to the principals' knowledge of (1) the terminology, ethics, and application of assessment (K8, K9, K12), (2) differing learning styles of students with disabilities and how to adapt teaching to these styles (K15), (3) research and

best practice for effective management of teaching and learning for students with disabilities (K18), and (4) interpreting assessment data for instructional planning (S3). It is interesting to note that, generally, differences on items occurred between principals and special education teachers or between special education and general education teachers, not between principals and general education teachers. Consistently, when disagreements occurred between educator groups, special education teachers' mean response scores were significantly lower (Table 12). Perhaps this is an intimation that special education teachers do not embrace the concept of principals as special education leaders as strongly as general educators, or that they consider themselves the authority regarding best practice implementation of teaching and learning or interpretation and application of test scores for students with disabilities.

Given that principals are currently expected to assume more responsibility as special education leaders, one might wonder why special education teachers do not perceive principals' knowledge of assessment, placement, and best practice implementation of special education programs with the same degree of necessity as general education teachers and principals. The literature in general and special education has evidenced widespread documentation of the challenges principals face as coordinators of the prereferral, referral, and placement process for students with disabilities (Anderson & Decker, 1993; Cochrane & Westling, 1977; Gargiulo, 1990; Lashley, 1992; Sage & Burrello, 1994). It would seem logical that, as managers of special education programs, principals must be knowledgeable in all areas of assessment and best practice implementation.

Conversely, one might question the extent to which principals should assume roles as instructional leaders in special education. From results

discussed previously in this chapter, it appears that special education teachers may not agree with the concept of principals as special education instructional leaders to the same degree as general education teachers and principals. The explanation for this difference in perception is certainly an area to be considered for future research.

Summary of Knowledge and Skills Necessary for Principals in Special Education

Results of the present study confirm the need for principals in general education settings to receive training in special education and expand on existing research by recommending twenty knowledge and skills items to guide this preparation. This recommendation is based on the agreement of responses of principals and teachers to specific knowledge and skills items perceived necessary for principals to implement effective special education programs (Table 12). Although the perceptions of special education teachers differed with those of principals and general education teachers on several items relating to assessment and instructional planning, nevertheless, the twenty knowledge and skills items recommended by this study as most appropriate for principals in special education had consensus among all three educator groups.

Perceptions of the Evidence of Inclusive Practices for Students with Disabilities

Based on conflicting responses regarding the principals' responsibility in implementing building level special education programs (Table 18, item 4), this study provides support for the perception that principals may not be directly involved in the special education process within their schools. These findings are consistent with those of De Clue (1992) and Weinstein (1989) who contended that principals are more reactive

than proactive in their approach to special education and rely on others to make decisions regarding students with disabilities.

Furthermore, general and special education teachers' perceptions regarding the evidence of inclusive practices differed significantly with principals' responses (Table 20). Specific instruction/training and age-appropriateness items on which discrepancies occurred related to (1) the acceptance of a school philosophy supportive of staff inservice training on a regular basis regarding special education issues, (2) the use of age-appropriate instructional practices, (3) utilizing methods of instruction which facilitate the interaction of students with and without disabilities, (4) the collaboration of general and special education teachers regarding instructional responsibilities, and (5) the modification and adaption of curriculum for students with disabilities in general education classrooms (Table 18).

Principals consistently scored items relating to inclusive instructional practices and age-appropriateness higher (indicating they perceived them to be provided to a greater degree) than did teacher respondents. It seems plausible, therefore, to conclude that principals either overestimate what is occurring within special education programs in their buildings or that their definition of evidence regarding inclusive instructional practices differs from that of teacher respondents. Perhaps discrepancies in perceptions between principals and teachers regarding the evidence of age-appropriateness and effective instructional practices are an indication that principals are unaware of the nature of services rendered to students with disabilities, or that they lack sufficient knowledge to determine what is best practice in the implementation of special education programs. It may also be possible that principals' responses reflected a larger perspective of the special education program within their buildings than the perceptions indicated by general and

special education teachers' responses. It seems logical to assume that principals perceptions regarding the evidence of effective instructional practices for students with disabilities may be influenced by their interactions with different interest groups, agencies, and community organizations.

Results of this study might lead one to question the actual amount of principals' involvement in the instruction of students with disabilities or the extent of their direct supervision of special education teachers. Certainly, it is not surprising to find teachers more involved in instructional matters than principals, but neither is it surprising to observe effective principals taking active, direct involvement in the instruction of all students within their buildings. If principals are to be instructional leaders of special education programs, they must ensure that students with disabilities receive instruction which is appropriate and consistent with current law (Gargiulo, 1990; Sage & Burrello, 1994; Salisbury & Smith). Furthermore, if principals are truly instructional leaders, they must be responsible for classroom observations and supervision of general and special education staff (Burrello, Schrup & Barnett, 1988; Rude & Rubadeau, 1992). Based on the results of this study, it appears that principals may not be viewed as instructional leaders in the area of special education, and, whether or not this perspective is preferred by special education teachers, is a subject for future research.

The present study also reported findings consistent with previous research (Anderson & Decker, 1993; Van Horn, Burrello & De Clue, 1992) which identified principals as important figures influencing teachers' attitudes and developing a positive school climate toward students with disabilities (Table 12, S7, S8). Additional factors mentioned in this study (Table 23) which might influence attitudes and behaviors regarding the inclusion of students with disabilities are (1) actual experience in a successful

program, (2) time constraints (3) the influence of students with disabilities on the general education students, (4) the quality of special education and general education teachers, (5) acceptance and support by staff , (6) one's personal philosophy of integration, and (8) prior education/experience in special education. Although the amount of qualitative data regarding influences on attitudes and behaviors supportive of inclusive practices was not sufficient to draw conclusions, this information was consistent with research conducted by the National Center on Educational Restructuring and Inclusion (1994) and Villa, Thousand, Meyers, and Nevin (1996).

Summary of Discussion and Conclusions

The present study confirms the belief that principals in general education settings need to receive training in special education and expands on existing research by recommending twenty knowledge and skills items to guide this preparation. This conclusion is based not only on the agreement of principals and teachers to the knowledge and skills items necessary for principals to implement effective special education programs, but also from the perception that principals in this study do not take full responsibility for implementing special education programs within their schools. Furthermore, this study questions the concept of the principal as an instructional leader in special education. If principals are to be instructional leaders for students with disabilities, the lack of evidence that participant schools in this study provided students with disabilities an education which was instructionally or age appropriate, supports a need for principal preparation in best practice implementation of special education programs. Results of this study also indicate that field experiences and viewing successful inclusive programs are valuable to principals and teachers alike.

Implications and Recommendations

The implications and recommendations are presented on the basis of indications from conclusions rather than generalizability from findings. Other states not offering specific training in special education for principals may benefit from these suggestions. These recommendations should be particularly appropriate to Oklahoma's school districts and colleges of education. Implications and recommendations from this study will be made to school districts regarding the role of administrators and staff development, to colleges of education regarding administrator preparation programs, to the Council for Exceptional Children, and researchers concerning future research in this area.

School Districts Serving Students with Disabilities

The implementation of special education programs, which promotes the inclusion of students with disabilities, relies on the knowledge and attitude of the principal. Results of this study are consistent with the literature which identified principals as important symbolic leaders who model appropriate behaviors for students and teachers and develop positive attitudes toward students with disabilities. It was this factor which DeClue (1990) attributed as the principals' most important leadership role. Principals, as special education leaders, must also have an understanding of special education policy and procedure, as well as effective instructional practices for educating students with disabilities. However, principals often do not obtain this knowledge within their university preparation.

Results of this study indicate that school districts must conduct inservice education for principals and teachers regarding innovative and best practices for students with disabilities. Staff development should address instruction and training and collaborative teaming. Specific staff

development needs identified in this study included (1) comprehending how to modify and adapt curriculum and instruction to meet the needs of students with disabilities, (2) understanding specific disabilities and their characteristics, (3) developing effective classroom management, (4) utilizing inclusive teaching practices, and (5) recognizing the roles and responsibilities of the all professionals involved in the team.

