TO INCLUDE OR NOT TO INCLUDE: EARLY CHILDHOOD PRESERVICE EDUCATORS’ BELIEFS, ATTITUDES, AND KNOWLEDGE ABOUT STUDENTS WITH DISABILITIES

Jennifer E. Aldrich, B.S., M.A.

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APPROVED:

George S. Morrison, Major Professor
Bertina Hildreth, Minor Professor
Linda Schertz, Federation Committee Member
Larry G. Daniel, Committee Member
Rebecca J. Glover, Committee Member and Coordinator of the program in Development, Family Studies, and Early Childhood Education
Michael K. Altekruse, Chair of the Department of Counseling, Development, and Higher Education
M. Jean Keller, Dean of the College of Education
C. Neal Tate, Dean of the Robert B. Toulouse School of Graduate Studies
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The first purpose of this study was to develop and validate the Inventory of Opinions About Persons with Disabilities (IOPD). The IOPD was developed to collect preservice early childhood educators’ self-report data related to inclusion. A total of 332 participants enrolled in graduate programs in a college of education served as the validation sample.

After validation and revision of the IOPD, the researcher used the instrument to investigate preservice early childhood educators’ beliefs, attitudes, and knowledge about students with disabilities and their inclusion in general education classrooms. Data were collected from 172 participants from 10 universities in Texas during their student teaching/final intern semesters.

This research demonstrated that an instrument, the IOPD, could be developed to effectively measure preservice early childhood educators’ beliefs, attitudes, and knowledge about the inclusion of children with disabilities in their classrooms. The participants reported positive self-perceptions (mean = 2.0388) about their beliefs and attitudes toward inclusion. However, the participants reported less positive attitudes about training (mean = -0.0984). Discriminant function analyses indicated a negligible statistical effect for type of program (professional development school or traditional) and
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CHAPTER I
INTRODUCTION TO THE STUDY

Children in America are guaranteed a “free appropriate public education” (FAPE) regardless of their abilities (IDEA, 1990). The National Center for Education Statistics (1997a) reported the number of students with disabilities increased 47% while the overall public school enrollment dropped 2% between 1977 and 1995. While inclusion of many students with various abilities and disabilities in the general education classroom is becoming more widespread, debate continues about the effectiveness of inclusion for students with disabilities and the effect of inclusion on students without disabilities from both special educators and general educators (Bricker, 1995; D’Alonzo, Giordano, & Cross, 1996; Glazer, 1997; Schwartz, 1996). Professionals argue about controversial issues such as continuum of placement, legitimacy of claims of benefits, and implementation of inclusion (Hallahan & Kauffman, 2000). Nonetheless, teachers in many schools today teach children with diverse needs and abilities. Unfortunately, only about 25% of today’s teachers feel they possess the skills to implement effective inclusion (Mastropieri & Scruggs, 2000). Consequently, future early childhood teachers (i.e., preservice educators) need to know about inclusion and how to integrate children with disabilities into general education classrooms.

Through an action research project, the author sampled preservice teachers’ perceptions about people with disabilities and found future teachers assigned negative, stereotypical labels to people with disabilities (Aldrich, 1997). The participants were
enrolled in three undergraduate education classes taught by the researcher at a large southern metropolitan university during the Spring, 1997 semester. Through the action research project and class discussions, the author realized most preservice teachers could recite advantages to the inclusion of children with disabilities in general education classrooms, but over 50% did not embrace the idea of having children with disabilities in their classrooms. As a result of the participants’ responses in the action research project, the researcher developed questions and the topic for the present dissertation.

Future teachers’ reluctance to welcome children with disabilities into their general education classrooms caused researchers to be concerned about whether or not educators are prepared for inclusion as an increasing number of schools and early childhood programs around the country are including children with disabilities with their same-age peers (Beattie, Anderson, & Antonak, 1997; National Association for the Education of Young Children [NAEYC], 1996; National Center for Education Statistics, 1997a, 1997b). In fact, in the 1995-96 school year, approximately 12% of all children, or 5.6 million children, enrolled in public school were eligible for special education services. In 1995, 50.7% of students with disabilities between the ages of 3 and 21 years were taught in regular classes, according to the National Center for Education Statistics (National, 1997b).

Although integration of children with disabilities into the general education classroom in the United States continues to increase, various barriers remain that prevent and/or limit these students’ acceptance into the general education classroom. One
problem is whether or not preservice teachers educated in general teacher education programs in colleges and universities are prepared to accept students with disabilities into their classroom learning communities (Vaughn, Schumm, Jallad, Slusher, & Saumell, 1996): “Experts generally agree that complete integration and acceptance of students with disabilities will happen only following long-term changes in attitudes” (Beattie et al., 1997, p. 245). Likewise, other barriers reported in a study by Vaughn et al. included lack of professional preparation and a belief that inclusion would interfere with the learning of all students. Thus, Moisio (1994) recommended continued investigations of preservice teachers’ attitudes regarding the inclusion students with disabilities in general education classes because of the contradictory results of research in this area.

Teachers’ perceptions about students influence teachers’ expectations, beliefs, thinking, and interaction regarding a particular student (Jordan, Kircaali-Iftar, & Diamond, 1993; Nespor, 1987). In addition, teachers’ instructional planning for students in their classes is an important component related to what students learn. Schumm and Vaughn (1992) found that “when teachers make plans and decisions about mainstreamed students, they may be influenced at least as much by personal perceptions and beliefs as by more objective information” (p. 95). “Our work suggests that some teacher belief systems tend to remain stable through time, regardless of teaching experience, location, or level. If these persistent beliefs are not taken into account when designing reforms or conducting research, then we are not optimistic that good faith efforts to improve will work” (Eisenhart, Shrum, Harding, & Cuthbert, 1988, p. 67). Therefore, it is important to understand preservice teachers’ perceptions about individuals with disabilities if
universities and colleges are to prepare teachers for teaching in inclusive classrooms educating general education students and students with disabilities. Consequently, the first step in preparing preservice educators to teach students with disabilities is helping them recognize their beliefs and attitudes about children with disabilities (Brantlinger, 1996; Culverhouse, 1998; D’Alonzo et al., 1996). Eisenhart et al. (1988) used the “definition of belief as an attitude consistently applied to an activity” (p. 54). Likewise, Kagan (1992) explained teacher belief as a tacit, often unconsciously held assumption about students, classrooms, and the academic material to be taught. In addition, because education students tend to adopt strategies that match their belief orientations (Kagan; Richards, 1996), it is important for teacher educators to first encourage preservice teachers to make their preexisting personal beliefs implicit and then to challenge, examine, elaborate, and integrate information about the adequacy of those beliefs before trying to immerse them in pedagogy emphasizing inclusion.

In many schools it is commonplace for general education teachers to be expected to include children with disabilities in their regular classrooms and to work closely with special educators, other professionals, and parents in addressing these children’s needs. As a matter of fact, the National Center on Educational Restructuring and Inclusion (NCERI) (1995) reported 891 school districts in 50 states offer inclusive education programs. Early childhood preservice teachers need to know how to collaborate and cooperate with others, know the laws relating to the rights of children with disabilities, and know how to meet the instructional needs of a diverse population of children. Smith and Smith (2000) stated early childhood regular education teachers are at the core of
successful inclusion because they are part of parents’ and children’s first school experiences and set the foundation for later school success. The NAEYC (1996) reported “the key to creating successful inclusive programs is educating ourselves and others about how to ensure every student in the classroom has the chance to reach his or her fullest potential” (p. 1). Likewise, the Division of Early Childhood (DEC) of the Council for Exceptional Children (CEC) issued a position statement that supports “the development of pre-service and in-service training programs that prepare families, administrators, and service providers to develop and work within inclusive settings” (Division of Early Childhood, 1993, p. 1). Therefore, comments indicating the early childhood teacher education students’ negative attitudes about inclusion, lack of knowledge about inclusion, and a conflict between recited and actual beliefs of the students about inclusion became points to ponder and research (Aldrich, 1997). For example, students could list the benefits of inclusion and stated it was a good idea for children with disabilities to be in general education classrooms. However, they stated they did not want children with disabilities in their rooms (Aldrich; Beattie et al., 1997). The students’ reasons varied from feeling unprepared to meet the needs of children with disabilities to feeling uncomfortable around children with disabilities (Aldrich, Beattie et al.).

Moreover, professionals in the field of early childhood education (Bredekamp & Copple, 1997; Seefeldt & Barbour, 1998) and early childhood special education (Fox & Hanline, 1993; Hayslip & Vincent, 1995) have suggested programs that prepare early childhood education teachers in developmentally appropriate practice (DAP) prepare
teachers to teach all children. Fox and Hanline reported their research data from two single subject studies offered “support for embedding the instruction of skills within the context of play activities as a viable and effective way to teach young children with disabilities in programs that use Developmentally Appropriate Practice as a curriculum framework” (p.308). Likewise, Bailey and Wolery (1992) wrote that developmentally appropriate practice should be in place in every early childhood program although some children will require additional interventions. Although DAP does not equal inclusion, many of the essential characteristics of inclusive classes are part of developmentally appropriate practices. In part, developmentally appropriate practice results from professionals making decisions about the well-being and education of children based on “what is known about the strengths, interests, and needs of each individual child in the group to be able to adapt for and be responsive to inevitable individual variation” (Bredekamp & Copple, 1997, p. 36). Also, developmentally appropriate programs realize, accept, and expect all children to need individual attention to develop and learn (Hayslip & Vincent). In general, teaching methods used with typically developing children can be effective in teaching children with disabilities when instruction is presented so all children can assimilate information and develop skills (Seefeldt & Barbour; Morrison, 1997). Likewise, Salisbury (1991) pointed out early childhood education and early childhood intervention practices share a general concordance and numerous areas of consistency (e.g., integrated content, value and plan for individual needs, assess learning for program planning, and support families).
Consequently, the topic of early childhood preservice educators’ beliefs, knowledge, and attitudes about inclusion is important to investigate. General education teachers are more and more frequently expected to integrate children with a wide range of disabilities into the general education classroom (D’Alonzo et al., 1996; Heller, Spooner, Spooner, & Algozzine, 1992). Preservice teachers need to feel comfortable and able to welcome all children who are part of their class if inclusion is to be effective. In addition, one teacher proficiency listed by the Texas Education Agency (1994) was equity in excellence for all learners. If teachers are to be successful in helping all children reach their individual full potential, they need to take the first step in acceptance by examining their beliefs, knowledge, and attitudes about inclusion while they are at the university/college level (Culverhouse, 1998). Therefore, the intent of the present study is to examine and report self-reported beliefs, attitudes, and knowledge of preservice early childhood educators in Texas in regard to the inclusion of children with disabilities in the general education classroom.

Triandis, Adamopoulos, and Brinberg (1984) asserted that attitudes are, in effect, emotional evaluations and are related ultimately to behavior: “The term attitude is widely used by the public to denote a psychological state that predisposes a person to action” (p. 21). Triandis et al. also pointed out that some attitude theorists define attitude according to three components--the idea, the emotion, and the predisposition to action--while other theorists define attitude as “just another response, which may or may not be related to the behavior of interest” (p. 24).
In order to better understand preservice teachers’ and the public’s beliefs and attitudes about inclusion, it is necessary to understand the many factors and history that led to inclusion. Since the 1960s, Americans have been struggling with the issue of civil rights. Peterson (1987) pointed out that:

The civil rights movement during the 1960s and 1970s not only benefited Black Americans but handicapped persons as well by achieving two important outcomes: (a) It brought attention to the discrepancy between our principles and practices in American society with regard to the rights and privileges under the law by various subgroups; and (b) it brought other minority groups, such as the handicapped, into action to assume their equal rights and to bring unfair practices into review by federal and state courts. (p. 99)

In 1975, the Education for All Handicapped Children Act (Public Law (P. L.) 94-142) ensured all children would be given their civil right to obtain an education, regardless of disabilities. All children in America are guaranteed a “free appropriate public education” (FAPE) regardless of the nature and severity of the disability and to receive an education in the least restrictive environment (LRE) to the maximum extent possible with children without disabilities. School reform has been a topic of debate for over 20 years, and a part of this debate has centered on how to best educate children with disabilities. “Thus, progressive inclusion [including children with disabilities in educational opportunities that would be available if they did not have a disability] involves a historical trend for each generation to take increasing responsibility for
youngsters who were previously excluded from the societal mainstream…” (Brady, Hunter, & Campbell, 1997, p. 240).

In addition to the above legislation regarding children with disabilities, legislation also directly impacted early childhood education and early childhood special education. “The Handicapped Children’s Early Education Assistance Act of 1968 was the first major federal legislation to support early education” (Umansky & Hooper, 1998, p. 3). This legislation supported, through grants, model programs throughout the United States that established exemplary programs and shared their findings with other early education programs. The Education for All Handicapped Children Act (1975, P. L. 94-142) established national policy for the education of children with disabilities between the ages of 3 and 21 years, but states were not required to provide preschool education. The Education of the Handicapped Act Amendments (1986) extended services to 3-5 year-old children with disabilities. The preschool component of this act was mandatory for states receiving funds under the law and the states were required to provide free appropriate preschool education by the school year 1990-1991 (Beirne-Smith, Ittenbach, & Patton, 1998). The infant component of the law was voluntary and provided states with grants to develop services for children with disabilities from birth to two years of age (Beirne-Smith et al.). Today, children with disabilities from birth through nine years of age receive early childhood special education services under Part B and Part H of IDEA (P. L. 101-17, 1997).

The inclusion movement has increasingly given general education teachers responsibility for including, planning for, and teaching children with a wide range of
disabilities in general education classrooms all across the United States (National, 1997a, 1997b; Salend, 1999; Willis, 1995). In Texas for the school year 1997-98, 98.1% of the students in the state were enrolled in regular schools with only 0.4% attending special education schools (U.S. Department of Education Office, 1999). When general educators are responsible for teaching all children in an inclusive classroom, other benefits for all students often result. For example, Smith (1997) reported teachers who worked in inclusive classrooms recognized how individual differences influence all students’ learning and teachers increased their uses of varied instructional approaches. Team teaching, cooperative learning, authentic assessment, peer teaching/tutoring, attention to multiple intelligences, and thematic, interdisciplinary curriculum and instruction are examples of teaching techniques that result in benefits for all children (Illinois Coalition of Inclusion, 1994; Lipsky & Gartner, 1998; Salisbury, 1991). When team teaching is used in the classroom, two or more teachers plan and teach a class of children together. Cooperative learning is a strategy used with small groups of students who work together to plan, learn, and support each other’s learning. Authentic assessments measure growth and what a student has learned overall, rather than specific fact knowledge. Peer teaching or tutoring gives students an opportunity to help each other learn. According to Gardner (1993), acknowledging that children have multiple intelligences (MI) allows children to learn through their areas of strength. Gardner’s theory of MI (linguistic intelligence, musical intelligence, logical-mathematical intelligence, spatial intelligence, bodily-kinesthetic intelligence, naturalistic, interpersonal intelligence, and intrapersonal intelligence) “allow a measurement of intellectual strengths without going through
‘lenses’ of language and logic” (p. xvi). Thematic, interdisciplinary curriculum and instruction encourage students to use multiple intelligences and develop a deeper understanding of a particular subject or interest (e.g., the topic of “farm animals” explored in math, social studies, science, writing, and literature). While these instructional strategies are not used exclusively in inclusive classrooms, the above techniques represent strategies that are helpful and effective when teaching heterogeneous groups of students (Illinois). Thus, communities of learners occur when students support students and teachers support both teachers and students and a heightened awareness of equity is fostered (Salisbury). In addition, the above strategies for teaching have been touted as effective in educational reform as many schools, school districts, and states have forged partnerships with the U.S. Department of Education to support educational improvement based on high standards for all students (Smith, 1997). Furthermore, Villa (1995) explained inclusion has been most successful if it is part of a broad general educational reform movement in schools.