Colleges of Education that Train Principals

The state of Oklahoma has identified a need to prepare principals more effectively in the area of special education. Colleges and universities are expected to provide the course work necessary to prepare principals for leadership roles in providing best practice implementation of special education programs within their schools. This study presented twenty specific knowledge and skills, perceived necessary by principals, special education teachers and general education teachers throughout the state. Given that this training was reported necessary by principals and teachers alike, institutes of higher education could perhaps benefit from utilizing these standards as minimum criteria for their principal preparation programs. In addition, as suggested in this study, colleges of education, in collaboration with school districts, might consider offering actual field experiences in special education. The evidence from this study indicates that practical experience is a valuable and important component of principal preparation. Such practices and field experiences for prospective administrators would be in alignment with the National Council for Accreditation of Teacher Education (NCATE) and the Oklahoma Commission for Teacher Preparation (OCTP) standards.

The Council for Exceptional Children

The CEC is an organization responsible to the educational community

by providing current research findings which will help meet the needs of students with disabilities. Findings from the present study could assist the field of special education and educational leadership by the identification of standards from the CEC International Standards for the Preparation and Certification of Special Education Teachers (CEC, 1995) which are most appropriate for principals who administer programs for students with disabilities in general education schools.

Future Research

For the researcher, this study provides a beginning for future study. More information could be gained through additional studies regarding specific course work provided in colleges and universities which address the twenty knowledge and skills identified in this study. In this way, one could determine what competencies are actually being addressed in university principal preparation programs. Future research might also investigate the attitudes of special education teachers as they relate to the preparation of principals in special education and the provision of inclusive programs for students with disabilities. One might consider why special education teachers do not appear as supportive of principal preparation regarding assessment and best practice implementation as other educators in an effort to further articulate the role of the principal as a special education leader.

Furthermore, given that this study posed questions regarding the principals' responsibility in implementing special education programs, future research might investigate the degree of principals' involvement in special education instruction within their schools. This would include principals' collaboration with the special education team and their supervision of special education teachers. Future research to replicate this study should consider comparing responses on Likert-type items with those of the open-ended

questions between principals and teachers within each school. This might help to clarify discrepancies in perceptions revealed in this study, especially those which related to principals' prior experience in special education and their implementation of inclusive programs for students with disabilities.

Numbers alone cannot fully describe the knowledge and skills necessary for principals to implement inclusive special education programs within their schools. This study has presented a baseline of quantitative data that profiles perceptions of what principals need to know and be able to do in the area of special education. However, the next step is to conduct a more in-depth, qualitative study which will define precisely what is expected of principals as special education instructional leaders. In addition, further investigation, qualitatively, of attitudes and behaviors which are supportive of inclusive special education programs will provide the field of general and special education with descriptive information regarding the implementation of best practice for students with disabilities.

Limitations of the Study

There are several inherent limitations in survey research which pertain to this study. First, opinions elicited from the survey items may be suspect when generalizing to other geographical regions or populations. This is due, in part, to the possible lack of familiarly with specific terms which may cause some statements to have slightly different meanings for various respondents. Also, results obtained from survey research could be more reflective of respondent biases, hidden agendas, or lack of information rather than the reality of the situation. It is especially true in this study which examines respondents' perceptions, although it is often assumed that individuals' perceptions of given situations may determine their course of action (Davis & McCaul, 1987). In the present study, respondents' personal

interpretation of items on the survey could limit its findings.

Because the response rate on this study was less than 70%, limitations could exist in the findings due to the non responding group having markedly different opinions on the survey items. For example, principals having successful programs may have been more likely to respond to the questionnaire than those perceiving their programs as inferior. Efforts were made in the design of this study to avoid the above possible limiting factors by (1) surveying principals, general education teachers, and special education teachers to obtain a more accurate reflection of the issues posed within each research question and (2) surveying a large sample (200 each of principals and both groups of teachers).

Finally, the amount of data generated from the responses on the open-ended questions was not sufficient to draw conclusions. However, all respondents were given the opportunity to reply and many responses did support the quantitative findings.

Summary of Chapter V

Based on these findings and conclusions, it appears that behaviors and attitudes supportive of inclusive practices for students with disabilities are not clearly evidenced by general and special education teachers within elementary schools in this study. Perhaps this is due, in part, to the fact that principals are not assuming full responsibility as special education leaders in these schools. Teachers' perceptions indicate that principals may be hesitant to implement innovative special education programs due to their lack of knowledge regarding policy and procedure in special education, as well as effective practices for educating all students.

If principals are to be instructional leaders for students with disabilities, colleges and universities are, therefore, in need of specific

standards which define minimum guidelines for what principals should know and be able to do in the area of special education. This preparation would help ensure that administrators of special education programs in general education settings have an understanding of best practice implementation. The present study identified twenty CEC knowledge and skills which were clearly perceived necessary by principals, special education teachers, and general education teachers to aid in this endeavor, and proposed they be used as guidelines for the preparation of principals who administer programs for students with disabilities.

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Appendix A

PRINCIPALS FOR OUR CHANGING SCHOOLS:

Knowledge and Skill Base
(National Policy Board for Educational Administration, 1993)

Functional Domains:

1. Leadership
2. Information Collection
3. Problem Analysis
4. Judgment
5. Organizational Oversight
6. Implementation
7. Delegation

Programmatic Domains:

8. Instruction and the Learning Environment
9. Curriculum Design
10. Student Guidance and Development
11. Staff Development
12. Measurement and Evaluation
13. Resource Allocation

Interpersonal Domains:

14. Motivating Others
15. Interpersonal Sensitivity
16. Oral and Nonverbal Expression
17. Written Expression

Contextual Domains:

18. Philosophical and Cultural Values
19. Legal and Regulatory Applications
20. Policy and Political Influences
21. Public Relations

Appendix B
The CEC Common Core of Knowledge and
Skills Essential for all Beginning Special Education Teachers
(CEC, 1995)

I. Philosophical, Historical, and Legal Foundations of Special Education

A. Knowledge

1. Models, theories, and philosophies that provide the basis for special education practice.
2. Variations in beliefs, traditions, and values across cultures
3. Issues in definition and identification procedures for individuals with disabilities
4. Due process rights related to assessment, eligibility and placement
5. Rights and responsibilities of parents, students, teachers, and schools as they relate to individuals with disabilities.

B. Skills

6. Articulate personal philosophy of special education, including its relationship to/with regular education.
7. Conduct instruction and other professional activities consistent with the requirements of law, rules, and regulations, and local district policy and procedures.

II. Characteristics of Learners

A. Knowledge

1. Similarities and differences between the cognitive, physical, cultural, social , and emotional needs of typical and exceptional individuals.
2. Differential characteristics of children and youth with disabilities
3. Characteristics and effects of the cultural and environmental milieu of the child and the family
4. Effects of various medications on the educational, cognitive, physical, social, and emotional behavior of individuals with disabilities.

B. Skills

5. Access information on various cognitive, physical, cultural, social, and emotional conditions of individuals with disabilities.

III. Assessment, Diagnosis, and Evaluation

A. Knowledge

1. Basic terminology used in assessment
2. Ethical concerns related to assessment
3. Legal provisions, regulations, and guidelines regarding student assessment
4. Typical procedures used for screening, prereferral, referral, and classification

5. Appropriate application and interpretation of scores
6. The relationship between assessment and placement decisions
7. Methods of monitoring student progress

B. Skills

8. Collaborate with parents and professionals involved in the assessment of students with disabilities.
9. Use performance data and teacher/student/parent input to make or suggest appropriate modifications in learning instruction.
10. Evaluate results of instruction

IV. Instructional Content and Practice

A. Knowledge

1. Differing learning styles of students and how to adapt teaching to these styles
2. Curricula for the development of motor, cognitive, academic, social, language, affective, and functional life skills for individuals with disabilities.
3. Instructional and remedial methods, techniques, and curriculum materials.
4. Life skills instruction relevant to independent, community, and personal living employment

B. Skills

5. Interpret assessment data for instructional planning
6. Conduct evaluation of instruction.

V. Planning, Managing the Teaching and Learning Environment

A. Knowledge

1. Basic classroom management theories, methods, and techniques for students with disabilities.
2. Research based best practices for effective management of teaching and learning.
3. Ways in which technology can assist with planning, and managing the teaching and learning environment

B. Skills

4. Create a safe, positive, and supporting learning environment in which diversities are valued.
5. Incorporate evaluation and management procedures which match learner needs.
6. Create an environment which encourages self-advocacy and independence.