Historically, however, children with disabilities in the United States have not been treated equitably. During the 1800s and until World War II, students with disabilities were routinely placed in residential facilities, institutions, or asylums (Peterson, 1987). However, there was an exception to routine institutionalization between 1900 and 1930, when many large school districts educated children with disabilities in public schools separate from the general education students. In particular, the 1930s and 1940s was an era of large-scale institutionalization and segregation of students with disabilities, but residential facilities became grossly overcrowded and understaffed and did not
accomplish the planned purpose of providing training (Gargiulo & Kilgo, 2000). In the
1950s, some students with disabilities were educated in their neighborhood schools in
self-contained classrooms. These efforts to include children in neighborhood schools
utilizing “separate and parallel” programs meant students with disabilities received
special education services in separate, segregated classrooms (Brady et al., 1997, p. 240).
Moreover, Lipsky and Gartner (1998) asserted the dual system of education created
“separate and unequal” education, providing access to students with disabilities in
separate special education classes and programs and failing all students in terms of
learning. In addition, schools could refuse to admit students with disabilities.

During the 1970s, the first attempt to integrate students with mild disabilities into
general education was termed “mainstreaming.” Thus, mainstreaming was an effort to
bring individual children with disabilities into more facets of school life (e.g., typically
art or physical education class) (Falvey, Givner, & Kimm, 1995; Hallahan & Kauffman,
2000). However, special education teachers maintained the primary responsibility for
students with disabilities (Hallahan & Kauffman). In 1986, the Regular Education
Initiative (REI) was issued by the United States Department of Special Education to
encourage a merger of special education and regular education to serve students with
mild disabilities (Falvey et al.; Hallahan & Kauffman). “REI [is] a philosophy that
maintains that general education, rather than special education, should be primarily
responsible for the education of students with disabilities” (Hallahan & Kauffman, p.
549). Today and during the last 10 years, the term “inclusion” has been used to describe
the practice and expectation that all children with disabilities will be educated in the
classroom they would attend if there were no disabilities (Brady et al., 1997; Stainback & Stainback, 1995). Brady et al. further explained that “full inclusion” was an outcome of school reform and “focuses on creating and maintaining a general education environment supportive of all students who traditionally have been educated outside of, or are at risk of removal from, typical classrooms and schools” (p. 241). However, Cavallaro, Ballard-Rosa, & Lynch (1998) reported the term inclusion is used by some professionals and parents to describe different early childhood special education (ECSE) services. For example, inclusion might mean (1) special education or intervention services provided to children with disabilities in the context of an early education program for typically developing children or (2) children with disabilities are placed in programs for typically developing children with no special education support or (3) programs designed for children with disabilities in which typically developing children are placed (Cavallaro et al.).

Inclusion of students with disabilities has been influenced by various school reform measures. In 1990, the nation’s Governors and President Bush established educational goals America’s children should meet by the year 2000 to improve education. In Goals 2000: National Education Goals (now part of Goals 2000: Educate America Act, 1994) Goal 1 emphasized all children in America will enter school ready to learn. In support of the emphasis of education reform on the idea that success of students is largely dependent upon the teachers who teach them, Goal 4 states teachers in the United States will have access to programs to improve their skills and acquire knowledge to instruct
and prepare all students for the next century (National Education Goals Panel, 1998).
Furthermore, Fullen (1995) affirmed teacher education is potentially the strongest link in school reform. Research has shown teachers’ education and perceptions influence student learning. In addition, Fullen emphasized “a high quality teacher force – always learning – is the *sine qua non* of coping in the dynamic complexity, i.e., of helping to produce citizens who can manage their lives and relate to those around them in a continually changing world” (p. 104). If early childhood general education teachers are given the responsibility for including and teaching children with disabilities, they must be adequately prepared for the task and be prepared to play a critical role in changing schools.

One area of professional interest in the topic of inclusion for early childhood preservice teachers has centered on the unification of early childhood education (ECE) and early childhood special education (ECSE) (Miller & Stayton, 1998). Part of the debate on where children with disabilities should be educated and who should teach them was initiated by the publication of *Developmentally Appropriate Practices* (DAP) (Bredekamp & Copple, 1987). The writings produced from the ensuing debate about DAP compared the professional knowledge and methods that characterize ECE and ECSE. Most authors (e.g., Bredekamp, 1993; Burton, Hains, Hanline, McLean, & McCormick, 1992; Gargiulo, Sluder, & Streitenberger, 1997; Kemple, Hartle, Correa, & Fox, 1994) have agreed there are more commonalities than differences in the fields of early childhood education and early childhood special education (e.g., shared philosophical and theoretical perspectives that highlight child- and family-centered
services, emerging best practices, similar perspectives on broad issues, requirement for collaboration). In addition, Miller (1992) stated “…segregation practices in teacher training perpetuate the myth that particular types of children need teachers who have been trained in discrete bodies of knowledge and pedagogy accessible only to members of specialized fields of expertise” (39). Furthermore, discussions and writings from early childhood special education and early childhood education pointed out ECE and ECSE working together could serve all children more effectively (Bredekamp; Burton et al.; Lerner, 1997; Wolery, Strain, & Bailey, 1992). “The success of full inclusion of children with disabilities depends on the ability of both early childhood and early childhood special education to do a better job of preparing personnel” (Bredekamp, 1993, p. 6). Consequently, Odom and McEvoy (1990) reported the task is to create integrated personnel preparation in ECE and ECSE for preservice teachers.

Another area of professional interest in teacher education and educational reform is where future teachers should be trained. The traditional program is one in which education students finish course work at a college or university and have one or more field placements in schools (to include student teaching). The professional development school (PDS) program is a field-based approach in which education students spend two or more semesters in a public school while completing education course work and practical experiences. PDSs follow different models with varying numbers of semesters and number and kinds of courses offered on-site. However, the overall PDS goals for future teachers are similar even though the conceptualization of each partnership may differ somewhat. Commonalities include collaborations that join teachers, administrators,
and college faculties in order to change the preparation and induction of future teachers (Stallings & Kowlaski, 1990). The planned outcomes are to “create a sustainable network of schools through which the schools prepare new teachers” and “supporting teaching practices that promote and assist all students in achieving high academic standards” (Cooper, 1998, p. 64).

In addition to teacher training, the public interest in inclusion focuses on the benefits and barriers to inclusion. Each person is effected by inclusion and holds a set of beliefs about where children with disabilities are best educated (Rose & Smith, 1993). Stakeholders include teachers, administrators, parents of children with disabilities, parents of children without disabilities, children with and without disabilities, and community members, and each person’s opinion is biased favorably or unfavorably by past experiences and knowledge, personal perceptions, and news media reports. Some have concerns and questions about inclusion:

- Will inclusive classrooms hinder the academic success of children without special needs?
- How will an inclusive environment meet the needs of children with disabilities?
- Will children without special needs lose out on teacher time?
- How can early childhood professionals access resources, support and training?

(NAEYC, 1997, p. 1)

While these are valid questions and concerns, many teachers involved in inclusion feel inclusive practices have helped meet the needs of every child and feel the benefits reach beyond academics (Kochlar, West, Taymans, 2000; NAEYC, 1997). NAEYC further
pointed out that research shows children in inclusive classrooms:

- demonstrate increased acceptance and appreciation of diversity;
- develop better communication and social skills;
- show greater development in moral and ethical principles;
- create warm and caring friendships; and
- demonstrate increased self-esteem. (p. 2)

Statement of the Problem

Inclusion of children with disabilities in the general education classroom effects the education of children with and without disabilities, teachers, and administrators.

Inclusion is a topic of concern to many stakeholders - students with disabilities, students without disabilities, parents of students with disabilities, parents of students without disabilities, teachers, administrators, community members, and policy makers - because it changes the way many students with disabilities have been traditionally taught. Yet, Roach and Caruso (1997) agreed data suggest “systemic policy reform that addresses the needs of all students can lead to improved outcomes for students with disabilities” (Roach & Caruso, p. 112).

In the 1997-98 school year, 46.1 million students in the United States were provided public school education, and approximately one in every eight students participated in special education services through an individualized education program (IEP). In addition, 98.1% of the student population attended regular schools, with only 0.5% in special education schools, 0.4 percent in vocational education schools, and 1.0%
in alternative education schools (U.S. Department of Education, 1999). As these numbers reflect, inclusion is supported in many states and is quickly gaining momentum in many school districts. However, the success of inclusion in schools will be greatly influenced by the effectiveness of teachers to teach children with disabilities.

Early childhood education preservice teachers in colleges and universities today will be faced with implementing inclusion in their classrooms. As stated previously, in 1995, 891 school districts in 50 states reported inclusive schools (NCERI, 1995). If children with disabilities are going to derive benefits from inclusive classrooms, they must be included in the classroom community and not be seen as visitors or left on the fringe. Previous research has indicated teachers’ beliefs, knowledge, and attitudes influence the classroom environment and learning (Isenberg, 1990).

Wolery (Frank Porter Graham Child Development Center) stated that he thought trying to understand the knowledge base as well as the practical experiences of preservice early childhood educators related to special education and children with disabilities was a good topic for research (M. Wolery, personal communication, June 3, 1998). Thus, the problem for this study is to determine the beliefs, attitudes and knowledge early childhood preservice educators self-report about inclusion (including children with disabilities in their classrooms). In addition, Scruggs (Purdue University) stated attitudes of early childhood teachers have not been frequently surveyed. He also shared it was his impression that there is no survey that is commonly used by researchers to measure attitudes about including students with disabilities (T. Scruggs, personal communication, March 29, 1998).
Other dimensions of this problem include: to determine if an instrument could be developed to effectively measure early childhood preservice educators’ beliefs, attitudes, and knowledge about inclusion; to look for any relationships between early childhood preservice educators’ beliefs, attitudes, and knowledge about inclusion; and to determine if preservice early childhood educators’ preferred classroom setting (inclusive, special education, or non-inclusive) or educational program (traditional or PDS) influenced self-reported responses regarding their beliefs, attitudes, and knowledge about inclusion and students with disabilities.

Purpose of the Study

Because the classroom teacher is the key role model in setting the tone and atmosphere of accepting diversity in the classroom (Odom & McEvoy, 1990), the current study was undertaken to develop and validate an instrument and to investigate the attitudes, beliefs, and knowledge of early childhood preservice teachers in Texas universities about inclusion. In 1997, 98.1% of students with special needs were served in “regular” schools in Texas, whereas .4% were educated in special education schools (U.S. Department of Education: Office, 1999). In order to help individuals develop an awareness about their attitudes, the first step is to have students examine their past experiences and feelings about students with disabilities (Culverhouse, 1998; Seefeldt & Barbour, 1998). The results of the current study might identify Texas preservice teachers’ attitudes, beliefs, and knowledge about inclusion of children with disabilities in their future general education classrooms. By identifying preservice early childhood teachers’ perceptions, university educators may recommend effective strategies, courses,
instruction, field experiences, and teacher preparation that will change attitudes and perceptions to better meet the diverse needs of the children in their future classes. On the other hand, the present study may validate the teaching and modeling techniques currently implemented in early childhood preservice teacher education programs in Texas.

In addition, the development and testing of an instrument to effectively measure early childhood preservice educators’ beliefs, attitudes, and knowledge might be a contribution to the field and encourage further research about early childhood educators’ practice of inclusive education. Also, other preservice education fields (e.g., elementary education, physical education, reading education, etc.) could use the instrument.

Research Questions

Research and literature report the importance of teachers’ beliefs, attitudes and knowledge related to inclusion of students with disabilities. Consequently, for the current study the following research questions investigated the perceptions of preservice early childhood educators about inclusion:

1. Can an instrument be developed to effectively measure preservice early childhood educators’ beliefs, attitudes, and knowledge about the inclusion of children with disabilities in their classrooms?

2. To what extent do preservice early childhood educators self-report stereotypical beliefs and attitudes about persons with disabilities?

3. To what extent do preservice early childhood educators self-report they have the knowledge to educate children with disabilities in their classrooms?
4. To what extent do preservice early childhood educators self-report they have positive beliefs and attitudes about inclusion?

5. To what extent do preservice early childhood educators self-report they feel prepared to instruct students with disabilities?

6. To what extent do preservice early childhood educators self-report they feel they are trained to implement inclusive practices in their general education classrooms?

7. To what extent do relationships exist among preservice early childhood educators’ attitudes, beliefs, and knowledge about inclusion and students with disabilities?

8. To what extent will attitudes, beliefs, and knowledge about inclusion and students with disabilities differ between preservice early childhood educators in traditional versus PDS programs?

9. To what extent will attitudes, beliefs, and knowledge about inclusion and students with disabilities differ among preservice early childhood teachers who express preferences to teach in inclusive, non-inclusive and special education settings?

Significance of the Study

The 1990s was a decade of growth for inclusion education: “During the past several years, the movement toward full inclusion of all students in the mainstream of general education has gained unparalleled momentum” (Stainback & Stainback, 1995, p. 22). In the United States in 1995, 73% of children with disabilities (Kindergarten
through 12th grade and 3-5 year-olds in Chapter 1) were served in public school general education classrooms or resource rooms combined in a regular school building (National Center for Education Statistics, 1999). Likewise, Wolery, Martin, et al. (1994) surveyed early childhood programs and found children with disabilities enrolled in each of four general program categories: Head Start, 94%; public school prekindergarten, 74%; public school kindergarten, 82%; community programs, 59%. Furthermore, McDonnell, Brownell, and Wolery (1997) surveyed preschool teachers working in programs accredited by the National Association for the Education of Young Children and reported more than half of the respondents had a child with a disability in their classes. Consequently, students who are currently in universities and colleges in general early childhood teacher education programs will be expected to educate all students regardless of abilities or disabilities. Pajares (1993) pointed out that teacher educators must help college students identify their beliefs and then provide curriculum focusing on belief exploration and alteration. Thus, the data obtained from the present study might be important in designing courses and practical experiences for undergraduate students in general early childhood education.

In addition, some professionals in the field of early childhood education and early childhood special education (Appl, 1995; Burton, Haines, Hanline, McLean, & McCormick, 1992; Gargiulo et al., 1997; Kemple et al., 1994; Miller & Stanton, 1998) support a unified program of education for preservice teachers (where general and special educators are taught in a collaborative method by faculty from both fields). If universities and colleges move toward a unified education program, the information from
this study could be used as a baseline to compare the perceptions of general early childhood education students who are educated in a segregated program with those of early childhood education students who are educated in a unified program.

While research has been conducted with practicing teachers (Yasutake & Lerner, 1996), limited research has assessed preservice teachers’ beliefs, attitudes, and knowledge about inclusion. Most of the research on preservice teachers’ perceptions dealt with one or two dimensions (i.e., beliefs, attitudes, knowledge) of the problem for this study, but not all three (Beattie, Anderson, & Antonak, 1997; Blair, 1983; Moisio, 1994; Warger & Trippe, 1982; Wilczenski, 1993). Much of the early research focused on special education teachers. More recently, special education, elementary, and high school teachers’ and administrators’ opinions, knowledge, and practices related to inclusion have been investigated (Jordan, Kircaali-Iftar, & Diamond, 1993; Monahan, Miller, & Marino, 1996; Scruggs & Mastropieri, 1996). However, to date there is a paucity of research investigating preservice early childhood educators’ opinions and knowledge of inclusion. For the present study an instrument was revised and tested to determine to what extent preservice early childhood teachers’ beliefs, attitudes, and knowledge about inclusion can be assessed implementing a self-report opinion questionnaire.

Definition of Terms

The following definitions will clarify terms used in this research study.

Inclusion— As stated in the position paper by the Division of
Early Childhood (DEC) of the Council of Exceptional Children (CEC) and the National Association for the Education of Young Children (NAEYC) (Division of Early Childhood, 1993):

Inclusion, as a value, supports the right of all children, regardless of their diverse abilities, to participate actively in natural settings within their communities. A natural setting is one in which the child would spend time had he or she not had a disability. Such settings include but are not limited to home and family, playgroups, childcare, nursery schools, Head Start programs, kindergartens, and neighborhood school classrooms. (p. 1)

Child [or student] with a disability -

(A) IN GENERAL. – The term ‘child with a disability’ means a child—

(1) with mental retardation, hearing impairments (including deafness), speech or language impairments, visual impairments (including blindness), serious emotional disturbance (hereinafter referred to as ‘emotional disturbance’), orthopedic impairments, autism, traumatic brain injury, other health impairments, or specific learning disabilities; and

(2) who, by reason thereof, needs special education and related services.

(B) CHILD AGED 3 THROUGH 9. – The term ‘child with a disability’ for a child aged 3 through 9 may, at the discretion of the State and the local educational agency, include a child—

(1) experiencing developmental delays, as defined by the State and as measured by appropriate diagnostic instruments and procedures, in one
or more of the following areas: physical development, cognitive development, communication development, social or emotional development, or adaptive development; and

(2) who, by reason thereof, needs special education and related services.

(IDEA Amendments of 1997, Part A, Section 602, No. 3 A & B)

Integration – refers to the placement of a student with a disability (regularly enrolled in a segregated, special education program) into a general education environment for part(s) of the student’s education. The student with a disability must meet prerequisites before integration in academic classes and/or demonstrate prerequisite social skills before integration for social purposes (Illinois, 1994; Salisbury, 1991).

Mainstreaming—the placement of students with disabilities in general education classes for all or part of the day (Beirne-Smith, Ittenbach, Patton, 1998; Hallahan & Kauffman, 2000; Lewis & Doorlag, 1995; Smith, 1998); however, special education teachers maintain the primary responsibility for students with disabilities (Hallahan & Kauffman, 2000).

Regular Education Initiative (REI)—“A philosophy that maintains that general education, rather than special education, should be primarily responsible for the education of students with disabilities” (Hallahan & Kauffman, 2000, p. 549).

Free Appropriate Public Education (FAPE) -

The term “free appropriate public education” means special education and related services that—
(A) have been provided at public expense, under public supervision and direction, and without charge;

(B) meet the standards of the State educational agency;

(C) include an appropriate preschool, elementary school, or secondary school education in the State involved; and

(D) are provided in conformity with the individualized education program required under section 614(d). (Idea Amendments of 1997, Sec. 602, No. 8, A, B, C, D)

LRE (least restrictive environment) - the environment closest to the natural environment so that children reach their full potential. Public Law 94-142 defines LRE: to the maximum extent appropriate, handicapped children, including those children in public and 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 (P. L. 94-142, Section 1412 [5] [B]).

Preservice educator/teacher (also known as a teacher intern, student teacher, novice teacher, teacher candidate) – a college or university student who is preparing to become a teacher in a teacher education program (Seefeldt & Barbour, 1998).
Early childhood – The National Association for the Education of Young Children (NAEYC) (1997) states early childhood encompasses the years from birth through age eight.

Early childhood educators (ECE) – in Texas (and for the purpose of this study) teachers who are certified to teach children in grades pre-kindergarten through sixth grade (K. Day, personal communication, November 10, 1999).

Special education - The term ‘special education’ means specially designed instruction, at no cost to parents, to meet the unique needs of a child with a disability, including—

(A) instruction conducted in the classroom, in the home, in hospitals and institutions, and in other settings; and,

(B) instruction in physical education. (IDEA Amendments of 1997, Sec. 602, No. 25 A & B)

Early childhood special education (ECSE)—“The provision of customized services uniquely crafted to meet the individual needs of youngsters with disabilities between three and five years of age” (Gargiulo & Kilgo, 2000, p.333).

Developmentally appropriate practices (DAP) - the process of professionals making decision about the well-being and education of children based on at least three important kinds of information or knowledge:

1. what is known about child development and learning—knowledge of age-related characteristics that permit general predictions within an age
range about what activities, materials, interactions, or experiences will be safe, healthy, interesting, achievable, and also challenging to children;

2. what is known about the strengths, interests, and needs of each individual child in the group to be able to adapt for and be responsive to inevitable individual variation; and,

3. knowledge of the social and cultural contexts in which children live to ensure learning experiences are meaningful, relevant, and respectful for the participating children and their families. (Bredekamp & Copple, 1997, p. 36)

**Knowledge**— is information a person has learned and believes to be true (Kagan, 1992).

**Belief**—is a person’s strongly held opinion based on episodic memory with material drawn from experience or cultural sources (Nespor, 1987).

**Attitude**— is an individual’s feelings or perceptions about persons or things (Carter, 1998; Fishbein, 1967).

**Limitations and Delimitations**

As with any research relying on data from self-report measures, it is necessary to identify potential limitations. The following are some limitations and delimitations concerning preservice teachers reporting their beliefs, knowledge, and attitudes regarding inclusion of children with disabilities in a general education classroom.

People who complete and return a questionnaire or survey may be intrinsically different from those who do not complete the instrument (Jaeger, 1988). In addition,
respondents may have a special interest or stake in the outcomes of the questionnaire (Pearman, Huang, & Mellblom, 1997).

The preservice early childhood educators were from sites in Texas; therefore, the participants may not be representative of preservice early childhood teachers in other locales and generalizations of the findings may not be appropriate beyond this group. In addition, preservice early childhood teachers’ attitudes, beliefs and knowledge may not reflect the opinions and knowledge of preservice teachers in other majors (e.g., secondary education); therefore, the results of the present investigation would be limited in generalization to preservice teachers in other fields. However, to minimize this limitation and obtain a broad spectrum of opinions, the inventory was administered to early childhood preservice educators at a variety of sizes of universities, both public and private, in various regions of Texas. In fact, the inventory was administered to students in traditional teacher education programs and professional development school (PDS)/centers for professional development and technology (CPDT) programs. The PDS/CPDT program format and content vary widely from university to university, which might have influenced the results of the data collected. Therefore, the results might not represent all or individual PDS programs. The researcher sought to delimit this effect by administering the inventory to participants at 8 universities with PDS/CPDT programs.

It is possible, also, that there could be a discrepancy in the way the preservice early childhood teachers responded and their true beliefs and attitudes due to perceived educational/societal expectations. Therefore, those surveyed were assured anonymity and confidentiality of their responses to encourage honest responses. In addition, Beattie,
Anderson and Antonak (1997) reported the SADP scores are not influenced by social desirability response bias. Therefore, by incorporating SADP into the research instrument for this study the researcher hoped to reduce social desirability bias.

Consequently, an assumption that responses were truthful and thoughtful, the sample large and varied, the instrument previously tested, and confidentiality assured were delimitations for this research. In addition, the purpose of the study was to understand Texas early childhood preservice teachers rather than generalize the study to the overall preservice teacher population, and it was assumed the responses by the participants were representative of the larger population of Texas early childhood preservice educators.
CHAPTER II
REVIEW OF THE LITERATURE

Introduction

This chapter presents prior research and literature related to the topic of inclusion. “We should realize that inclusion is not only a good idea, but a fact of life in our K-12 schools” (Pearman, Huang, & Mellblom, 1997, p. 19). Consequently, the present study explored the beliefs, attitudes, and knowledge of Texas early childhood preservice teachers about inclusion and their preparation to teach students with disabilities. Research reveals teachers’ beliefs, attitudes, and knowledge influence the classroom environment and student learning (Pajares, 1992). Thus, personal knowledge, beliefs, and attitudes intermingle and impact the efficacy of preservice teachers’ perceptions about their skills to teach all children.

The review of literature will concentrate on two foci: a brief historical overview of the sequence of events leading to inclusion and an examination of the knowledge, beliefs, and attitudes of preservice early childhood teachers about inclusion. Each element of the latter focus will be investigated in relation to teachers’ and preservice teachers’ general knowledge, beliefs, and attitude acquisition and then specifically as each attribute applies to inclusion.
A Brief Historical Overview: Past and Present Factors

Influencing Inclusion

Inclusion reflects an attitude and belief regarding the best place to educate children with disabilities. Lipsky and Gartner (1998) emphasized the model of inclusion holds to several principles:

students are more alike than different; with effective educational practices, schools can educate well and together a wide range of students with better outcomes for all; and, separation is costly, a civil rights violation, and a cause for limited outcomes for students with disabilities. (p. 78)

To better understand inclusive practices, the sections below examine the evolution of inclusion and a brief description of the manner in which students with disabilities have been educated throughout history.

The Evolution of Inclusion

The evolution of inclusion began in the early 1900s with the term “normalization,” which reflects a belief that individuals with disabilities are entitled to the same freedoms and opportunities as persons without disabilities (Hallahan & Kauffman, 2000). During the 1950s and 1960s, the terms “deinstitutionalization” and “community integration” referred to the principle of moving people with disabilities out of large institutions and integrating them into their communities. The philosophy of community integration incorporates the concepts of civil liberties rooted in the normalization principles (Kochhar, West, & Taymans, 2000). In the 1970s, least restrictive environment (LRE) served to provide access to education settings that least
restricted the freedom of students with disabilities to interact with peers. “Mainstreaming” was the term used in the 1980s based on the LRE principle of educating students with disabilities to the extent possible in the same classroom as peers without disabilities. Placement of students with disabilities into general education settings was usually part-time. Mainstreaming portrayed an attitude that students with disabilities were visitors in the general education classroom and really belonged to special education. Overall the responsibility for students with disabilities was the responsibility of the special education teacher, but for certain times of the school day they were placed in the mainstream environment (Mastropieri & Scruggs, 2000). Finally, in the early 1990s inclusion was used to refer to the integration of students with a wide range of disabilities into the general education classrooms (Kochhar et al.). The major differences in the concepts of inclusion and mainstreaming are especially important. Inclusion promotes the view the general education classroom is the primary placement and the general education teacher is responsible for the student with disability; whereas, mainstreaming reflects special education classroom as the primary placement and special education teacher as primarily responsible for the student with disability (Hallahan & Kauffman; Idol, 1997; Kochhar et al.). Even though earlier research studies used various terms - mainstreaming, integration, and inclusion – they measured attitudes and beliefs about educating children with disabilities in the general education classroom.

Today the benefits and barriers to inclusion are discussed and debated. Brady et al. (1997) stated, “this proposition [inclusion] has been advocated and resisted with a level of invective seldom seen in educational debates” (p. 240). Regardless of the
resistance and debates, the inclusion of children with disabilities has made progress since the early 1900s (National, 1997b). Proponents of inclusion support a more effective education for all students and believe emphasis should be on improving and individualizing instruction rather than on assessment and labeling (Pearman et al., 1997). The ultimate rationale for inclusion is based not on law or regulations or teaching technology, but on values. Specifically what kinds of people are the citizens of the United States, what kind of society do people wish to develop, and what values do people honor? (Gartner & Lipsky, 1992). On the other hand, critics of full inclusion state the general education system cannot provide individualized attention to students with disabilities because of “whole group focus” (Hallahan & Kauffman, 2000, p. 60). In addition, Hallahan and Kauffman offered these arguments against full inclusion: general and special educators and parents are satisfied with the current placements; general educators are unwilling to cope with all students with disabilities; and, empirical evidence does not support full inclusion.

**Educating Children with Disabilities**

Until the mid-1900s, students with disabilities were primarily educated in asylums and residential institutions (Stainback & Stainback, 1995). During the 1950s and 1960s, there was “an increased recognition and respect for the human dignity of all citizens, regardless of their individual differences” (Stainback & Stainback, p. 19). The Civil Rights movement not only affected the way Blacks and minorities were educated, but also brought attention to the way students with disabilities were excluded from public education (Peterson, 1987). Furthermore, parents of students with disabilities and special
education professionals established organizations and began advocating for public educational opportunities for students with disabilities (Crockett & Kauffman, 1998; Peterson; Stainback & Stainback). As a result, 47 right-to-education cases were heard in 28 states from 1972 through 1974 (Crockett & Kauffman).

However, it was not until 1975 that Congress passed P. L. 94-142, Education for All Handicapped Children Act (now Individuals with Disabilities Education Act/IDEA) that guaranteed all children (regardless of disabilities) the right to a free appropriate public education (FAPE) in the least restrictive environment (LRE) as possible (Stainback & Stainback, 1995). As one of the main tenets of P. L. 94-142, the goal of educating children in the least restrictive environment was to guarantee children the right to interact to the “maximum extent” possible with children who are not disabled. LRE set the stage for inclusion because, on a continuum of settings, the general education classroom is the least restrictive, with a hospital or institution being the most restrictive (Crockett & Kauffman, 1998; Culverhouse, 1998). Therefore, even though IDEA did not mandate inclusion, this law established the concept of educating students with disabilities in the general education setting (Culverhouse). As a result, states began subsidizing public school programs and requiring regular classroom teachers to take courses to prepare for mainstreaming students with disabilities. However, the first attempts to provide a free appropriate public education for children with disabilities resulted in a policy of equal but separate classes. However, some researchers would maintain special education classes were separate but unequal. Thus, even though students with disabilities
began attending neighborhood schools, these students were grouped and segregated in separate, special education classrooms (Lipsky & Gartner, 1998).

In the late 1970s and early 1980s, students with disabilities (depending on the severity of the disability) were attending general education classes for part of the day or were integrated into the general school environment, i.e. cafeteria, playground, library, buses, etc. (Falvey et al., 1995; Stainback & Stainback, 1995). Mainstreaming was a special education program that filled a void between a separate system of education and inclusive education programs when educators began to think children in separate but parallel programs ought to be part of the “typical” school mainstream (Brady et al., 1997). The program of mainstreaming focused on integrating individual children with disabilities into the general education classroom for a portion of the school day in order to include the child into more facets of school life (i.e., cafeteria, outside play, assemblies, music, art, gym) (Brady et al.; Falvey et al.; Hallahan & Kauffman, 2000). However, students with disabilities were expected to achieve a predetermined level before they could participate in general education classes, and once in the class, they were provided insufficient or ineffective supports for success in the general education classes.

During the 1980s, policymakers, researchers, and advocates for children with disabilities became concerned about the relationship between general and special education (Hallahan & Kauffman, 2000). Therefore, the U.S. Office of Special Education and Rehabilitation issued the next step toward inclusion, the Regular Education Initiative (REI), in 1986. REI was an attempt to encourage collaboration and cooperation between
general education and special education. As a matter of fact, proposals called for restructuring or merging general and special education (Hallahan & Kauffman). It was reasoned that a partnership between the two programs and new teaching strategies would result in a merged program that would best meet the needs of students with mild and moderate disabilities in a general education classroom (Davis & Maheady, 1991; Falvey, et al., 1995; Mastropieri & Scruggs, 2000; Pearman et al., 1997; Stainback & Stainback, 1995).

Likewise, in the late 1980s and early 1990s there was a movement to include all students in general education classrooms. “In 1988, the Association for Persons with Severe Handicaps adopted a resolution calling for the education of students with severe and profound disabilities in regular education and the integration of special and general education” (Stainback & Stainback, 1995, p. 22). Even though there have been attempts to restrict and reverse the inclusion of students with disabilities in the general education environment, today there are many students with mild and profound disabilities included in the classrooms they would have attended if they had no disabilities (Stainback & Stainback).