VI. Managing Student Behavior and Social Interaction Skills

A. Knowledge

1. Applicable laws, rules and regulations, and procedural safeguards regarding the implementation of management of student behaviors.

2. Teacher attitudes and behaviors that positively or negatively influence student behaviors.
3. Strategies for crisis prevention/intervention.
4. Strategies for preparing students to live harmoniously and productively in a multiclass, multiethnic, multicultural, and multinational world.

B. Skills

5. Demonstrate a variety of effective behavior management techniques appropriate to the needs of students with disabilities.
6. Implement the least intensive intervention consistent with the needs of the student.
7. Modify the learning environment to manage inappropriate behavior.

VII. Communication and Collaborative Partnerships

A. Knowledge

1. Importance and benefits of communication and collaboration which promotes interaction with students, parents, and school and community personnel.
2. Typical concerns of parents of students with disabilities and appropriate strategies to help parents deal with these concerns.
3. Roles of students, parents, teachers, and other school and community personnel in planning a student's individualized educational program.
4. Ethical practices for confidential communication to others about students with disabilities.

B. Skills

5. Use collaborative strategies in working with students, parents, and school and community personnel.
6. Communicate and consult with students, parents, teachers and other school and community personnel.
7. Foster respectful and beneficial relationships between families and professionals.
8. Encourage and assist families to become active participants in the educational team.
9. Plan and conduct collaborative conferences with parents or primary care givers.
10. Collaborate with regular classroom teachers and other school and community personnel in integrating students into various learning environments.

VIII. Professionalism and Ethical Practices

A. Knowledge

1. One's own cultural biases and differences that affect one's attitude toward students with disabilities.
2. Importance of the administrator serving as a model for students and teachers.

B. Skills

3. Demonstrate the commitment to developing the highest educational and quality of life potential of all students.
4. Demonstrate positive regard for the cultures, religion, gender and sexuality of students.
5. Promote and maintain a high level of competence and integrity in the practice of the profession.
6. Exercise objective professional judgment in the practice of the profession.
7. Demonstrate proficiency in oral and written communication.
8. Engage in professional activities which may benefit students with disabilities and their families.
9. Comply with local, state, and federal monitoring and evaluation requirements.

Appendix C

Definition of Terms

The following definitions are essential to the interpretation of materials presented in this study but are not fully representative of the terminology of special education and the requirements of Public Law 94-142/IDEA. Additional terms are defined within the body of the study.

Administrator- A person in the educational setting who exhibits leadership qualities and a talent for managing and organizing. The administrator completes a degree- oriented program, meets the assessment requirements for a certificate, and participates in an internship and/or ongoing professional development.

Collaboration- Extensive sharing and managing of information by the stake holders in education through multiple types of forums- both formal and informal. In collaboration, educators abandon old traditions of professional isolation by communicating with and supporting one another in educational efforts.

Colleague- A professional associate.

Cooperative Learning- A way of teaching children to work collaboratively for a common purpose. Fundamental elements of cooperative learning include face-to-face interaction in learning groups, a sense of positive interdependence among group members, individual accountability to the group, and the teaching of collaborative skills for working together effectively.

Disability- Condition characterized by the loss of physical functioning or difficulty in learning and social adjustment that significantly interferes

with normal growth and development, as defined by the Americans with Disabilities Act (ADA), "A person with a disability has a physical or mental impairment that substantially limits the person in some major life activity."

Diversity- Those among us who may have special educational and other needs (the person with hearing impairment, the person with visual impairment, the person with mental retardation, etc.) ; those who may share significantly different lifestyles (rural and urban children, children who live in extreme poverty, drug dependents); those whose identity is critically influenced by their gender; and those who are significantly influenced by variations in race, class and religion. For purposes of this study diversity is best defined as those children with special educational needs.

Due Process Procedures- Those procedures that assure the rights of children and parents including "the right to examine the records, obtain an independent evaluation, receive prior notice before a change in an IEP or program, and a right to disagree with and appeal a decision made by the school. This provides parents the option of requesting a due process hearing, conducted by an impartial hearing officer, in which both parties to the disagreement present their side of the conflict.

Exceptional Children- Those children whose physical attributes and/or learning abilities differ from the norm, either above or below, to such an extent that an individualized program of special education is indicated.

Implementation- Making things happen; putting programs and change efforts into action; facilitating coordination and collaboration of tasks; establishing project checkpoints and monitoring progress; supporting those responsible for carrying out projects and plans.

Individualized Educational Program (IEP)- A written statement which specifies instructional objectives and the type(s) and designated time

allotments for specific special education instruction and related services. The plan must include the student's present level of functioning and a statement of annual goals. The IEP must be developed by parents, educators, and the student (when appropriate) and must be reviewed on an annual basis. The plan is designed to meet the unique needs of each student placed in a special education program.

Individuals with Disabilities Education Act (IDEA)- Also known as the Education of the Handicapped Act (EHA), the Education for All Handicapped Children Act (EAHCA), and the Handicapped Children's Protection Act (HCPA). Originally enacted as the EHA, the IDEA is the federal legislation which provides for the free, appropriate education of all children with disabilities. The IDEA establishes minimum requirements which must be complied with in order for states to be eligible to receive financial assistance.

In-service- The period of time beginning at graduation from college continuing throughout the career of a educator.

Instructional Leadership- Effective instructional leaders have five essential qualities which describe their behaviors in the school setting: (1) defining a mission, (2) managing curriculum and instruction, (3) supervising teaching, (4) monitoring student progress, and (5) promoting a positive instructional climate.

Interdisciplinary Teams- Composed of colleagues who teach different subjects, but share the same group of students and consistently plan team-related educational activities and programs.

Least Restrictive Environment- Public Law 94-142 (passed by the federal government in 1975) supports each child's right to be educated in the least restrictive environment (LRE). It stipulates that "to the maximum extent appropriate, handicapped children, including children in public or private

institutions or other care facilities, are educated with children who are not handicapped, and that special classes, separate schooling, or other removal of handicapped children from the regular educational environment occurs only when the nature or severity of the handicap is such that education in regular classes with the use of supplementary aids and services cannot be achieved satisfactorily." (Section 612(5)B of P.L. 94-142, amended in 1990 with P.L. 101-476-IDEA to replace "handicap" with disability).

Multidisciplinary Team- A team composed of educators, parents, medical specialists, psychologists, social workers, and others as necessary, who act in various capacities to schedule and carry out the assessment procedure and make eligibility decisions based on analysis of all evaluation components for special education placements and/or related services. The components to be analyzed include a developmental history, medical, social, psychological, and educational data.

Preservice- The period of time from entering a teacher education program through successful student teaching and college graduation.

Professional development- Continuing professional education or in-service training received by teachers and administrators throughout their careers.

Related Services- The law requires that school provide certain related services to students in special education programs. These services include:

> services, physical and occupational therapy, recreation, early identification and assessment of disabilities in children, counseling services, and medical services for diagnostic or evaluation purposes. The term also includes school health services, social work services in schools, and parent counseling and training. (P.L. 94-142, Sec. 121a.13)

Special Education- Specially designed instruction, at no cost to the

parents, to meet unique needs of a child with a disability. It includes specially designed instruction in the classroom; specially designed instruction in the home, hospital, institution, or other setting; speech-language pathology services consisting of specially designed instruction which is not delivered as a related service, but instead as a special education service delivery; physical education with modifications, specially designed adaptive physical education, movement education or motor development instruction; and vocational education with modifications, specially designed vocational education or applied technology.