In the 1990s, discussions about inclusion had broadened in scope. For over 20 years, publications from the special education profession had addressed including children with disabilities in the general education classroom. More recently, publications such as Young Children (Rose & Smith, 1993), Education Week (Sack, 1999), Educational Leadership (Crockett & Kauffman, 1998; Lipsky & Gartner, 1998) and the Journal of Research in Childhood Education (Winter & VanReusen, 1997) contained
articles about inclusion. The debate about inclusion moved into the public forum and
genral education. Shanker (1996) proclaimed, “all children will suffer if the pressure
for inclusion eliminates valuable special education programs” (p. 2). Therefore, with
heightened awareness, the need for individualization of instruction, and the increasing
practice of including all children with disabilities in general education classrooms,
inclusion is considered a factor in educational reform (Pearman et al., 1997). Likewise,
Brady et al. pointed out schools and educators know how to include many more children,
but ambivalence toward changing school practices restrain inclusion. Consequently,
teacher beliefs, knowledge, and attitudes impact the success of all children reaching their
full potential.

Beliefs, Attitudes, and Knowledge

Introduction

Attitudes and beliefs are important elements in making effective changes. Idol
(1997) pointed out that unwelcome attitudes and beliefs of teachers about inclusion will
not just disappear but must instead be explored, shared, challenged, restructured, and
rethought in safe professional environments. First, general concepts and definitions of
beliefs, attitudes, and knowledge are discussed. Following each of the general topics,
teachers’ and preservice teachers’ beliefs, attitudes, and knowledge related to inclusion
are presented. The focus of the present study is early childhood preservice teachers’
beliefs, attitudes, and knowledge about inclusion. However, there is limited information
related specifically to early childhood preservice teachers as a separate group.
Consequently, perceptions of preservice teachers in general are used for this literature
review. Finally, a synthesis of the points of likeness and difference between early childhood preservice teachers and preservice teachers in general is presented.

Beliefs

Preservice teachers’ [including preservice early childhood teachers] beliefs are formed before and during college through societal mechanisms such as the media, socialization processes from childhood to adulthood, self-expectations of themselves as future teachers, and schooling. Preservice teachers are experienced in and familiar with schooling, and from personal experience they form beliefs about school, teaching, and learning (Bird, Anderson, Sullivan & Sullivan, 1993; Richards, 1996; Tatto, 1998). If beliefs are left unattended, students incorporate new ideas into old frameworks, adopting strategies that match their preset belief orientations and use personal beliefs to comprehend teacher education courses and teaching experiences (Pajares, 1993; Richards). Similarly, “people are unable to change beliefs they are unaware they possess, and they are unwilling to change those they are aware of unless they see good reason to do so” (Pajares, p. 47).

Kagan (1992) stated “[t]eacher belief is a particularly provocative form of personal knowledge that is generally defined as pre- or inservice teachers’ implicit assumptions about students, students’ learning, classrooms, and the subject matter to be taught” (p. 66). Furthermore, implicitly held assumptions about students that teachers bring to teaching suggest teachers’ reliance on their own experience and prior beliefs. Consequently, the literature on teacher beliefs has expanded the definition of exemplary teaching to include teachers’ mental life (Kagan). Vital to the teaching process are
teachers’ abilities to make deliberate, interactive decisions, to explain theories, beliefs, and practice, and to reflect on their practice (Isenberg, 1990; Kagan; Pajares, 1993). In addition, Tatto (1998) explained reflecting and attempting to understand how teachers’ beliefs influence their teaching are important in teachers’ development, role conceptions, and practices. Because teachers’ beliefs influence teachers’ perceptions, judgements, and classroom performance, Pajares (1993) stated understanding the role and nature of beliefs the education students bring to teacher education is essential to understanding their decisions as preservice teachers and effectiveness as professionals.

Likewise, Jordan, Kircaali-Iftar and Diamond (1993) found teachers “hold differing but consistent and coherent belief systems about pupil difficulties which give rise to differing views of their responsibilities toward such pupils” (p. 49). Furthermore, Jordon et al. (1993) identified two specific beliefs – restorative and preventative – that influence teachers’ perception of their roles and responsibilities. Because teacher beliefs effect teaching in the classroom and assessment of children, it is important to acknowledge and understand the belief structures of preservice teachers (Charlesworth, Hart, Burts, Mosely, & Fleege, 1993; Kagan, 1992; Pajares, 1992; Rusher, McGrevin, & Lambiotte, 1992). Specifically, early childhood teachers reflect their beliefs about how children develop and learn through their teaching practices (Isenberg, 1990; Spodek, 1988)

Teachers’ Beliefs and Inclusion

Kagan (1992) stated two research agendas have provided most of the information about teacher belief. Kagan also reported “[t]hese are agendas concerning two special
forms of teacher belief: teachers’ sense of self-efficacy and content specific beliefs” (p. 67). Teachers’ self-efficacy relates to ones perception of ones own ability to influence students and perform professional tasks (Kagan; Weasmer & Woods, 1998), while content specific beliefs refer to teachers’ general approach to specific academic information. Furthermore, Weasmer and Woods explained teachers’ confidence in their ability to teach and their belief in students’ ability to learn is communicated to students verbally and non verbally, resulting in higher level, of student performance. Therefore, if teachers do not believe they are able to teach children with disabilities, they may not be successful in helping all children reach their full potential. Or, if they believe they are unable, they may not even try to accommodate the needs of children with disabilities who are placed in their general education classrooms (Kagan, 1992; Salend, 1999). On the other hand, building teachers’ sense of efficacy may help create change; in that if teachers believe they can make a difference in students’ performance, they are more willing to take responsibility for student failures as well as successes. Thus, teachers who have a greater sense of efficacy may be more willing to embrace new programs and new instructional approaches (Kagan, 1992; Peterson & Brietzke, 1994). The self-efficacy of teachers (generalized expectancy to perform professional tasks) may mean the success of inclusion and curriculum modifications for students with disabilities.

Likewise, Jordan, Kircaali-Iftar and Diamond (1993) analyzed both quantitative and qualitative data from 27 general education teacher interviews for evidence of the “restorative-preventative construct” and correlation to self-efficacy (p. 45). Teachers with preventative beliefs (i.e., teachers believe students’ problems are the result of the
environment, including instruction) had higher self-efficacy scores and preferred in-class consultative support. Conversely, teachers with restorative beliefs (i.e., teachers believe students’ problems reside largely in the student) had lower self-efficacy ratings and rated withdrawal of the pupils from the class as a more desirable solution than preventative teachers. Thus, “the restorative-preventative measures and the efficacy scales may be tapping into a larger factor, one associated with where teachers locate their responsibility for meeting the needs of students, in general” (Jordan et al., p. 61). Also, Jordan et al. (1993) suggested belief structures might be learned, in part, through interaction with others. Consequently, collegial interaction and training could influence teachers’ belief systems about their roles and responsibilities for meeting the needs of students with disabilities.

In addition, past research showed teacher beliefs influence the interpretation, implementation, and/or rejection of “change programs.” According to a review of literature by Eisenhart, Shrum, Harding, and Cuthbert (1988), beliefs can be organized within three domains according to teacher responsibility, expertise, and control. Research shows teachers often agree on the following beliefs:

- Teachers are responsible for creating an educational environment in which they can be nurturing, cordial, spontaneous, and eliciting of student work.
- Teachers want to protect the inviolability of the teacher’s classroom.
- Instructional activities that allow students to achieve visible success in learning are the most rewarding activities of teaching.
• Teaching activities directed toward developing students’ enthusiasm and ability to continue learning are more important than transmitting a particular subject matter.
• Teachers find sharing and cooperating with other teachers and colleagues an important duty.
• Teaching success is mysterious and beyond the teachers’ control.
• Much of a student’s success in learning activities is determined by the level of support or other resources from home.
• Teaching activities demand extra work, sometimes beyond what is humanly possible.
• Teachers do not believe themselves to be experts in the development of new curriculum materials or of standardized tests.
• Non-instructional business interferes with teaching. (Eisenhart et al.)

While these beliefs are not directly tied to inclusion, they affect the effectiveness of inclusion. In particular, the second belief, “the importance of protecting the inviolability of the teacher’s classroom,” would seem to directly relate to resistance to collaboration and team teaching with special educators. According to Eisenhart et al. (1988) “beginning teachers as well as experienced teachers hold the sanctity of their classroom inviolate, and regard visits by parents, the principal, or other teachers as declarations that something is amiss in their rooms” (p. 55-56). By sharing the responsibility for children with disabilities, teachers may believe they are not seen as capable.
Furthermore, if teachers believe that “teaching activities demand extra work, sometimes beyond what is humanly possible” (Eisenhart et al., 1988, p. 57), it seems reasonable that teachers may believe that making extra accommodations in classroom routines and instructional materials for children with disabilities is beyond their abilities and/or responsibilities (Pearman et al., 1997; Salend, 1999). As a matter of fact, in a qualitative study of 26 classroom teachers, Janney, Snell, Beers, and Raynes (1995) found teachers in their study were concerned about the “time and effort integration would require, how teachers would take on the additional responsibility without neglecting their other students” (p. 100). Likewise, teachers do not believe themselves expert in the development of modified curriculum or materials for students with disabilities (Eisenhart et al.; Pearman et al.; Schumm & Vaughn, 1992). For example, Pearman et al. found 85% of the respondents stated they were concerned or very concerned they were not adequately trained and 78% were concerned or very concerned about their ability to individualize instruction for diverse learners. Therefore, teachers may be reluctant to welcome students with disabilities because they do not feel capable of providing adequate support for them (Eisenhart et al.; Jordan et al., 1993; Pearman et al.).

Another belief that adds to teachers’ discomfiture in teaching students with disabilities is that “non-instructional business interferes with teaching” (Eisenhart et al., 1988, p. 58). In inclusion, general education teachers share or take responsibility for developing and implementing Individual Education Programs (IEP) for students with disabilities, as well as other detailed records required for students identified as needing special education. As an example, Pearman et al. (1997) reported 74% of their study
participants were concerned or very concerned they would not have enough time for additional paperwork required in inclusion. Eisenhart et al. reported teachers “resent being asked to take responsibility or develop expertise in order to manage these tasks” (p. 59).

Cottam (1997) reported a qualitative study of inclusive preschool programs revealed not only strong emotions and opinions but also ambiguous and uncertain opinions about inclusion. Participants’ values, beliefs, and attitudes about inclusion depended on how inclusive programs were implemented. In addition, Cottam found the ambiguity in interpretation of the term inclusion and the implementation of inclusion in programs reflected the complex relationship between beliefs and behaviors. All the people contacted espoused a belief in inclusion; however, inconsistencies between beliefs and behaviors compromised classroom membership for children and had serious consequences for children, families, and teachers involved in the programs (e.g., segregated placements, inadequate educational interventions, and feelings of incompetence on the part of educators).

Janney et al. (1995) pointed out “beliefs and attitudes can be changed through personal experiences that are processed in positive ways” (p. 111). Successful implementation of inclusion of students with disabilities in the general education classroom occurs when the beliefs of those who work in schools (e.g., general and special education teachers) change along with the school policies (Brantlinger, 1996; Isenberg, 1990; Janney et al.). In addition, changes in school policies must be supported through
opportunities for school personnel to develop and use new skills consistent with effective implementation of inclusion (Janney et al.).

Preservice Educators’ Beliefs and Inclusion

Research specifically addressing preservice early childhood educators’ beliefs about inclusion is not available; however, there is some research about general and special education preservice teachers’ beliefs. It is important to understand what preservice teachers believe about inclusion and children with disabilities if those beliefs are to be recognized and influenced in college courses as changes in beliefs have a direct relationship with changes in teaching practices (Tatto, 1998). Also, Richards (1996) reported that “much evidence exists that indicates students’ beliefs and perceptions can act as a filter for information presented in teacher education” (p. 1).

Brantlinger (1996) found teacher educators must consider the beliefs of their students and “seek antidotes for pervasive anti-inclusive beliefs” (p. 31). This qualitative study identified preservice teachers’ beliefs (n= 182 junior and senior majors and minors in special education) about pupil achievement that might influence their support for inclusion of students with disabilities in the general education classroom. Even though anti-inclusion beliefs are not unique to preservice teachers, the presence and persistence of these beliefs are likely to undermine inclusion efforts. Once anti-inclusion beliefs are recognized, “tactics might be developed to counteract their detrimental impact” (Brantlinger, p. 17).
Attitudes

Research on attitudes points out two major definitions of attitude. Many attitude theorists’ definitions center on a person’s positive (i.e., good, pro, favorable) or negative (i.e., bad, anti, unfavorable) feelings toward an attitude object. However, other theorists hold the view that attitude should be defined “as having several components with restricted definitions of these components” (Triandis, Adamopoulos, & Brinberg, 1984, p. 21).

The three components of the definition of attitude include: the idea, or cognitive component; the emotion attached to it, or affective component; and the predisposition to action, or behavioral component. The cognitive component is characterized by a network of thoughts used to categorize people and places as an attitude object at the center of this network. The affective component deals with the degree and strength of emotion, positive or negative, attached to the attitude object. “In fact, humans cannot think of many things without feeling some emotion. We are evaluative animals…” (Triandis et al., 1984, p. 22-23). The behavioral component of the definition of attitude reflects the social options of behavior that may occur toward the attitude object. The set of beliefs attached to an attitude object directs behavior and may reflect the kind of social situation involved and the kind of relationship between the people involved (Triandis et al., 1984).

In addition to the theoretical issues of definition between attitude theorists, some “assume that attitudes are related to behavior” and others “define it as just another response which may or may not be related to the behavior of interest” (Triandis et al.,
Thus, people’s attitudes may conform to their behaviors or attitudes may be acquired to justify what they do. Carter (1998) reported “attitudes as determinants of behavior can be negative or positive, depending on the perceptions held by the person, and the behavior he or she expresses pertaining to these perceptions” (p. 2). Negative attitudes about students with disabilities are more likely to prevail when preservice teachers have no concept of what a disability entails, no previous contact, and no opportunity to learn about the disability. On the other hand, positive attitudes toward persons with a disability are possible with increased contact and a greater variety of experiences with persons with a disability (Carter). Therefore, by identifying and studying attitudes, educators may better understand preservice teachers’ attitudes about teaching children with disabilities and change negative attitudes. In the following paragraph, Triandis et al. reasoned behavior and attitudes are reciprocal:

Attitudes predispose actions; actions shape attitudes. Viewed in a broad historical and cross-cultural perspective, individuals hold the attitudes that are most useful to them for effective social action in a particular historical period and a particular culture. These attitudes predispose their behavior, but when their behavior is shaped by contemporary events (e.g., new laws, social movements, travel to other countries, etc.), they acquire new attitudes. (p. 27)

Consequently, if behavior is related to attitude, then the kind of behavior that needs to be changed must be considered and identified. “One view is that the study of why people have particular attitudes is extremely important because only by designing change
procedures specifically for these attitudes can we have real attitude change” (Triandis et al., p. 30).

Teachers’ Attitudes and Inclusion

Research by Pearman et al. (1997) reported, “before demanding schools to include all children a lot of attitudinal process and changes need to be in place” (p. 18). However, other research shows attitude towards inclusion has changed very little over the years. Scruggs and Mastropieri (1996) reported a synthesis of 28 studies regarding over 10,000 teachers surveyed revealed little change in attitude about inclusion between 1958 and 1995. Throughout the synthesis, support for mainstreaming/inclusion was largely dependent on the intensity of mainstreaming and the severity level of students with disabilities. In addition, willingness to include students with disabilities did not differ by grade level, but did covary with the amount of additional teacher responsibility required (Scruggs & Mastropieri, 1996). Overall teachers agreed with the value of inclusion and the benefit to students, but had negative attitudes about including students with disabilities in their classrooms. In a recent study, Mastropieri and Scruggs (1997) reported two-thirds of the teachers they surveyed accepted the idea of inclusion, but only about one-half were willing to include students in their classrooms and thought the practice would be beneficial.

Likewise, Vaughn et al. (1996) reported the majority of the group of 64 teachers participating in the focus group interview study had strong, negative feelings about inclusion. Although a few teachers were optimistic about inclusion, grave concerns spanned the subgroups – elementary school, middle school, high school,
The teachers’ feelings were expressed as fears about academic success of all students, concern about lawsuits, and fears about workload and their expected roles.

Presuming attitudes are learned and are negative toward inclusion, professionals in special education believe that in order to change attitudes they must first be identified and studied. In order to facilitate the adjustment of persons with disabilities, it is important to “…educate school children, the general public, and educational personnel on the nature of disabled children (to the extent that differences exist) rather than to let each individual be guided by his or her own prejudices, preconceptions, and predilections” (Jones & Guskin, 1984, p. 16). Likewise, Odom and McEvoy (1990) wrote attitudes of professionals affect the potential success of inclusion; therefore, promoting positive staff attitudes is an issue to address.

Monahan, Miller, and Marino (1996) reported 72% of the responses in their survey indicated participants felt inclusion would not work because of resistance from general education teachers. Other data from the survey showed “75% of the respondents felt that general education teachers do not have the instructional skills and educational backgrounds to teach students with special needs” (Monahan et al., p. 8).

However, not all studies found teachers had negative attitudes toward inclusion. Schumm and Vaughn (1992) surveyed 775 general classroom teachers in elementary, middle, and high schools regarding their attitudes about planning for inclusion of students with disabilities. The results from this study showed teachers are willing to have students with disabilities in their general education classrooms as long as they do not exhibit
emotional or behavioral problems. Class size, lack of teacher preparation, and limited instructional time were cited as barriers to modifying planning for students with disabilities. However, in grade comparisons the study indicated elementary teachers were more likely to make instructional adaptations than were middle or high school teachers. In addition, middle and high school teachers often expected students who are “mainstreamed” should adapt to the curriculum. Schumm and Vaughn emphasized “teacher planning reflects the teacher’s perceptions of student performance, the goals of the curriculum, and teaching practices” (p. 82).

Likewise, Schmelkin (1981) assessed attitudes of graduate students who were general education teachers (n=40), special education teachers (n=40), and non-teachers (n=40) in regard to the academic costs of mainstreaming and the socio-emotional costs of segregation. The “Mainstreaming Opinionnaire” reflected relatively positive attitudes toward mainstreaming on both factors by all three groups. However, special education teachers view mainstreaming as academically less costly. Schmelkin pointed out attitudes toward mainstreaming are complex and multifaceted and listed other important aspects to be considered “including teachers’ perceptions of their ability to successfully integrate the handicapped into their classes, and their attitudes and perceptions of the support systems available to them” (p. 46). Likewise, Jamieson (1984) reported attitudes might be situationally specific due to many variables related to the environment and the student with disabilities. Consequently, an environmental approach to improving attitudes might be beneficial to educators (Gans, 1987).
Preservice Educators’ Attitudes and Inclusion

Preservice teachers may be disinclined to interact with students with disabilities because they are unfamiliar with the disability or not know students’ abilities aside from the disability. In other words, the preservice teacher may be unfamiliar with what is termed the “different and strange to them” (Carter, 1998, p. 1). As a result, one attitude that would be a barrier to successful inclusion is fear. “Certainly, fear or dislike of contact with handicapped persons would lead to resistance to mainstreaming and normalization” (Jones & Guskin, 1984, p. 2). More specifically, professionals and future professionals who have little experience with or training to teach children with disabilities may be fearful they may be unable to cope with the new responsibilities associated with students who have disabilities. In addition, they may fear the presence of students with disabilities “will lead to complications in their professional careers and personal failure or unhappiness” (Jones & Guskin, p. 2). The fear of professional repercussions may be an especially strong factor as students with disabilities are included in general education and expected to participate in the standard state and district-wide assessment programs or alternative assessments designed to measure knowledge acquired by all students, i.e. TAAS tests [IDEA, Sec. 612(a)(16), 1997; Knoblauch, 1998].

Warger and Trippe (1982) reported that student teachers (n=113) indicated a positive attitude toward mainstreaming. However, a 1988 review of literature reported a “conspicuous void relevant to preservice elementary teachers’ attitudes toward exceptional children” (Francis, 1988, p. 11). Francis stated the relatively few studies available investigated special education majors.
Wilczenski (1993) found that 233 undergraduate education majors in various stages of their program were favorable to the idea of including students with disabilities in general education classes if the inclusion did not inhibit their own or other students’ learning. Furthermore, advanced students’ attitudes were more positive than beginning students’ attitudes toward inclusion. However, following student teaching, the students’ attitudes toward inclusion significantly declined (i.e., were less positive).

In another study, Moisio (1994) surveyed 44 undergraduate education majors at Bowling Green State University in Ohio regarding their attitudes about inclusion. The sample included juniors and seniors - 20 students studying general education and 24 students studying special education. The percent of students in both groups agreeing with the statement “students with disabilities are best educated separately” was over 75%. However, the two groups varied on the responses to the statements “students will benefit from inclusion” and “separating and labeling are not necessary.” The majority (54%) of special education majors strongly agreed or agreed that students will benefit from inclusion, but 58% disagreed or strongly disagreed that “separating and labeling are not necessary”. In contrast, 75% of the general education majors agreed or strongly agreed that students will benefit from inclusion and 90% agreed that separating and labeling was unnecessary. Moisio recommended more investigations of preservice teachers’ attitudes are warranted due to the contradictory nature of some of the results.

Folsom-Meek (1995) surveyed preservice physical education teachers in 30 states regarding their attitudes toward teaching students with disabilities. The results showed favorable attitudes, with a mean total score of 3.51 on a 5-point Likert scale. However,
results also suggested a need for structured practical experiences to foster acceptance of students with behavioral and mild mental retardation.

Also, Andrews and Clementson (1997) found preservice teachers held more favorable attitudes about inclusion after active learning activities, but had doubts about the benefits of inclusion to all children and the ability of all teachers to effectively teach students with disabilities.

Knowledge

Blanton, Blanton, and Cross (1994) reported their research with general and special education teachers revealed the two groups possess different knowledge structures. These researchers suggested teacher education programs provide prospective general education teachers with clinical experiences and develop a collaborative model so special and general educators work together.

Beattie, Anderson, and Antonak (1997) reported students who completed an introductory special education course taught by a professor with a visible disability and were required to view videotapes that portrayed persons with disabilities in regular settings expressed significantly more favorable attitudes toward persons with disabilities than groups who only were taught by a professor with a visible disability or were required to view videotapes that portrayed persons with disabilities in a regular setting. However, the attitudes of the 433 individuals that participated in the study

Preservice teachers begin to acquire knowledge about schooling during grade school, middle school, and high school experiences and continue adding data to the early knowledge base as the students complete college courses and practicum experiences.
Respondents in a recent study by Pearman et al. (1997) reported educators are not adequately trained to work with and individualize instruction to meet the needs of students with disabilities. Furthermore, Wolery, Martin, et al. (1994) and McDonnell, Brownell, and Wolery (1997) found only 25% of preschool teachers worked with an early childhood special education teacher to meet the individual needs of children with disabilities included in their general education classes.

School reform efforts have proposed that future teachers attain knowledge and experience from practicing teachers along with university teacher educators. In a response to *A Nation At Risk* (National Commission on Excellence in Education, 1983), two major reports have promoted the idea of professional-school partnerships as a method of restructuring teacher education – the Carnegie Forum on Education and the Economy (1986) and the Holmes Group (1986). The Holmes Group and the Carnegie Forum emphasized that in order to prepare students for the future, schools, teachers, principals, and colleges of education must change to accommodate the diversity of the American Citizenry. Consequently, professional development schools (PDS) have been espoused as a remedy for the problems with teacher education (Goodlad, 1990). Minner, Varner, and Prater (1995) reported that preservice teachers “graduating from these programs are highly skilled, very confident, and well prepared to assume leadership roles in the schools where they will work” (p.57). Likewise, Clark (1995) stated the PDS is important in educating future teachers because the PDS model supports the students’ abilities to construct pedagogy skills, knowledge about the curriculum, and attitudes...
necessary to educate all learners. Therefore, if teacher education improves, teachers are better trained to meet the needs of all students.

The state of Texas organized teacher education programs as Centers for Professional Development and Technology (CPDT) (State Board for Educator Certification, 1999). The CPDT programs implemented field-based teacher education for future educators, which are referred to as professional development schools (PDS) at some Texas universities.

**Teachers’ Knowledge About Inclusion**

Vaughn et al. (1996) conducted a study of teachers using focus group interviews. The participants were special education teachers, general education teachers, Chapter 1 teachers, and teachers of the gifted from elementary, middle, and high school, who were not practicing inclusion but were likely to be affected by inclusion practices. The results of the study revealed no difference in the subgroups of teachers; consequently, responses were reported for the teachers as a whole. Teachers’ responses to what they knew about inclusion varied widely, but several teachers were concerned they were uninformed about inclusion and needed more understanding of teachers’ roles and expectations in inclusion models. The participants identified “lack of adequate teacher preparation” as one of the factors that would affect the success of inclusion. In addition, an implication for teacher education was teachers in this study felt preparation should begin at the undergraduate level with general education classroom teachers taking many courses in special education if inclusion is going to work (Vaughn et al.).
Likewise, Yasutake and Lerner (1996) found in a survey of 255 teachers (132 general, 91 special education, 32 other school personnel) “general education teachers were less knowledgeable about special education law, less skillful in working with students with disabilities, and make fewer teaching and testing accommodations in the classroom” (p. 1). In addition, in order to make inclusion placements successful for students with disabilities, general education teachers need practical training and support. For example, Lanier and Lanier (1996) investigated 28 general education teachers’ willingness to participate in inclusion immediately after taking a special education class and again 3 to 5 years later. They found teachers’ willingness to integrate students with disabilities into the general education classroom was improved with special education courses and remained stable with time and experience.

Houck and Rogers (1994) investigated special and general educators’ view regarding increased integration of students with specific learning disabilities in general education classrooms. Survey respondents (n = 788) included special education supervisors, general secondary and elementary education teachers, and LD (learning disabilities) teachers. Across groups, respondents expressed doubts about the skills of general education teachers to make needed instructional changes and over half of the participants “tended to disagree” or “disagreed” that general education teachers were willing to make needed adaptations.

Preservice Educators’ Knowledge About Inclusion

Whitworth (1999) pointed out “inclusivity” rather than “exclusivity” will characterize schools of the next century and one of the greatest barriers to inclusion is
preservice teacher training (p. 1). However, in a synthesis of research spanning nearly 40 years, there was no “improvement in teacher preparedness for mainstreaming/inclusion” (Scruggs & Mastropieri, 1996, p. 71). Furthermore, in a recent survey of teachers, about 25% or less felt they had sufficient training to implement inclusion (Mastropieri & Scruggs, 1997). Moreover, a qualitative study by Harvey, Voorhees, and Landon (1997) found few personnel preparation programs across the nation educated general or special education preservice teachers to work in inclusive settings. This research supports professionals who are advocating a unified early childhood/early childhood special education training model. By using a unified model of education, early childhood educators would have multiple competencies and be able to better meet the needs of the diverse population in their classrooms (Gargiulo et al., 1997; Harvey et al., 1997; Honig, 1996; Kemple et al., 1994).

Likewise, the Illinois Coalition on School Inclusion (1994) stated “separate faculties and separate departments send clear messages to young undergraduates preparing to be teachers” (p. 26). Special and general education students are taught separately; therefore, they learn in college that their roles are separate and the children they teach must be separated (Illinois, 1994; Miller, 1992; Villa et al., 1996; Whitworth, 1999). Consequently, if inclusion is to be successful for all involved, general and special education students must share a common core of basic skills and knowledge related to each discipline (Illinois; Villa et al.; Whitworth). For example, preservice preparation should address appropriate accommodations in curriculum, instructional activities and evaluation procedures, modification of materials, effective identification, development
and utilization of resources, various types of instruction (e.g., cooperative learning, peer tutoring, and collaborative training, previously described on pages 10-11), and experiences (Whitworth).

The Individuals with Disabilities Education Act Amendments of 1997 (P. L. 105-17) retain the provisions of previous laws (e.g., IDEA, P. L. 101-476); however, some modifications in P.L. 105-17 affect teachers and preservice teachers. Specifically, there are three particular areas that will impact preservice teachers as they prepare to teach in inclusive classrooms. One area of preparation for preservice teachers is knowledge of Individual Education Programs (IEP) because general education teachers will participate on the IEP team for students who are participating in general education classes (IDEA, 1997; Knoblauch, 1998). Another area of importance is the requirement for students with disabilities to participate in state and district-wide tests (IDEA, 1997; Knoblauch, 1998) or a suitable modification. The third modification of import to early childhood preservice teachers is the definition of ‘child with a disability’ for children in the early childhood years. A child aged 3 through 9 years may be included in special education services without a category label if the child is experiencing developmental delays (IDEA, 1997, Sec. 602). Consequently, early childhood preservice teachers need instruction and knowledge to prepare for including a diverse population of students.

The research varied on preservice teachers’ perceptions of adequate knowledge/training to teach in inclusive classes. Warger and Trippe (1982) reported student teachers (n=113) asserted they had the skills necessary to deal with the mainstreamed setting. However, beginning teachers in Blair’s 1983 study reported the
courses they had in college spent time describing handicaps and legislation rather than
the development of instructional activities for students with disabilities. Likewise,
Leyser and Abrams (1986) surveyed 400 special and general education teachers who had
finished their teaching practicum. They found both groups indicated a need for additional
training in several areas (e.g., communication, classroom management, evaluation, and
professional knowledge). Special education students indicated a need for specific skills.

In a study investigating Colorado educators’ concerns, Pearman et al. (1997)
reported training was perceived as a need at the preservice and inservice levels. These
researchers surveyed 558 elementary, middle, junior high, high school teachers and
administrative staffs utilizing a questionnaire composed of 51, 5-point Likert items, “The
School and the Education of All Students Scale.” Pearman et al. also emphasized a need
to rethink preservice teacher training so new teachers come to schools with the skills
needed to teach all students. Moreover, Jamieson (1984) noted greater amounts of
specific special education course work influenced more realistic attitudes about the
placement of children with disabilities. In addition, Volk and Stahlman (1994) reported
“teachers’ feelings about their competence to meet the educational needs of a
mainstreamed child had a critical impact on the quality of their programs” (p. 14). In
addition, teachers’ attitudes and feelings change as a result of train.