APPENDIX D

Survey I: Knowledge and Skills for Principals in Special Education

Survey II: Programs for Students with Disabilities

PRINCIPAL SURVEY

Knowledge and Skills in Special Education

SECTION I – PRINCIPAL DEMOGRAPHICS

1. How many years have you been a principal? _____

2. How many years have you been a principal in your current school assignment?_____

3. Number of years of full-time general class teaching experience:
   Elementary _____ Middle/Junior High _____ High School _____

4. Number of years, if any, special education teaching experience: _____

5. Describe the population of the community in which your school is located:
   Urban (400,000 or more) ❑ Suburban (25,000-400,000) ❑ Rural (25,000 or less) ❑

6. Circle your present school enrollment:
   Under 200 201-400 401-600 Over 600

7. What is your highest level of academic achievement?
   Master's ❑ Master's + 30 ❑ Doctoral ❑ Other_____
   (Specify)

8. Gender: Male ❑ Female ❑

9. From which university did you complete your administrative training? (optional)
   _____

10. Did you complete an internship as part of your administrative preparation? Yes ❑ No ❑
    If you answered "Yes" to an internship, please complete questions 11-13; If "No" go to Section II.

11. I completed the internship in 19____.

12. The length of the internship was:
    Less than one semester ❑ One full semester ❑ A full year ❑
    Other_____
    (Please specify)

13. Which **one** statement best describes your internship experience:
    - ❑ Structured with specific activities designed by the university
    - ❑ Structured by the mentor with specific activities
    - ❑ Mostly unstructured
    - ❑ Structured by a school district in conjunction with the university
    - ❑ Completely structured by a school district

SECTION II

Please circle the degree (1-4) that you feel the following knowledge and skills are necessary for principals to implement effective programs for students with disabilities.

1 = not at all necessary 2 = somewhat necessary 3 = necessary 4 = extremely necessary

		HOW NECESSARY			
		not at all necessary	somewhat necessary	necessary	extremely necessary
KNOWLEDGE – ***How necessary is it that a principal know:***					
1.	Models, theories, and philosophies that provide the basis for special education practice	1	2	3	4
2.	Issues in definition and identification procedures for students with disabilities	1	2	3	4
3.	Due process rights related to assessment, eligibility and placement	1	2	3	4
4.	Rights and responsibilities of parents, students, teachers, and schools as they relate to special education	1	2	3	4
5.	Similarities and differences between the cognitive, physical, cultural, social, and emotional needs of typical and exceptional learners	1	2	3	4
6.	Characteristics and effects of the cultural and environmental milieu of the child and family	1	2	3	4
7.	Effects of various medications on the educational, cognitive, physical, social, and emotional behavior of students with disabilities	1	2	3	4
8.	Basic terminology used in assessment	1	2	3	4
9.	Ethical concerns related to assessment	1	2	3	4
10.	Legal regulations, provisions, and guidelines regarding student assessment	1	2	3	4
11.	Typical procedures used for screening, prereferral, referral, and classification	1	2	3	4
12.	Appropriate application and interpretation of scores	1	2	3	4
13.	The relationship between assessment and placement decisions	1	2	3	4
14.	Methods of monitoring student progress	1	2	3	4
15.	Differing learning styles of students with disabilities and how to adapt teaching to these styles	1	2	3	4
16.	Life skills instruction relevant to independent, community, and personal living employment of students with disabilities	1	2	3	4

		HOW NECESSARY			
		not at all necessary	somewhat necessary	necessary	extremely necessary
KNOWLEDGE – ***How necessary is it that a principal know:***					
17.	Basic classroom management theories, methods, and techniques for students with disabilities	1	2	3	4
18.	Research and best practice for effective management of teaching and learning for students with disabilities	1	2	3	4
19.	Ways in which technology can assist with planning, and managing the teaching and learning environment of students with disabilities	1	2	3	4
20.	Applicable laws, rules and regulations, and procedural safeguards regarding the management of special students' behaviors	1	2	3	4
21.	Teacher attitudes and behaviors that positively or negatively influence the student behaviors	1	2	3	4
22.	Strategies for crisis prevention/intervention	1	2	3	4
23.	Strategies for preparing students to live harmoniously and productively in a multiclass, multiethnic, multicultural, and multinational world	1	2	3	4
24.	Typical concerns of parents of students with disabilities and appropriate strategies to help parents deal with these concerns	1	2	3	4
25.	Roles of students, parents, teachers, and other school and community personnel in planning a student's individualized educational program	1	2	3	4
26.	Ethical practices for confidential communication to others about students with disabilities	1	2	3	4
27.	One's own cultural biases and differences that affect one's attitude toward students with disabilities	1	2	3	4
SKILLS – How necessary is it that the principal be able to:					
28.	Articulate a personal philosophy of special education, including its relationship to/with general education	1	2	3	4
29.	Construct instruction and other professional activities consistent with the requirements of special education law, rules, and regulations	1	2	3	4
30.	Interpret assessment data for instructional planning	1	2	3	4
34.	Demonstrate a variety of behavior management techniques appropriate to the needs of students with disabilities	1	2	3	4

	HOW NECESSARY			
SKILLS – How necessary is it that the principal be able to:	Not at all necessary	Somewhat necessary	Necessary	Extremely necessary
35. Implement the least restrictive placement/intervention consistent with the needs of the student	1	2	3	4
36. Use collaborative strategies in working with students, parents, and school and community personnel	1	2	3	4
37. Demonstrate a commitment to developing the highest educational and quality of life potential for all students	1	2	3	4
38. Model appropriate behavior for students and teachers toward individuals with disabilities	1	2	3	4

SPECIAL EDUCATION TEACHER SURVEY

Knowledge and Skills in Special Education

SECTION I – TEACHER DEMOGRAPHICS

1. How many years have you been a special education teacher? _____
2. How many years have you been a teacher in your current school assignment?_____
3. What certification(s) do you currently hold?_____
   _____
4. In which main category of exceptionality are the students you are currently teaching?
   Mild/Moderate ❑ Severe/Profound ❑
5. What is your highest level of academic achievement?
   Master's ❑ Master's + 30 ❑ Doctoral ❑ Other_____
   (Specify)
6. Gender: Male ❑ Female ❑
7. How many students are presently enrolled in your school? _____
8. How many students in your school are being served in special education? _____

SECTION II

Please circle the degree (1-4) that you feel the following knowledge and skills are necessary for principals to implement effective programs for students with disabilities.

1 = not at all necessary	2 = somewhat necessary	3 = necessary	4 = extremely necessary

HOW NECESSARY

	not at all necessary	somewhat necessary	necessary	extremely necessary
KNOWLEDGE – *How necessary is it that a principal know:*				
1. Models, theories, and philosophies that provide the basis for special education practice	1	2	3	4
2. Issues in definition and identification procedures for students with disabilities	1	2	3	4
3. Due process rights related to assessment, eligibility and placement	1	2	3	4
4. Rights and responsibilities of parents, students, teachers, and schools as they relate to special education	1	2	3	4
5. Similarities and differences between the cognitive, physical, cultural, social, and emotional needs of typical and exceptional learners	1	2	3	4
6. Characteristics and effects of the cultural and environmental milieu of the child and family	1	2	3	4
7. Effects of various medications on the educational, cognitive, physical, social, and emotional behavior of students with disabilities	1	2	3	4
8. Basic terminology used in assessment	1	2	3	4
9. Ethical concerns related to assessment	1	2	3	4
10. Legal regulations, provisions, and guidelines regarding student assessment	1	2	3	4
11. Typical procedures used for screening, prereferral, referral, and classification	1	2	3	4
12. Appropriate application and interpretation of scores	1	2	3	4
13. The relationship between assessment and placement decisions	1	2	3	4
14. Methods of monitoring student progress	1	2	3	4
15. Differing learning styles of students with disabilities and how to adapt teaching to these styles	1	2	3	4
16. Life skills instruction relevant to independent, community, and personal living employment of students with disabilities	1	2	3	4