**Synthesis**

The literature review suggested teachers’ perceptions about inclusion of children
with disabilities in the regular classroom influence the effectiveness of their teaching. In
addition, lack of knowledge is a barrier. Consequently, it seemed expedient to measure
the extent of preservice teachers’ beliefs, attitudes, and knowledge so their educational needs might be addressed. Early childhood preservice teachers have many of the same characteristics, training, and needs as other preservice teachers. However, many early childhood programs emphasize the importance of individualizing instruction and meeting the diverse needs of individual children. The question remains: Do early childhood preservice teachers feel willing and prepared to include all children in general education classrooms? Also: Does participation in a professional development school program or anticipated classroom setting relate to students’ self-reported beliefs, attitudes, and knowledge about including students with disabilities?
CHAPTER III

METHODOLOGY

Introduction

The present study was undertaken to investigate attitudes, beliefs, and knowledge of early childhood preservice teachers about inclusion and to determine if attitudes, beliefs and knowledge were related to certain variables: sources of education (i.e., professional development school or traditional student teaching) and ideal setting to teach (i.e., inclusive, non-inclusive, or special education classroom). In order to effectively measure participants’ beliefs, attitudes, and knowledge about inclusion, they were asked to self-report their opinions using a Likert scale to rate attitudinal statements. Chapter III presents the sites, participants, research design, procedure, and instrument utilized in the present study. Each section first addresses the construct validity study and then the dissertation study. The exception to this system is the procedure outlining the step-by-step sequence including both the construct validity study and the dissertation investigation.

The current research was conducted in the state of Texas to provide a baseline and database of opinions of preservice early childhood educators’ beliefs, attitudes, and knowledge about the inclusion of children with disabilities in their general education classrooms. In addition, university educators may be able to use the data to facilitate preservice teachers’ identification of and change in any negative attitudes and beliefs regarding inclusion. Also, the self-reported knowledge of the preservice teachers may
confirm the effectiveness of strategies being used or enable educators to identify strategies to help preservice teachers meet the diverse needs of the children they will teach.

Sites

A large southern metropolitan university in Texas was the site used for the construct validity study. Factor analysis was used to analyze the data and assess construct validity (i.e., verification that the responses to inventory measured the respondents’ opinions about inclusion). Both master’s (n = 163) and doctoral (n = 164) level graduate classes (missing n = 5) in the College of Education were utilized in the construct validity study. The researcher administered inventories to graduate students in classrooms on and off campus to obtain a larger and more representative sample.

For the dissertation study, Texas universities with teacher education programs that offer an early childhood teaching endorsement/certificate were selected. In order to obtain a significant sample, a broad geographic area representing a variety of Texas higher education institutions was sought. Both private (3) and public (7) institutions made up the sample. The institutions represented both large and small universities in the state of Texas with varying numbers of early childhood education student teachers/interns (ranging from 4 to 57 in the Spring 2000 semester). The universities participating offered traditional education programs (3) where students took classes at the university then student taught for one semester and professional development school (PDS) programs (8—one site had both PDS and traditional) where the students spent two or more semesters in a field-based placement to complete course work and internships.
The selection of the participants for the dissertation study was on a voluntary basis. Faculty representatives from each university and college in the state of Texas offering an early childhood teaching endorsement/certificate were contacted to ascertain their willingness to assist in the present study. All who stated a willingness to participate were selected for the study. Participants from 10 Texas universities were included in the study. The universities were coded 1 through 10 for data reporting and represented diverse geographical regions of the state (regions: 2, 6, 7, 9, 10, 11, and 12 as designated by the State Board for Educator Certification, 1999).

Participants

The participants for the validity study included 332 graduate students (male: \(n = 78\); female: \(n = 250\)) enrolled in courses in the College of Education at a large southern metropolitan university in Texas. This number is based on the recommendation of five persons per item to ensure stable factors (Gorsuch, 1983). The criterion for selection of the participants was current enrollment (Fall semester, 1999) in a master’s or doctorate level class offered by the College of Education at the university. The purpose of the validity study, to obtain instrument validity, was explained to potential participants and they were assured confidentiality. The construct validity study measured the ability of the inventory to measure particular hypothetical constructs.

For the dissertation investigation, participants were female (\(n = 171\)) and male (\(n = 1\)) preservice early childhood education students at 10 Texas universities. The criteria for selection of the students were they had completed required education course work (e.g., methods and reading classes). were seeking teacher certification with an early
childhood emphasis, agreed to participate, signed the consent form, and completed the inventory. Participating early childhood education students were surveyed during their student teaching semester or final intern semester. All potential subjects were assured of confidentiality.

**Research Design**

The researcher used a survey instrument to collect data. The instrument was a modification of an opinion inventory by Anderson, Antonak, and Beattie (1992). The 66-item inventory was first administered to graduate students of a large southern metropolitan university in Texas for a validity study. After factor analysis, the revised inventory was administered to early childhood preservice teachers in Texas universities for the dissertation investigation. The research design for the present study was a non-experimental, quantitative descriptive and correlational study of people’s attitudes and beliefs (Vockell & Asher, 1995).

The data collected from the inventories for the studies was analyzed using the Statistical Package for the Social Sciences version 10 (SPSS v. 10) Statistical Data Analysis Computer Program. First, an exploratory factor analysis was used to determine construct validity of data collected from the validity sample. Later, the data collected from the preservice teachers in the dissertation investigation sample enabled the researcher to measure participants’ self-reported beliefs, attitudes, and knowledge about including students with disabilities in the general education classroom.
Instrument

The “Inventory of Opinions About People Who Are Disabled” (Anderson, Antonak, & Beattie, 1992) was modified and renamed “Inventory of Opinions About Persons with Disabilities” (IOPD) (Aldrich, 1999). The original instrument “Inventory of Opinions About People Who Are Disabled” was a four page, 3 part, 53 item, inventory packet (Anderson, et al., 1992). This survey combined two previously developed and analyzed instruments. First in the packet was the 23-item summated Scale of Attitudes Toward Disabled Persons (SADP) developed by Antonak in 1982. The SADP used a 6-point Likert scale ranging from disagree very much (-3) to agree very much (+3). In order to prevent a response bias, the statements were worded so that half required a disagree response to represent a favorable attitude toward people with disabilities. The statements in the SADP addressed general stereotypical beliefs and attitudes about persons with disabilities. The statements in the ORMS asked the respondents’ opinions concerning their beliefs and attitudes about inclusion of children with disabilities. The statements on the ORMS seemed to match the questions and purpose of the dissertation investigation. Wording was changed in some statements to reflect current terminology (e.g., “inclusion” was substituted for “integration”). In addition, statements were added to reflect the additional research emphasis about the knowledge of educators about the inclusion of children with disabilities in the general education classroom. Consequently, a construct validity study of responses to the instrument was conducted to determine whether the revised instrument continued to measure the desired constructs.
Beattie, Anderson, and Antonak (1997) reported “analysis of SADP data (Antonak, 1982, 1985; Benham, 1988; Chan, Hua, Ju, & Lam, 1984; Mathews et al., 1990; Roush & Klocklars, 1988) have indicated satisfactory psychometric characteristics” (p. 3). Beattie et al. (1997) reported the mean of the Spearman-Brown corrected split-half reliability coefficient was 0.78 (range of 0.71-0.81) and the coefficient alpha internal consistency coefficient was 0.81 (range of 0.76-0.88). In addition, analysis of the SADP by Antonak (1982) indicated three factorially derived subscales and satisfactory item statistics when the SADP was used to survey 225 individuals in courses at the University of New Hampshire. The analyses indicated satisfactory item characteristics, reliability, and internal consistency for scores on the total scale and subscale, and construct validity for the sample’s scores. Consequently, Antonak (1982) suggested utilizing the SADP for “measure of the primary dimensions of attitude toward disabled persons, and for the investigation of questions concerning their formation, structure, correlates, and modification” (p. 22). Likewise, Antonak (1984) reported two investigations of the construct validity of the SADP scores showed the survey was not influenced by the response bias factor of social desirability and measured three domains of attitude toward people with disabilities. Roush and Klocklars (1988) evaluated 120 subjects’ responses to the SADP and reported the Cronbach alpha internal consistency reliabilities were extremely high (0.82), with subscales ranging from 0.49 to 0.94. However, factor analysis of the subscore scales scores of SADP with scores on The General Disability Scale developed by Siller strongly suggested the two instruments were measuring different things.
The second part of the original inventory packet (pages 3 and 4) was the modified 30-item scale entitled; “Opinions Relative to Mainstreaming Scale” (ORM), originally developed by Larrivee and Cook in 1979. Beattie et al. (1997) reported “psychometric characteristics for the ORM scores have been satisfactory (Green, Rock, & Weisenstein, 1983; Larrivee, 1981, 1982) with Spearman-Brown corrected split-half reliability and alpha homogeneity coefficients of 0.92 and 0.89, respectively” (p. 249).

The Inventory of Opinions about Persons with Disabilities (IOPD) (modified Inventory of Opinions About People Who are Disabled plus researchers’ added statements) used for the validity study was a 66-item, self-report inventory to measure general attitudes about people with disabilities and specific attitudes about the inclusion of students with disabilities in general education classrooms. The directions for responding to the instrument emphasized the inventory was seeking the respondents’ opinions and there were no right or wrong answers. The first part of the instrument (page 1) requested personal information [e.g., age, gender, race, college majors, teaching field, ideal classroom setting, type of program (PDS or traditional), sources of information about inclusion, and kinds of experience with persons with disabilities]. The second part of the packet (pages 2-4) of the survey instrument was made up of the two questionnaires discussed above. The first questionnaire presented 23 opinions and ideas about persons who are disabled. The second questionnaire contained 43 statements concerning the inclusion of students with disabilities into regular classrooms.

For the dissertation study, a further revised version of IOPD was used. After factor analysis of the data for the validity study, the instrument was modified to include
only the 51 items that clustered in the 5 subgroups. In addition, the statements in the instrument were changed to reflect “people first language.”

Procedure

After locating an existing questionnaire, the researcher contacted the authors’ representative, Beattie, and obtained permission to use the “Inventory of Opinions About People Who Are Disabled.” The researcher chose an instrument previously used and evaluated to measure preservice teachers’ opinions to hopefully obtain more reliable data. Next, the researcher contacted a higher education faculty member (L. Daniel, personal correspondence, November 15, 1999) with expertise in scale construction to review the inventory and offer editorial suggestions. This individual noted that the items were content valid but suggested changing the design of response scale from a six-point continuous scale to a seven-point continuous scale. Daniel (personal correspondence) stated that because the item scores were to be treated as continuous data, a zero option should be included in the middle of the scale. (The previous version of the scale had used response options of –3, -2, -1, 1, 2, and 3.) Daniel (personal correspondence) explained:

One of the long-term debates about Likert response formats centers on whether the data are continuous or merely ordinal. Most methodologists feel it is okay to interpret scores from these items as continuous so long as the distance in each scale step is numerically equivalent.

The researcher obtained permission from Beattie to modify the “Inventory of Opinions About People Who Are Disabled.” First, the researcher asked to change the previous six-point scale to a seven-point continuous scale. Second, the researcher
requested to change “integration” to “inclusion” and to change language to reflect “people first language” to better represent the intent of the present research and to reflect contemporary terminology. Finally, the researcher requested permission to add 12 to 15 statements to sample participants’ opinions regarding knowledge of including students with disabilities in the general education classroom. Permission to change the instrument was emailed to the researcher by Beattie.

In order to collect instrument integrity data from a validity sample prior to collecting data from the dissertation investigation sample, permission was sought from professors at a large southern metropolitan university to administer the inventory in their classes. Next, the researcher sought human subject approval. The Institutional Review Board (IRB) approved the research request. The researcher administered the inventory in 12 classes and university faculty administered the inventory in 14 classes. Graduate students enrolled in education classes completed the IOPD during their classes in November and December 1999. The faculty members were given a letter explaining the instructions or the researcher told the students the instructions. Either the faculty member or the researcher reassured the students their cooperation was valuable and their participation was voluntary.

After administering the inventory for the validity study, each inventory was coded and the data were entered into SPSS. The next step was screening the input data through descriptive statistics exploration and search for data entry errors. A review was conducted of all the inventory responses with questionable data entries. Needed corrections to the data set were completed. An exploratory factor analysis was used to
determine the underlying constructs and possible subscales from the responses to the validity study (Thompson & Daniel, 1996).

Principal components factor analysis was run to obtain descriptive statistics of the 66 items (mean and standard deviation); a correlation matrix; and factor results showing initial communalities, eigenvalues, and scree plot. Next, a varimax rotated component matrix was produced for three-factor and four-factor solutions. A “parallel analysis” indicated a likelihood of as many as 7 or 8 factors (Thompson & Daniel, 1996). Consequently, several additional solutions were attempted, and a five-factor varimax rotated component factor solution was determined most interpretable. The five-factor matrix resulted in the most items accounted for without duplication in more than one component. The five factors extracted using a |.4| saliency cutoff were: “attitudes and beliefs about inclusion related to classroom instruction” (SADP # 16 & ORM # 2, 3, 5, 7, 9, 12, 13,14, 20, 22, 23, 26, 27, 29, 33); “attitudes and beliefs about inclusion and social adjustment” (SADP # 10,11, 15,19 & ORM # 4, 6, 16, 21, 24, 32, 34); “stereotypical attitudes and beliefs about persons with disabilities” (SADP 3, 7, 8, 9, 12, 13, 17, 18, 21 & ORM 26); “knowledge about including students with disabilities” (ORM 31, 35, 36, 37, 38, 40, 41, 42, 43, 44); and, “training to teach students with disabilities” (ORM 8, 18, 19, 25). Based on the findings of the factor analysis, the Inventory of Opinions About Persons with Disabilities was revised to 51 items for the dissertation study, with non-salient items being dropped from the revised version.

For the dissertation study, contact was made with faculty from each selected university in Texas to enlist their help in administering the inventory during a student
teacher meeting. The researcher made telephone calls and sent email messages to obtain the cooperation of university faculty members at 10 Texas universities. The IOPD was administered to student teachers/interns during April and May of the Spring, 2000 term. To increase faculty cooperation, the questionnaire was administered to students by the method desired by the cooperating faculty member. The researcher went personally to four classes and administered the instrument. The researcher mailed inventories directly to students at two universities. At four universities, a faculty representative administered the instrument. For one university, the researcher mailed the inventory to the cooperating faculty member who distributed the instrument to the student teacher supervisors for distribution to the student teachers. On the day the instrument was completed, the preservice teachers were told by the researcher, the faculty member, or by letter that their participation in the project was valuable to the researcher. Participants were also assured of confidentiality and told their participation in the research was voluntary.

The researcher emailed or called faculty or students who had not returned the inventory within two weeks. The reminders increased the number of surveys returned by 6, with a total of 175 returned.

As the inventories were returned, the researcher coded each one of the 172 useable inventories and entered the data in the SPSS v. 10 computer program. After all data were entered, the next step was screening the input data through a frequency descriptive exploration and search for data entry errors. A review was conducted of the inventory responses having any questionable data entries. Needed corrections to the data set were completed. An exploratory factor analysis was used to determine the underlying
constructs and possible subscale scores from the responses of these 172 persons (Thompson & Daniel, 1996). Principal components factor analysis was run after obtaining descriptive statistics of the 51 statements (mean and standard deviation). An inter-item correlation matrix was factor analyzed resulting in communalities, eigenvalues, and a scree plot. Next, a varimax rotated component matrix was generated for a five-factor solution based on the previous construct validity results. In addition, descriptive statistics, correlations, frequency distributions and discriminant function analyses were computed with the SPSS v. 10 program in order to address the study’s substantive research questions as stated in Chapter 1.
CHAPTER IV
RESULTS

Introduction

The purpose of the present study was to examine the beliefs, attitudes, and knowledge of early childhood preservice educators within the state of Texas about the inclusion of students with disabilities in the general education classroom. In addition, the present study added to the profession by refining an instrument to measure early childhood preservice educators’ opinions about inclusion. Preservice educators in their last semester of school (i.e., student teaching or final intern semester) in 10 Texas universities participated in the study. The return rate of the inventories was 70.85%, with data from the 172 useable inventories reported in this study (see Table 1).

Faculty from Texas universities, which have an early childhood education program were contacted and asked to participate in this study. Ten universities are represented in the research data. The researcher found the faculty and students for both the validity study and dissertation investigation were by and large very cooperative and helpful in completing the Inventory of Opinions About Persons with Disabilities (IOPD) which might indicate a more accurate measure of the participants opinions. The IOPD was either mailed or taken to each of universities by the researcher. Respondents were asked to indicate their level of agreement/disagreement with 51 statements related to their opinions about persons with disabilities and inclusion of students with disabilities, and to provide demographic information.
A demographic profile of the participants in the dissertation study was generated using descriptive statistics. The factors, which aided in addressing research questions 1 through 6, were derived using principal component analysis and varimax rotation with Kaiser normalization. The five resultant factors or subscales (based on additive subscales formed by summing salient items and dividing by number of items) were analyzed for mean, median, standard deviation, range, and minimum/maximum values. Pearson correlations were run between each pair of scores on the five subscales and to answer question 7. Canonical discriminant functions were computed using the five IOPD subscale scores as discriminators of program (PDS versus traditional training--question 8) and ideal teaching setting (inclusive, non-inclusive, special education--question 9). Discriminant function analysis is a statistical process, which allows concurrent consideration of multiple outcome variables as differentiated across two or more levels of a categorical independent variable (Vockell & Asher, 1995). The data analysis utilized the Statistical Package for the Social Sciences version 10 (SPSS v.10).

Table 1  Questionnaire distribution and returns

<table>
<thead>
<tr>
<th>University</th>
<th># Distributed</th>
<th># Returned</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (Traditional)</td>
<td>14</td>
<td>14 *</td>
</tr>
<tr>
<td>2 (CPDT)</td>
<td>4</td>
<td>2 **</td>
</tr>
<tr>
<td>3 (CPDT)</td>
<td>17</td>
<td>17 *</td>
</tr>
<tr>
<td>4 (CPDT)</td>
<td>44</td>
<td>29 ***</td>
</tr>
<tr>
<td>5 (CPDT)</td>
<td>57</td>
<td>18 ****</td>
</tr>
<tr>
<td>6 (CPDT)</td>
<td>16</td>
<td>15 ***</td>
</tr>
<tr>
<td>7 (Traditional)</td>
<td>8</td>
<td>8 ***</td>
</tr>
<tr>
<td>8 (CPDT)</td>
<td>32</td>
<td>27 ***</td>
</tr>
<tr>
<td>9 (CPDT)</td>
<td>34</td>
<td>28 *</td>
</tr>
<tr>
<td>(Traditional)</td>
<td>8</td>
<td>4 **</td>
</tr>
<tr>
<td>10 (CPDT)</td>
<td>13</td>
<td>13 *</td>
</tr>
<tr>
<td>Total</td>
<td>247</td>
<td>175</td>
</tr>
</tbody>
</table>
Legend

*  Researcher administered questionnaire to students
** Researcher mailed directly to students
*** Faculty member administered questionnaires to students
**** Faculty member distributed to student teacher supervisors to give to students

Demographic Profile

From the 10 participating universities, a total of 172 (female = 171, male = 1) early childhood preservice educators returned useable inventories. Ages of the participants ranged from 20 to 50 years, with the majority of the participants in the age range of 20 to 24 years (71.5%). The majority reported race as white (79.1%). Black Americans (5.2%), Asian Americans (7%), and “other,” which included Hispanics and Native Americans, (8.7%) were also included in the sample. Most participants were seniors in college (89.5%). A little over half of the participants indicated on the inventory they were participating in a professional development school (PDS) program (59.9%), even though, the numbers on Table 1 would reflect 85% are enrolled in a Center for Professional Development and Technology (CPDT)/PDS program (State Board for Educator Certification, 1999). Respondents reported a preference to teach in a non-inclusive classroom (55.8%) more often than in an inclusive classroom (39%).

Data Analysis

Principal components factor analysis was performed on the data from 172 participants to determine if the five-factor solution found in the validity study was
interpretable for this data set. Examination of the varimax-rotated matrix with four-
through six-factor solutions using a minimum saliency criterion of |.4| yielded a five-
factor solution as most interpretable. Factor I was named “Attitudes and Beliefs about
Inclusion Related to Classroom Instruction” (INSTRUCT; statements numbered 15, 16,
18, 20, 22, 23, 24, 25, 26, 29, 31, 32, 35, 37, 38, 41). Factor II was named “Attitudes and
Beliefs about Inclusion” (INCLUSIN: statements numbered 19, 30, 33, 40, 42). Factor
III was named “Stereotypical Attitudes about Persons with Disabilities” (STEREOTY;
statements numbered 2, 3, 4, 5, 7, 8, 11, 12). Factor IV was named “Knowledge about
Including Students with Disabilities” (KNOWLEDG: statements numbered 43, 44, 45,
46, 47, 48, 50, 51). Factor V was named “Teacher Training” (TRAINING: statements
numbered 21, 27, 28, 34, 39). The five factors were used to address research questions 2
through 6, which queried whether an instrument could be developed to effectively
measure beliefs, attitudes, and knowledge about inclusion, and seemed appropriate
subscales for the current version of the IOPD (see Table 2).

Table 2  Rotated Component Matrix*

<table>
<thead>
<tr>
<th>Statement #</th>
<th>Component</th>
<th>Component</th>
<th>Component</th>
<th>Component</th>
<th>Component</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q25 significant changes</td>
<td>.678</td>
<td>-.0419</td>
<td>-.01914</td>
<td>-.170</td>
<td>-.03323</td>
</tr>
<tr>
<td>Q31 behavior problems</td>
<td>.667</td>
<td>-.164</td>
<td>.292</td>
<td>.08105</td>
<td>-.01896</td>
</tr>
<tr>
<td>Q41 create confusion</td>
<td>.590</td>
<td>-.417</td>
<td>.276</td>
<td>-.07098</td>
<td>-.140</td>
</tr>
<tr>
<td>Q24 complete assign</td>
<td>.575</td>
<td>-.356</td>
<td>.173</td>
<td>-.132</td>
<td>.113</td>
</tr>
<tr>
<td>Q29 monopolize teacher</td>
<td>.574</td>
<td>-.313</td>
<td>.190</td>
<td>-.07007</td>
<td>-.219</td>
</tr>
<tr>
<td>Q37 increased freedom</td>
<td>.566</td>
<td>-.223</td>
<td>.213</td>
<td>-.02037</td>
<td>-.005563</td>
</tr>
<tr>
<td>Q15 special class</td>
<td>.561</td>
<td>-.8649</td>
<td>-.05439</td>
<td>-.136</td>
<td>-.08365</td>
</tr>
<tr>
<td>Q38 socially isolated</td>
<td>.486</td>
<td>-.308</td>
<td>.197</td>
<td>-.115</td>
<td>.129</td>
</tr>
<tr>
<td>Q32 special ed. teacher</td>
<td>.486</td>
<td>-.116</td>
<td>.330</td>
<td>-.185</td>
<td>-.158</td>
</tr>
<tr>
<td>Q26 harmful</td>
<td>.472</td>
<td>-.309</td>
<td>.205</td>
<td>-.05862</td>
<td>-.08295</td>
</tr>
<tr>
<td>Q18 detriment of others</td>
<td>.466</td>
<td>-.461</td>
<td>.229</td>
<td>.167</td>
<td>-.08236</td>
</tr>
<tr>
<td>Q16 teacher patience</td>
<td>.461</td>
<td>.209</td>
<td>.327</td>
<td>.09707</td>
<td>-.120</td>
</tr>
</tbody>
</table>
Q22 bad example    .461  -.340  .04610  .06720  -.01612
Q20 maintain order  .454  -.217  .393  .03299  -.005909
Q35 told exactly how .446  -.0688  .362  .03996  -.112
Q23 academic skills  .423  -.244  .201  -.135  .217
Q10 adverse effect   .366  -.356  .280  .01017  -.138
Q13 equal employment -.365  .09057  -.02874  .229  -.07482
Q1 willing to work   -.291  .229  -.120  .003054  -.116
Q30 social independence -.108  .700  -.02714  .116  .110
Q33 beneficial for students -.123  .660  -.134  .04585  -.0251
Q19 acceptance       -.08414  .652  -.08072  .04153  .175
Q42 promote acceptance -.154  .557  .05035  .229  .001872
Q40 every opportunity -.213  .478  -.180  .248  .06259
Q36 emotional development .404  -.464  .106  -.160  .208
Q17 academic growth   -.178  .343  .307  .07647  .001321
Q8 live with similar  -.03003  -.0692  .704  .07410  .008036
Q5 having children    .108  -.144  .584  -.07730  -.110
Q2 like children      .327  .08251  .579  -.195  .05041
Q7 driver’s license    .240  .04008  .503  -.08205  -.6934
Q11 repetitive work    .390  -.150  .489  .08046  .07333
Q4 institutions       .196  -.03925  .456  -.165  .141
Q3 criminal tendencies -.06557  -.07095  .438  -.06894  .273
Q12 deviant personalities  .319  -.236  .428  -.09345  .343
Q14 bizarre sexual activity  .322  -.08527  .332  -.171  .156
Q6 life outside institution  -.184  .172  -.325  -.02346  -.114
Q9 gainful employment  -.261  .182  -.296  .159  -.274
Q45 identify difficulty   .202  -.01643  -.07731  .717  -.04382
Q43 IDEA              .296  .172  -.155  .716  .01307
Q44 rights of parties   .198  .182  -.164  .684  .208
Q50 materials for diverse  -.171  -.01643  -.01316  .637  .106
Q47 modify instruction  .290  -.06500  -.06500  -.595  -.164
Q46 evaluate curriculum  .316  .132  -.318  -.494  -.02320
Q48 IEP               -.215  .09047  -.101  .466  .06246
Q51 collaboration      -.157  .221  -.04067  .446  -.317
Q49 modify environment  -.304  -.168  .007698  -.344  -.09641
Q34 ECE prepared       -.149  .127  .03497  .220  .703
Q28 EC courses        -.08229  -.08510  .190  .214  .659
Q21 ability of gen ed  -.05795  .192  -.01032  .06511  .649
Q27 sufficient training .05869  -.01458  -.02534  -.02511  .638
Q39 competent         -.246  .113  -.195  .460  .466

* Rotation converged in 14 iterations

Note: Extraction Method: Principal Component Analysis
Rotation Method: Varimax with Kaiser Normalization

Question 1

Five factors were yielded for the IOPD data using responses from both validity and dissertation study. In addition, with only a few exceptions, the items identifying each of the subscales for the dissertation study and the validity study were the same. Consequently, the inventory was deemed a reasonable measure of five constructs related to early childhood preservice educators’ self-reported beliefs, attitudes, and knowledge about including students with disabilities in a general education classroom. Results of the factor analytic studies were used to answer research question 1 - Can an instrument be developed to effectively measure preservice early childhood educators’ beliefs, attitudes, and knowledge about the inclusion of children with disabilities in their classrooms?

Questions 2 - 6

Scores on the five subscales were used to address research questions 2 through 6 as stated in Chapter 1. Subscale scores were computed for each of the five IOPD subscales using an additive scale logic (Pedhazur & Schmelkin, 1991). Specifically, scores on each salient item, as identified via the dissertation study factor analytic results were summated. These summated scores include “reverse scaling” of any items worded negatively (i.e., worded to reflect a more stereotypic or less contemporary view about individuals with disabilities). To allow for direct comparison, additive scores on each of the five scales were divided by the number of items in the respective scale such that all subscale scores ranged between –3 and 3. Analysis of frequencies from the data indicated the lowest mean was for the teacher training (TRAINING) subscale (-.09884)
(question 6: To what extent do preservice early childhood educators self-report they feel they are trained to implement inclusive practices in their general education classrooms?). The low mean for teacher training indicates a less positive attitude about training than about other aspects of inclusion. The highest mean was for the attitudes and beliefs about inclusion (INCLUSIN) subscale (2.0388) (question 4: To what extent do preservice early childhood educators self-report they have positive beliefs and attitudes about inclusion?). The high mean for inclusion might reflect social desirability influence on the participants. The mean for the stereotypical attitudes about persons with disabilities (STEREOTY) subscale was used to address research question 2 (To what extent do preservice early childhood educators self-report stereotypical beliefs and attitudes about persons with disabilities?). This mean was 1.28, indicating relatively positive attitudes about persons with disabilities. Research question 3 (To what extent do preservice early childhood educators self-report they have the knowledge to educate children with disabilities in their classrooms?) and research question 5 (To what extent do preservice early childhood educators self-report they fell prepared to instruct students with disabilities?) were addressed by consulting means, respectively on the knowledge about including students with disabilities (KNOWLEDG) and attitudes and beliefs about inclusion related to classroom instruction (INSTRUCT) subscales. These subscales had about the same means (+1) indicating preservice early childhood educators’ self-report they have some knowledge about inclusion and classroom instruction for students with disabilities. The results of these analyses are presented in Table 3.
Table 3  Descriptive Statistics

<table>
<thead>
<tr>
<th></th>
<th>INSTRUCT</th>
<th>INCLUSIN</th>
<th>STEREOTY</th>
<th>KNOWLEDG</th>
<th>TRAINING</th>
</tr>
</thead>
<tbody>
<tr>
<td>N Valid</td>
<td>171</td>
<td>172</td>
<td>171</td>
<td>168</td>
<td>172</td>
</tr>
<tr>
<td>Missing</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>Mean</td>
<td>1.1107</td>
<td>2.0388</td>
<td>1.2800</td>
<td>1.0528</td>
<td>-.0988</td>
</tr>
<tr>
<td>Median</td>
<td>1.1875</td>
<td>2.1667</td>
<td>1.3750</td>
<td>1.1250</td>
<td>.0000</td>
</tr>
<tr>
<td>Std. Deviation</td>
<td>.9952</td>
<td>.8389</td>
<td>1.0095</td>
<td>1.0409</td>
<td>1.3373</td>
</tr>
<tr>
<td>Range</td>
<td>4.81</td>
<td>4.00</td>
<td>4.13</td>
<td>6.00</td>
<td>5.80</td>
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<tr>
<td>Minimum</td>
<td>-1.81</td>
<td>-1.00</td>
<td>-1.13</td>
<td>-3.00</td>
<td>-3.00</td>
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<tr>
<td>Maximum</td>
<td>3.00</td>
<td>3.00</td>
<td>3.00</td>
<td>3.00</td>
<td>2.80</td>
</tr>
</tbody>
</table>

Legend:

INSTRUCT = Attitudes and beliefs about inclusion related to classroom instruction

INCLUSIN = Attitudes and beliefs about inclusion

STEREOTY = Stereotypical attitudes about persons with disabilities

KNOWLEDG = Knowledge about including students with disabilities

TRAINING = Teacher training

Histograms were used to summarize frequency distributions for data on the five subscales. Attitudes and beliefs about classroom instruction (question 5: To what extent do preservice early childhood educators self-report they feel they are trained to instruct students with disabilities?) (Figure 1) and stereotypical attitudes about persons with disabilities (question 2: To what extent do preservice early childhood educators self-report stereotypical beliefs and attitudes about persons with disabilities?) were represented by approximately normal curves (Figure 3). Attitudes and beliefs about inclusion (question 4) (Figure 2) and knowledge about including students with disabilities (question 3: to what extent do preservice early childhood educators self-report they have the knowledge to educate children with disabilities in their classrooms?) (Figure 4)
yielded negatively skewed distributions. Figure 2 illustrates presence of a ceiling effect for the attitudes and beliefs about inclusion subscale reflecting respondents’ overall positive attitude toward inclusion (mean = 2.04). The teacher training subscale (question 6) distribution shape was somewhat bimodal (Figure 5), with response peaks slightly to either side of the mean.