	HOW NECESSARY			
	Not at all necessary	Somewhat necessary	Necessary	Extremely necessary
KNOWLEDGE – ***How necessary is it that a principal know:***				
17. Basic classroom management theories, methods, and techniques for students with disabilities	1	2	3	4
18. Research and best practice for effective management of teaching and learning for students with disabilities	1	2	3	4
19. Ways in which technology can assist with planning, and managing the teaching and learning environment of students with disabilities	1	2	3	4
20. Applicable laws, rules and regulations, and procedural safeguards regarding the management of special students' behaviors	1	2	3	4
21. Teacher attitudes and behaviors that positively or negatively influence the student behaviors	1	2	3	4
22. Strategies for crisis prevention/intervention	1	2	3	4
23. Strategies for preparing students to live harmoniously and productively in a multiclass, multiethnic, multicultural, and multinational world	1	2	3	4
24. Typical concerns of parents of students with disabilities and appropriate strategies to help parents deal with these concerns	1	2	3	4
25. Roles of students, parents, teachers, and other school and community personnel in planning a student's individualized educational program	1	2	3	4
26. Ethical practices for confidential communication to others about students with disabilities	1	2	3	4
27. One's own cultural biases and differences that affect one's attitude toward students with disabilities	1	2	3	4
SKILLS – How necessary is it that the principal be able to:				
28. Articulate a personal philosophy of special education, including its relationship to/with general education	1	2	3	4
29. Construct instruction and other professional activities consistent with the requirements of special education law, rules, and regulations	1	2	3	4
30. Interpret assessment data for instructional planning	1	2	3	4
34. Demonstrate a variety of behavior management techniques appropriate to the needs of students with disabilities	1	2	3	4

	HOW NECESSARY			
SKILLS – How necessary is it that the principal be able to:	not at all necessary	somewhat necessary	necessary	extremely necessary
35. **Implement** the least restrictive placement/intervention consistent with the needs of the student	1	2	3	4
36. **Use collaborative** strategies in working with students, parents, and school and community personnel	1	2	3	4
37. **Demonstrate** a commitment to developing the highest educational and quality of life potential for all students	1	2	3	4
38. **Model appropriate** behavior for students and teachers toward individuals with disabilities	1	2	3	4

GENERAL EDUCATION TEACHER SURVEY

Knowledge and Skills in Special Education

SECTION I – TEACHER DEMOGRAPHICS

1. How many years have you been a teacher? _____

2. How many years have you been a teacher in your current school assignment?_____

3. What certification(s) do you currently hold?_____
   _____

4. What is your highest level of academic achievement?
   Master's ❑ Master's + 30 ❑ Doctoral ❑ Other_____
   (Specify)

6. Gender: Male ❑ Female ❑

7. How many students are presently enrolled in your school? _____

8. Which statement **best** describes your personal experience regarding students with disabilities:
   - ❑ I have never had a student with disabilities in my classroom.
   - ❑ I have had a little experience working with students with disabilities.
   - ❑ I often have students in my class with mild to moderate disabilities such as learning disabled or students with moderate mental retardation.
   - ❑ I have worked with a wide variety of students with moderate to severe disabilities in my classroom.

SECTION II

Please circle the degree (1–4) that you feel the following knowledge and skills are necessary for principals to implement effective programs for students with disabilities.

1 = not at all necessary 2 = somewhat necessary 3 = necessary 4 = extremely necessary

		HOW NECESSARY			
		not at all necessary	somewhat necessary	necessary	extremely necessary
KNOWLEDGE – ***How necessary is it that a principal know:***					
1.	Models, theories, and philosophies that provide the basis for special education practice	1	2	3	4
2.	Issues in definition and identification procedures for students with disabilities	1	2	3	4
3.	Due process rights related to assessment, eligibility and placement	1	2	3	4
4.	Rights and responsibilities of parents, students, teachers, and schools as they relate to special education	1	2	3	4
5.	Similarities and differences between the cognitive, physical, cultural, social, and emotional needs of typical and exceptional learners	1	2	3	4
6.	Characteristics and effects of the cultural and environmental milieu of the child and family	1	2	3	4
7.	Effects of various medications on the educational, cognitive, physical, social, and emotional behavior of students with disabilities	1	2	3	4
8.	Basic terminology used in assessment	1	2	3	4
9.	Ethical concerns related to assessment	1	2	3	4
10.	Legal regulations, provisions, and guidelines regarding student assessment	1	2	3	4
11.	Typical procedures used for screening, prereferral, referral, and classification	1	2	3	4
12.	Appropriate application and interpretation of scores	1	2	3	4
13.	The relationship between assessment and placement decisions	1	2	3	4
14.	Methods of monitoring student progress	1	2	3	4
15.	Differing learning styles of students with disabilities and how to adapt teaching to these styles	1	2	3	4
16.	Life skills instruction relevant to independent, community, and personal living employment of students with disabilities	1	2	3	4

	HOW NECESSARY			
	not at all necessary	somewhat necessary	necessary	extremely necessary
KNOWLEDGE – ***How necessary is it that a principal know:***				
17. Basic classroom management theories, methods, and techniques for students with disabilities	1	2	3	4
18. Research and best practice for effective management of teaching and learning for students with disabilities	1	2	3	4
19. Ways in which technology can assist with planning, and managing the teaching and learning environment of students with disabilities	1	2	3	4
20. Applicable laws, rules and regulations, and procedural safeguards regarding the management of special students' behaviors	1	2	3	4
21. Teacher attitudes and behaviors that positively or negatively influence the student behaviors	1	2	3	4
22. Strategies for crisis prevention/intervention	1	2	3	4
23. Strategies for preparing students to live harmoniously and productively in a multiclass, multiethnic, multicultural, and multinational world	1	2	3	4
24. Typical concerns of parents of students with disabilities and appropriate strategies to help parents deal with these concerns	1	2	3	4
25. Roles of students, parents, teachers, and other school and community personnel in planning a student's individualized educational program	1	2	3	4
26. Ethical practices for confidential communication to others about students with disabilities	1	2	3	4
27. One's own cultural biases and differences that affect one's attitude toward students with disabilities	1	2	3	4
SKILLS – How necessary is it that the principal be able to:				
28. Articulate a personal philosophy of special education, including its relationship to/with general education	1	2	3	4
29. Construct instruction and other professional activities consistent with the requirements of special education law, rules, and regulations	1	2	3	4
30. Interpret assessment data for instructional planning	1	2	3	4
34. Demonstrate a variety of behavior management techniques appropriate to the needs of students with disabilities	1	2	3	4

	HOW NECESSARY			
SKILLS – How necessary is it that the principal be able to:	not at all necessary	somewhat necessary	necessary	extremely necessary
35. Implement the least restrictive placement/intervention consistent with the needs of the student	1	2	3	4
36. Use collaborative strategies in working with students, parents, and school and community personnel	1	2	3	4
37. Demonstrate a commitment to developing the highest educational and quality of life potential for all students	1	2	3	4
38. Model appropriate behavior for students and teachers toward individuals with disabilities	1	2	3	4

Dear Principal,

As a public school educator myself, I understand the demands on your time. However, I do hope you can find just a few minutes to complete and return this survey in the enclosed envelope. Your participation very valuable to this study.

Thank you very much for your time and trouble.

Sincerely,

Gayle C. Harlin-Fischer

PRINCIPAL CHECKLIST

Programs for Students with Disabilities

SECTION I

Please complete the following statements regarding the special education programs in your school.

1. Which statement **best** describes the special education program in your building:
   - ❑ Students are in self-contained special education classes
   - ❑ Students are predominately in pull-out programs for a portion of the school day
   - ❑ Students are fully integrated into general education classrooms

2. What is the percent of students in your school eligible for special education services? _____%

3. The categories of exceptionality of students identified by special education in your building are:
   - ❑ Only Mild to moderate
   - ❑ Only Severe to Profound
   - ❑ Students categorized as both mild/moderate and severe/profound are located in my building.

4. _____% of my time taken in administration of special education programs.

SECTION II

The following statements regarding special education practices were developed to assist you in identifying behaviors and attitudes that support students with disabilities and promote successful special education programs within your school. Please respond to the following statements using this scale:

1 = There is **no evidence** of this in my building.	2 = There is **little evidence** of this in my building.
3 = This is **evident** in my building.	4 = This is **clearly evident** in my building.

		HOW EVIDENT			
		no evidence	little evidence	evident	clearly evident
1.	Students with disabilities are included in age-appropriate general education classrooms	1	2	3	4
2.	The school building is accessible to all persons with disabilities	1	2	3	4
3.	Students with disabilities have the same school calendar and hours as their nondisabled peers	1	2	3	4
4.	The principal is responsible for implementation of special education programs, which includes supervision and evaluation of the special education staff	1	2	3	4
5.	There is a defined plan or process for supporting staff in implementation of educational services (i.e., time for team planning)	1	2	3	4
6.	Students with disabilities socialize primarily with other students with disabilities	1	2	3	4
7.	General education students have little knowledge regarding the students with disabilities within their classrooms	1	2	3	4
8.	There is a school mission statement which reflects a philosophy that every child can learn and considers the school to be accountable for serving all students	1	2	3	4
9.	The school philosophy supports the need for staff inservice training regarding special education issues on a regular basis	1	2	3	4
10.	Special education staff attend separate faculty meetings from general education staff	1	2	3	4
11.	Special education staff participate in supervisory duties	1	2	3	4
12.	Special education staff follow the same procedures and protocol as general educators	1	2	3	4
13.	Instruction consistently models positive attitudes and appropriate interactions with students who are disabled	1	2	3	4
14.	Teachers and administrators use age appropriate terminology, tone of voice, praise/reinforcement with all students	1	2	3	4

		HOW EVIDENT			
		no evidence	little evidence	evident	clearly evident
15.	Instruction uses age-appropriate materials for all students	1	2	3	4
16.	Instructional methods facilitate the interaction of students with and without disabilities	1	2	3	4
17.	Student IEPs include behavior management strategies that are positive and use natural cues and consequences	1	2	3	4
18.	General educators hold lower expectations for students with disabilities within their classrooms	1	2	3	4
19.	General education staff consistently participate as IEP team members	1	2	3	4
20.	Cooperative learning strategies are used as a way of including students with disabilities in classroom activities	1	2	3	4
21.	General education and special education staff share instructional responsibilities in order to provide quality educational opportunities for all students	1	2	3	4
22.	Learning objectives for students with disabilities are adapted and included within the core curriculum	1	2	3	4
23.	General and special education staff collaborate to make material and environmental adaptations for students with disabilities	1	2	3	4
24.	General education staff allow alternative or modified curriculum to be used their classrooms for students with disabilities	1	2	3	4
25.	General education students learn about students with disabilities through the use of group training or informal discussions	1	2	3	4
26.	IEP objectives reflect parent input	1	2	3	4
27.	Instruction for students with disabilities occurs in natural environments (e.g. general classrooms, community)	1	2	3	4
28.	General and special education teachers collect specific data to document student performance and to identify a need for program modification	1	2	3	4
29.	Adaptations are made in curriculum and instruction to allow opportunities for all students to develop independence	1	2	3	4
30.	Special education and related services in are provided only in a consultative or a direct service format, as needed	1	2	3	4

		HOW EVIDENT			
		no evidence	little evidence	evident	clearly evident
31.	When services are delivered in a consultative format, they include training of service providers, follow-up, and general monitoring of programs	1	2	3	4
32.	Parents and faculty members have little opportunity for educational and related services consultation, training, and follow-up to maximize student's development outside of school	1	2	3	4
33.	Students with disabilities attend activities (e.g. art, music, lunch, recess) with age-appropriate nondisabled peers	1	2	3	4
34.	Efforts are made to increase communication between disabled students and their nondisabled peers	1	2	3	4
35.	For each IEP objective currently being implemented, there is an instructional program or lesson plan written in a format which allows for reliable implementation by anyone delivering direct instruction	1	2	3	4
36.	There is a procedure for training and monitoring paraprofessionals who work with students with disabilities	1	2	3	4
37.	Students with disabilities have regularly scheduled, structured, opportunities to interact with age-appropriate, nondisabled peers throughout the school day	1	2	3	4
38.	When appropriate, related service personnel provide therapy services in integrated settings (e.g. classroom) with nondisabled peers	1	2	3	4
40.	There is a written plan for students with disabilities to return to the general classroom	1	2	3	4

THIS IS THE LAST SECTION!!

THANK YOU SO MUCH FOR YOUR TIME AND TROUBLE IN COMPLETING THIS SURVEY.

SECTION III

1. What factor(s) or experience(s) have influenced your involvement in special education programs within your school? Why?_____

2. What factor(s) prohibit your involvement in special education programs within your school? Why? _____

3. What factor(s) or experience(s) have influenced your attitude and behavior toward the integration of students with disabilities in the general education environment? Why? _____

4. What professional training, if any, do you believe is necessary to enhance your skills in effectively implementing programs for students with disabilities within your school? _____

5. What staff development activities, if any, do you feel are necessary to improve your school's effectiveness in providing educational programs which include students with disabilities? _____

Thank you very much!

Dear Special Educator,

As a public school educator myself, I understand the demands on your time. However, I do hope you can find just a few minutes to complete and return this survey in the enclosed envelope. Your participation very valuable to this study.

Thank you very much for your time and trouble.

Sincerely,

Gayle C. Harlin-Fischer

SPECIAL EDUCATION TEACHER CHECKLIST

Programs for Students with Disabilities

SECTION I

Please complete the following statements regarding the special education programs in your school.

1. Which statement **best** describes the special education program in your building:
   - ❑ Students are in self-contained special education classes
   - ❑ Students are predominately in pull-out programs for a portion of the school day
   - ❑ Students are fully integrated into general education classrooms

2. How many students in your school are eligible for special education services? _____

3. How many students in your school eligible for special education services are fully integrated into general education classrooms? _____

4. The categories of exceptionality of students identified by special education in your building are:
   - ❑ Only Mild to moderate
   - ❑ Only Severe to Profound
   - ❑ Students categorized as both mild/moderate and severe/profound are located in my building.

5. _____% of my principal's time taken in administration of special education programs.

SECTION II

The following statements regarding special education practices were developed to assist you in identifying behaviors and attitudes that support students with disabilities and promote successful special education programs within your school. Please respond to the following statements using this scale:

1 = There is **no evidence** of this in my building.	2 = There is **little evidence** of this in my building.
3 = This is **evident** in my building.	4 = This is **clearly evident** in my building.

		HOW EVIDENT			
		no evidence	little evidence	evident	clearly evident
1.	Students with disabilities are included in age-appropriate general education classrooms	1	2	3	4
2.	The school building is accessible to all persons with disabilities	1	2	3	4
3.	Students with disabilities have the same school calendar and hours as their nondisabled peers	1	2	3	4
4.	The principal is responsible for implementation of special education programs, which includes supervision and evaluation of the special education staff	1	2	3	4
5.	There is a defined plan or process for supporting staff in implementation of educational services (i.e., time for team planning)	1	2	3	4
6.	Students with disabilities socialize primarily with other students with disabilities	1	2	3	4
7.	General education students have little knowledge regarding the students with disabilities within their classrooms	1	2	3	4
8.	There is a school mission statement which reflects a philosophy that every child can learn and considers the school to be accountable for serving all students	1	2	3	4
9.	The school philosophy supports the need for staff inservice training regarding special education issues on a regular basis	1	2	3	4
10.	Special education staff attend separate faculty meetings from general education staff	1	2	3	4
11.	Special education staff participate in supervisory duties	1	2	3	4
12.	Special education staff follow the same procedures and protocol as general educators	1	2	3	4
13.	Instruction consistently models positive attitudes and appropriate interactions with students who are disabled	1	2	3	4
14.	Teachers and administrators use age appropriate terminology, tone of voice, praise/reinforcement with all students	1	2	3	4

		HOW EVIDENT			
		no evidence	little evidence	evident	clearly evident
15.	Instruction uses age-appropriate materials for all students	1	2	3	4
16.	Instructional methods facilitate the interaction of students with and without disabilities	1	2	3	4
17.	Student IEPs include behavior management strategies that are positive and use natural cues and consequences	1	2	3	4
18.	General educators hold lower expectations for students with disabilities within their classrooms	1	2	3	4
19.	General education staff consistently participate as IEP team members	1	2	3	4
20.	Cooperative learning strategies are used as a way of including students with disabilities in classroom activities	1	2	3	4
21.	General education and special education staff share instructional responsibilities in order to provide quality educational opportunities for all students	1	2	3	4
22.	Learning objectives for students with disabilities are adapted and included within the core curriculum	1	2	3	4
23.	General and special education staff collaborate to make material and environmental adaptations for students with disabilities	1	2	3	4
24.	General education staff allow alternative or modified curriculum to be used their classrooms for students with disabilities	1	2	3	4
25.	General education students learn about students with disabilities through the use of group training or informal discussions	1	2	3	4
26.	IEP objectives reflect parent input	1	2	3	4
27.	Instruction for students with disabilities occurs in natural environments (e.g. general classrooms, community)	1	2	3	4
28.	General and special education teachers collect specific data to document student performance and to identify a need for program modification	1	2	3	4
29.	Adaptations are made in curriculum and instruction to allow opportunities for all students to develop independence	1	2	3	4
30.	Special education and related services in are provided only in a consultative or a direct service format, as needed	1	2	3	4

		HOW EVIDENT			
		no evidence	little evidence	evident	clearly evident
31.	When services are delivered in a consultative format, they include training of service providers, follow-up, and general monitoring of programs	1	2	3	4
32.	Parents and faculty members have little opportunity for educational and related services consultation, training, and follow-up to maximize student's development outside of school	1	2	3	4
33.	Students with disabilities attend activities (e.g. art, music, lunch, recess) with age-appropriate nondisabled peers	1	2	3	4
34.	Efforts are made to increase communication between disabled students and their nondisabled peers	1	2	3	4
35.	For each IEP objective currently being implemented, there is an instructional program or lesson plan written in a format which allows for reliable implementation by anyone delivering direct instruction	1	2	3	4
36.	There is a procedure for training and monitoring paraprofessionals who work with students with disabilities	1	2	3	4
37.	Students with disabilities have regularly scheduled, structured, opportunities to interact with age-appropriate, nondisabled peers throughout the school day	1	2	3	4
38.	When appropriate, related service personnel provide therapy services in integrated settings (e.g. classroom) with nondisabled peers	1	2	3	4
40.	There is a written plan for students with disabilities to return to the general classroom	1	2	3	4

THIS IS THE LAST SECTION!!

THANK YOU SO MUCH FOR YOUR TIME AND TROUBLE IN COMPLETING THIS SURVEY.

SECTION III

1. What factor(s) or experience(s) have influenced your attitude and behavior toward the integration of students with disabilities in the general education environment? Why? _____

2. What professional training, if any, do you believe is necessary for principals in order to enhance their ability to effectively implement programs for students with disabilities? _____

3. What staff development activities, if any, do you feel are necessary to improve your school's effectiveness in providing educational programs which include students with disabilities? _____

Thank you very much!

Dear General Educator,

Thank you so much for completing and returning the first mailing of this research project. I have invested much time and money into this project because I believe it can bring about positive changes in education.

Enclosed is the second and final survey. Please take a few minutes to complete it and return in the envelope provided. Remember, all aspects of this research will remain confidential.

Sincerely,

Gayle C. Harlin-Fischer

GENERAL EDUCATION TEACHER SURVEY

Programs for Students with Disabilities

SECTION I

Please complete the following statements regarding the special education programs in your school.

1. Which statement **best** describes the special education program in your building:
   - ❑ Students are in self-contained special education classes
   - ❑ Students are predominately in pull-out programs for a portion of the school day
   - ❑ Students are fully integrated into general education classrooms

2. In which grade level are currently teaching? _____

3. How many students in your class are eligible for special education services? _____

4. How many students in your class eligible for special education services remain in your classroom all day for instruction? _____

5. The categories of exceptionality of students identified by special education in your classroom are:
   - ❑ Only Mild to moderate
   - ❑ Only Severe to Profound
   - ❑ Students categorized as both mild/moderate and severe/profound are located in my classroom

5. _____% of my principal's time taken in administration of special education programs.

SECTION II

The following statements regarding special education practices were developed to assist you in identifying behaviors and attitudes that support students with disabilities and promote successful special education programs within your school. Please respond to the following statements using this scale:

1 = There is **no evidence** of this in my building.	2 = There is **little evidence** of this in my building.
3 = This is **evident** in my building.	4 = This is **clearly evident** in my building.

		HOW EVIDENT			
		no evidence	little evidence	evident	clearly evident
1.	Students with disabilities are included in age-appropriate general education classrooms	1	2	3	4
2.	The school building is accessible to all persons with disabilities	1	2	3	4
3.	Students with disabilities have the same school calendar and hours as their nondisabled peers	1	2	3	4
4.	The principal is responsible for implementation of special education programs, which includes supervision and evaluation of the special education staff	1	2	3	4
5.	There is a defined plan or process for supporting staff in implementation of educational services (i.e., time for team planning)	1	2	3	4
6.	Students with disabilities socialize primarily with other students with disabilities	1	2	3	4
7.	General education students have little knowledge regarding the students with disabilities within their classrooms	1	2	3	4
8.	There is a school mission statement which reflects a philosophy that every child can learn and considers the school to be accountable for serving all students	1	2	3	4
9.	The school philosophy supports the need for staff inservice training regarding special education issues on a regular basis	1	2	3	4
10.	Special education staff attend separate faculty meetings from general education staff	1	2	3	4
11.	Special education staff participate in supervisory duties	1	2	3	4
12.	Special education staff follow the same procedures and protocol as general educators	1	2	3	4
13.	Instruction consistently models positive attitudes and appropriate interactions with students who are disabled	1	2	3	4
14.	Teachers and administrators use age appropriate terminology, tone of voice, praise/reinforcement with all students	1	2	3	4

		HOW EVIDENT			
		no evidence	little evidence	evident	clearly evident
15.	Instruction uses age-appropriate materials for all students	1	2	3	4
16.	Instructional methods facilitate the interaction of students with and without disabilities	1	2	3	4
17.	Student IEPs include behavior management strategies that are positive and use natural cues and consequences	1	2	3	4
18.	General educators hold lower expectations for students with disabilities within their classrooms	1	2	3	4
19.	General education staff consistently participate as IEP team members	1	2	3	4
20.	Cooperative learning strategies are used as a way of including students with disabilities in classroom activities	1	2	3	4
21.	General education and special education staff share instructional responsibilities in order to provide quality educational opportunities for all students	1	2	3	4
22.	Learning objectives for students with disabilities are adapted and included within the core curriculum	1	2	3	4
23.	General and special education staff collaborate to make material and environmental adaptations for students with disabilities	1	2	3	4
24.	General education staff allow alternative or modified curriculum to be used their classrooms for students with disabilities	1	2	3	4
25.	General education students learn about students with disabilities through the use of group training or informal discussions	1	2	3	4
26.	IEP objectives reflect parent input	1	2	3	4
27.	Instruction for students with disabilities occurs in natural environments (e.g. general classrooms, community)	1	2	3	4
28.	General and special education teachers collect specific data to document student performance and to identify a need for program modification	1	2	3	4
29.	Adaptations are made in curriculum and instruction to allow opportunities for all students to develop independence	1	2	3	4
30.	Special education and related services in are provided only in a consultative or a direct service format, as needed	1	2	3	4

		HOW EVIDENT			
		no evidence	little evidence	evident	clearly evident
31.	When services are delivered in a consultative format, they include training of service providers, follow-up, and general monitoring of programs	1	2	3	4
32.	Parents and faculty members have little opportunity for educational and related services consultation, training, and follow-up to maximize student's development outside of school	1	2	3	4
33.	Students with disabilities attend activities (e.g. art, music, lunch, recess) with age-appropriate nondisabled peers	1	2	3	4
34.	Efforts are made to increase communication between disabled students and their nondisabled peers	1	2	3	4
35.	For each IEP objective currently being implemented, there is an instructional program or lesson plan written in a format which allows for reliable implementation by anyone delivering direct instruction	1	2	3	4
36.	There is a procedure for training and monitoring paraprofessionals who work with students with disabilities	1	2	3	4
37.	Students with disabilities have regularly scheduled, structured, opportunities to interact with age-appropriate, nondisabled peers throughout the school day	1	2	3	4
38.	When appropriate, related service personnel provide therapy services in integrated settings (e.g. classroom) with nondisabled peers	1	2	3	4
40.	There is a written plan for students with disabilities to return to the general classroom	1	2	3	4

THIS IS THE LAST SECTION!!

THANK YOU SO MUCH FOR YOUR TIME AND TROUBLE IN COMPLETING THIS SURVEY.

SECTION III

1. What factor(s) or experience(s) have influenced your involvement in special education programs within your school? Why? _____

2. What factor(s) have prohibited your involvement in special education programs within your school? Why?

3. What factor(s) or experience(s) have influenced most your attitude and behavior toward the integration of students with disabilities in the general education environment? Why? _____

4. What staff development activities, if any, do you feel are necessary to improve your school's effectiveness in providing educational programs which include students with disabilities? _____

_____

_____

_____

_____

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_____

_____

_____

_____

Thank you very much!

APPENDIX E

October 1, 1996

Dear Fellow Educator,

I am a doctoral student at the University of Oklahoma conducting research as part of my degree requirements. My topic pertains to the principal as a special education leader. While traditional principal preparation programs formally address general education content, the degree to which special education content is examined is more variable. I am especially interested in learning what principals and teachers think regarding the content needs of principal preparation programs related to special education and how they relate to principals' day to day leadership responsibilities.

You will receive two surveys in the coming month from which I will obtain the data. I would greatly appreciate you taking a few minutes to fill out each survey and return them to me at your earliest convenience in the self-addressed, stamped envelope provided. The surveys are coded for data analysis purposes only. Any writings or presentations as a result of this research will report only numerical data which cannot be used to identify individual responses. Your name and school name will remain completely confidential.

Your participation in this research project will help to determine what knowledge and skills elementary principals need to implement programs for students with disabilities within their buildings. If you have any questions, please do not hesitate to contact either myself at (405) 794-9745 or my advisor, Dr. James Gardner, at (405) 325-1533.

Thank you for the time you will invest in this project.

Sincerely,

Gayle Harlin-Fischer

THIS IS YOUR COPY TO KEEP

Informed Consent Form

This is to certify that _____(print full name), hereby agrees to participate as a volunteer in the research conducted by Gayle Harlin-Fischer. The purpose of this study is to investigate the knowledge and skills necessary for elementary principals in the area of special education and how these relate to the provision of educational programs which include students with disabilities. There are no known risks to participants in this research. This project could benefit educators by improving the content in traditional preparation programs which may actuate positive changes in education.

The information obtained from you will be confidential. None of the questionnaires will contain your name. All such materials will be coded and destroyed at the completion of the study. The only place your name will appear will be on this informed consent form which will be kept confidential and locked in storage. All reports, papers, and publications will use aggregate data which cannot be used to identify individual responses.

You are free to refuse to answer any question without prejudice to yourself. You are free to withdraw your consent to participate in this research at any time without prejudice to yourself. By agreeing to participate in this research and in signing this form, you do not waive any of your legal rights. The research investigator named above, Gayle Harlin-Fischer, will answer any questions about the research procedures and your rights as a participant upon request.

Please sign this consent form and return it in the envelope provided. A copy is enclosed for your records. If you have any questions, please do not hesitate to contact either Gayle C. Harlin-Fischer at (405) 794-9745 or Dr. James Gardner, faculty advisor, at (405) 325-1533.

_____ _____

Your Signature Date

Informed Consent Form

This is to certify that _____(print full name), hereby agrees to participate as a volunteer in the research conducted by Gayle Harlin-Fischer. The purpose of this study is to investigate the knowledge and skills necessary for elementary principals in the area of special education and how these relate to the provision of educational programs which include students with disabilities. There are no known risks to participants in this research. This project could benefit educators by improving the content in traditional preparation programs which may actuate positive changes in education.

The information obtained from you will be confidential. None of the questionnaires will contain your name. All such materials will be coded and destroyed at the completion of the study. The only place your name will appear will be on this informed consent form which will be kept confidential and locked in storage. All reports, papers, and publications will use aggregate data which cannot be used to identify individual responses.

You are free to refuse to answer any question without prejudice to yourself. You are free to withdraw your consent to participate in this research at any time without prejudice to yourself. By agreeing to participate in this research and in signing this form, you do not waive any of your legal rights. The research investigator named above, Gayle Harlin-Fischer, will answer any questions about the research procedures and your rights as a participant upon request.

Please sign this consent form and return it in the envelope provided. A copy is enclosed for your records. If you have any questions, please do not hesitate to contact either Gayle C. Harlin-Fischer at (405) 794-9745 or Dr. James Gardner, faculty advisor, at (405) 325-1533.

_____ _____

Your Signature Date

Please sign and return in the envelope provided.

October 7, 1996

Dear Principal,

The enclosed survey is the first of two mailings you and a special education teacher in your building will receive in the coming month. The special educator will be asked to give a copy of each survey to one general education teacher in your building who has experience working with students with disabilities.

Please complete the survey and return it and the informed consent form in the stamped, addressed envelope provided. Your copy of the informed consent is on the back of this cover letter. This research project will survey 600 educators (principals, special education teachers, and general education teachers) throughout Oklahoma. The reliability of the data collected is dependent on your participation. Remember that your name and school name will remain completely confidential.

If you have any questions, please do not hesitate to contact either myself at (405) 794-9745 or Dr. James Gardner, faculty advisor, (405) 325-1533. Thank you for your valued participation in this research project.

Sincerely,

Gayle C. Harlin-Fischer

October 7, 1996

Dear General Educator,

The enclosed survey is the first of two you will receive in the coming month. You have been chosen by a special education teacher in your building to participate in this research project because of your experience in working with students with disabilities in your classroom. This special education teacher and the principal in your building will also be completing these surveys.

Please complete the survey and return it and the informed consent form in the stamped, addressed envelope provided. Your copy of the informed consent is on the back of this cover letter. This research project will survey 600 educators (principals, special education teachers, and general education teachers) throughout Oklahoma. The reliability of the data collected is dependent on your participation. Remember that your name and school name will remain completely confidential.

If you have any questions, please do not hesitate to contact either myself at (405) 794-9745 or Dr. James Gardner, faculty advisor, (405) 325-1533. Thank you for your valued participation in this research project.

Sincerely,

Gayle C. Harlin-Fischer

October 7, 1996

Dear Special Educator,

The enclosed survey is the first of two mailings you and your principal will receive in the coming month. Please give the additional survey sent to you to one general education teacher in your building with whom you know to have worked with students with disabilities in their classroom.

Please complete the survey and return it and the informed consent form in the stamped, addressed envelope provided. Your copy of the informed consent is on the back of this cover letter. This research project will survey 600 educators (principals, special education teachers, and general education teachers) throughout Oklahoma. The reliability of the data collected is dependent on your participation. Remember that your name and school name will remain completely confidential.

If you have any questions, please do not hesitate to contact either myself at (405) 794-9745 or Dr. James Gardner, faculty advisor, (405) 325-1533. Thank you for your valued participation in this research project.

Sincerely,

Gayle C. Harlin-Fischer