Figure 1    Attitudes and Beliefs About Classroom Instruction

Figure 2    Attitudes and Beliefs About Inclusion
Figure 3  Stereotypical Attitudes About Persons With Disabilities

Figure 4  Knowledge About Including Students With Disabilities
Question 7

Pearson correlations indicated statistically significant moderate to large correlations between the following subgroups at the 0.01 level (2-tailed): attitudes and beliefs about inclusion related to classroom instruction and stereotypical attitudes about persons with disabilities; attitudes and beliefs about inclusion and knowledge about including students with disabilities; and, knowledge about knowledge about including students with disabilities and teacher training (see Table 4).
Table 4   Correlations

<table>
<thead>
<tr>
<th></th>
<th>INSTRUCT</th>
<th>INCLUSIN</th>
<th>STEREOTY</th>
<th>KNOWLEDG</th>
<th>TRAINING</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pearson</td>
<td>Correlation</td>
<td>.594**</td>
<td>.567**</td>
<td>.244**</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td>.000</td>
<td>.003</td>
<td>.001</td>
</tr>
<tr>
<td>N</td>
<td>171</td>
<td>171</td>
<td>170</td>
<td>167</td>
<td>171</td>
</tr>
<tr>
<td></td>
<td>Pearson</td>
<td>Correlation</td>
<td>.292**</td>
<td>.350**</td>
<td>.244**</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.001</td>
</tr>
<tr>
<td>N</td>
<td>171</td>
<td>172</td>
<td>171</td>
<td>168</td>
<td>172</td>
</tr>
<tr>
<td></td>
<td>Pearson</td>
<td>Correlation</td>
<td>.196*</td>
<td>.324*</td>
<td>.1000****</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.011</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
</tr>
<tr>
<td>N</td>
<td>167</td>
<td>168</td>
<td>167</td>
<td>168</td>
<td>168</td>
</tr>
<tr>
<td></td>
<td>Pearson</td>
<td>Correlation</td>
<td>.21**</td>
<td>.324**</td>
<td>.1000****</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.001</td>
<td>.001</td>
<td>.782</td>
<td>.000</td>
</tr>
<tr>
<td>N</td>
<td>171</td>
<td>172</td>
<td>171</td>
<td>168</td>
<td>172</td>
</tr>
</tbody>
</table>

** Correlation is statistically significant at the 0.01 level (2-tailed).
* Correlation is statistically significant at the 0.05 level (2-tailed).

Legend:

INSTRUCT = Attitudes and beliefs about inclusion related to classroom instruction

INCLUSIN = Attitudes and beliefs about inclusion

STEREOTY = Stereotypical attitudes about persons with disabilities

KNOWLEDG = Knowledge about including students with disabilities

TRAINING = Teacher training
Question 8

Descriptive group statistics by subscale as related to type of training program, PDS or traditional, indicated little difference in the two types of training (PDS or traditional) (Table 5).

Table 5  

<table>
<thead>
<tr>
<th>Program</th>
<th>Mean (Unweighted)</th>
<th>Std Deviation (Unweighted)</th>
<th>Valid N (Listwise)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PDS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>INSTRUCT</td>
<td>1.0944</td>
<td>.9401</td>
<td>100 100.000</td>
</tr>
<tr>
<td>INCLUSIN</td>
<td>2.0217</td>
<td>.8160</td>
<td>100 100.000</td>
</tr>
<tr>
<td>STEREOTY</td>
<td>1.2913</td>
<td>.9625</td>
<td>100 100.000</td>
</tr>
<tr>
<td>KNOWLEDG</td>
<td>1.0900</td>
<td>1.0546</td>
<td>100 100.000</td>
</tr>
<tr>
<td>TRAINING</td>
<td>-.02600</td>
<td>1.3320</td>
<td>100 100.000</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Program</th>
<th>Mean (Weighted)</th>
<th>Std Deviation (Weighted)</th>
<th>Valid N (Listwise)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traditional</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>INSTRUCT</td>
<td>1.1638</td>
<td>1.0304</td>
<td>66 66.000</td>
</tr>
<tr>
<td>INCLUSIN</td>
<td>2.1086</td>
<td>.8313</td>
<td>66 66.000</td>
</tr>
<tr>
<td>STEREOTY</td>
<td>1.2652</td>
<td>1.0973</td>
<td>66 66.000</td>
</tr>
<tr>
<td>KNOWLEDG</td>
<td>.9905</td>
<td>1.0369</td>
<td>66 66.000</td>
</tr>
<tr>
<td>TRAINING</td>
<td>-.2424</td>
<td>1.3458</td>
<td>66 66.000</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Program</th>
<th>Mean (Unweighted)</th>
<th>Std Deviation (Unweighted)</th>
<th>Valid N (Listwise)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>INSTRUCT</td>
<td>1.1220</td>
<td>.9745</td>
<td>166 166.000</td>
</tr>
<tr>
<td>INCLUSIN</td>
<td>2.0562</td>
<td>.8207</td>
<td>166 166.000</td>
</tr>
<tr>
<td>STEREOTY</td>
<td>1.2809</td>
<td>1.0151</td>
<td>166 166.000</td>
</tr>
<tr>
<td>KNOWLEDG</td>
<td>1.0505</td>
<td>1.0456</td>
<td>166 166.000</td>
</tr>
<tr>
<td>TRAINING</td>
<td>-.080723</td>
<td>1.3399</td>
<td>166 166.000</td>
</tr>
</tbody>
</table>

Legend:

INSTRUCT = Attitudes and beliefs about inclusion related to classroom instruction

INCLUSIN = Attitudes and beliefs about inclusion

STEREOTY = Stereotypical attitudes about persons with disabilities

KNOWLEDG = Knowledge about including students with disabilities

TRAINING = Teacher training

A discriminant function analysis, using the five subscale scores as discriminators yielded a .980 Wilks’ lambda, $\chi^2(df=5) = .667; p>.05$, indicated a negligible statistical
effect for program type. The classification results showed only 57.8% of the original grouped cases were correctly classified (see Table 6).

Table 6 Classification Results

<table>
<thead>
<tr>
<th>Predicted Group Membership</th>
<th>Program</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>PDS</td>
<td>58</td>
</tr>
<tr>
<td></td>
<td>traditional</td>
<td>28</td>
</tr>
<tr>
<td>Original Count PDS</td>
<td>82</td>
<td></td>
</tr>
<tr>
<td></td>
<td>traditional</td>
<td>40</td>
</tr>
<tr>
<td>% PDS</td>
<td>58.0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>traditional</td>
<td>42.4</td>
</tr>
<tr>
<td>% traditional</td>
<td>42.0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>traditional</td>
<td>57.6</td>
</tr>
</tbody>
</table>

57.8% of original grouped cases correctly classified.

Legend:

INSTRUCT = Attitudes and beliefs about inclusion related to classroom instruction

INCLUSIN = Attitudes and beliefs about inclusion

STEREOTY = Stereotypical attitudes about persons with disabilities

KNOWLEDG = Knowledge about including students with disabilities

TRAINING = Teacher training

Question 9

Descriptive group statistics related to teaching setting (i.e., non-inclusive, special education, and inclusive) showed the highest mean for attitudes and beliefs about inclusion for participants who prefer to teach in inclusive classrooms. The lowest means for both non-inclusive classroom setting and inclusive classroom setting were for the subscale, teacher training (see Table 7).
Table 7  Group Statistics

<table>
<thead>
<tr>
<th>setting</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Valid N (listwise)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Unweighted</td>
<td>Weighted</td>
</tr>
<tr>
<td>Non-inclusive</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>INSTRUCT</td>
<td>.9409</td>
<td>1.0565</td>
<td>91</td>
</tr>
<tr>
<td>INCLUSIN</td>
<td>1.8260</td>
<td>.8742</td>
<td>91</td>
</tr>
<tr>
<td>STEREOTY</td>
<td>1.1717</td>
<td>1.0544</td>
<td>91</td>
</tr>
<tr>
<td>KNOWLEDG</td>
<td>.8352</td>
<td>1.1049</td>
<td>91</td>
</tr>
<tr>
<td>TRAINING</td>
<td>-.1736</td>
<td>1.3486</td>
<td>91</td>
</tr>
<tr>
<td>Special Ed</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>INSTRUCT</td>
<td>.9375</td>
<td>.6116</td>
<td>9</td>
</tr>
<tr>
<td>INCLUSIN</td>
<td>2.0741</td>
<td>.9246</td>
<td>9</td>
</tr>
<tr>
<td>STEREOTY</td>
<td>1.0000</td>
<td>1.1456</td>
<td>9</td>
</tr>
<tr>
<td>KNOWLEDG</td>
<td>1.7083</td>
<td>.5413</td>
<td>9</td>
</tr>
<tr>
<td>TRAINING</td>
<td>.4444</td>
<td>1.1907</td>
<td>9</td>
</tr>
<tr>
<td>Inclusive</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>INSTRUCT</td>
<td>1.3968</td>
<td>.8317</td>
<td>66</td>
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<td>INCLUSIN</td>
<td>2.3712</td>
<td>.6096</td>
<td>66</td>
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<tr>
<td>STEREOTY</td>
<td>1.4697</td>
<td>.9225</td>
<td>66</td>
</tr>
<tr>
<td>KNOWLEDG</td>
<td>1.2576</td>
<td>.9382</td>
<td>66</td>
</tr>
<tr>
<td>TRAINING</td>
<td>-.024242</td>
<td>1.3458</td>
<td>66</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>INSTRUCT</td>
<td>1.1220</td>
<td>.9745</td>
<td>166</td>
</tr>
<tr>
<td>INCLUSIN</td>
<td>2.0562</td>
<td>.8207</td>
<td>166</td>
</tr>
<tr>
<td>STEREOTY</td>
<td>1.2809</td>
<td>1.0151</td>
<td>166</td>
</tr>
<tr>
<td>KNOWLEDG</td>
<td>1.0505</td>
<td>1.0456</td>
<td>166</td>
</tr>
<tr>
<td>TRAINING</td>
<td>-.080723</td>
<td>1.3399</td>
<td>166</td>
</tr>
</tbody>
</table>

Legend:

INSTRUCT = Attitudes and beliefs about inclusion related to classroom instruction

INCLUSIN = Attitudes and beliefs about inclusion

STEREOTY = Stereotypical attitudes about persons with disabilities

KNOWLEDG = Knowledge about including students with disabilities

TRAINING = Teacher training
Canonical discriminant functions indicated a statistically significant (p<.01) Wilks’ lambda of .853 for Functions I through II, and a non-statistically significant Wilks’ lambda for Function II of .965 (p>.05). Based on these results, only Function I was deemed worthy of further interpretation. Standardized canonical discriminant function coefficients, showing pooled within-groups correlations between discriminating variables and standardized canonical discriminant functions, and discriminant function structure coefficients, showing correlations between each subscale score and the discriminant functions are illustrated in Table 8. For Function I, structure coefficients are most appreciable for the inclusion, instruction, and knowledge subscales, indicating the three groups were most distinguished by these variables.

Table 8   Standardized Canonical Discriminant Function Coefficients/Structure Matrix

<table>
<thead>
<tr>
<th>Function</th>
<th>I</th>
<th>II</th>
</tr>
</thead>
<tbody>
<tr>
<td>INCLUSIN</td>
<td>.183 (.929*)</td>
<td>-.270 (-.181)</td>
</tr>
<tr>
<td>INSTRUCT</td>
<td>.774 (.620*)</td>
<td>-.245 (-.386)</td>
</tr>
<tr>
<td>KNOWLEDG</td>
<td>-.018 (.602)</td>
<td>-.366 (.687*)</td>
</tr>
<tr>
<td>TRAINING</td>
<td>.373 (.179)</td>
<td>.783 (.459*)</td>
</tr>
<tr>
<td>STEREOTY</td>
<td>-.129 (.371)</td>
<td>.334 (-.439*)</td>
</tr>
</tbody>
</table>

* Largest absolute correlation between each variable and any discriminant function

Note: Function coefficients are presented first followed by structure coefficients in parentheses.

The discriminant function territorial map illustrated early childhood preservice educators choosing either non-inclusive or inclusive classroom settings were most distinguished across these variables on Function I. Early childhood preservice educators choosing a special education setting were not clearly distinguished from other participants. As indicated in Table 6, early childhood preservice educators choosing
inclusion settings had higher mean scores than those choosing non-inclusive settings on all three of the subscales, which contributed to the differences among groups results (i.e., inclusion, knowledge, and instruction--Figure 6).

Figure 6. Territorial Map

Canonical Discriminant Function 2

-3.0  -2.0  -1.0  0  1.0  2.0  3.0

Canonical Discriminant Function 1

90
Symbols used in territorial map:

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Group Label</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1 Non-inclusive</td>
</tr>
<tr>
<td>2</td>
<td>2 Special Ed</td>
</tr>
<tr>
<td>3</td>
<td>3 Inclusive</td>
</tr>
</tbody>
</table>

Classification results for setting (i.e., non-inclusive, special education, or inclusive classrooms) indicated that 48.2% of the original group cases were correctly classified indicating the five subscale scores, collectively, were reasonably effective in distinguishing differences among groups (see Table 9).

Table 9 Classification Results

<table>
<thead>
<tr>
<th>Setting</th>
<th>Original Count</th>
<th>Non-inclusive (%)</th>
<th>Special Ed (%)</th>
<th>Inclusive (%)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>45.1</td>
<td>28.6</td>
<td>26.4</td>
<td>100.0</td>
</tr>
<tr>
<td>Non-inclusive</td>
<td>41</td>
<td>26</td>
<td>24</td>
<td></td>
<td>91</td>
</tr>
<tr>
<td>Special Ed</td>
<td>1</td>
<td>5</td>
<td>3</td>
<td></td>
<td>9</td>
</tr>
<tr>
<td>Inclusive</td>
<td>17</td>
<td>15</td>
<td>34</td>
<td></td>
<td>66</td>
</tr>
</tbody>
</table>

48.2% of original grouped cases correctly classified.

Summary

This chapter has presented the results of statistical analysis of data collected to answer the research questions. A total of 172 preservice early childhood educators participated in this study. The demographic profile was generated using descriptive data provided by the participants. The majority of the respondents shared several characteristics: female (99.4%), 20-25 years old (71.5%), white (79.1%), college seniors (89.5%), PDS program (59.9%), and non-inclusive classroom setting (55.8%).
The results of the data indicated the early childhood preservice educators surveyed held above average self-perceptions on all factors. In addition, the program (i.e., PDS versus traditional) was not important in predicting the self-perceptions of the early childhood preservice educators in this study. However, the data indicated when self-selection of ideal classroom setting for teaching was the inclusive setting, the early childhood preservice educators were more positive in their self-perception on the five factors than those choosing non-inclusive.
CHAPTER V
CONCLUSIONS AND DISCUSSION

This study had two purposes: (1) to develop and validate an instrument and (2) to investigate the beliefs, attitudes, and knowledge of preservice early childhood educators regarding the inclusion of students with disabilities in the general education classroom. The study included development and validation of an instrument, which included five subscales measuring preservice early childhood educators’ beliefs, attitudes and knowledge about students with disabilities and their inclusion in general education classrooms. Early childhood preservice educators’ scores on these subscales were then examined in relation to teacher education program (i.e., PDS or traditional) and classroom setting (i.e., non-inclusive, special education, inclusive). As a result, the present research provides insights into the opinions of preservice early childhood teachers about inclusion. Results of measuring attitudes, beliefs, and knowledge about inclusion furnish direction for professional preparation of future teachers (program models) and for changes in teacher education programs (i.e., planning instruction and field experiences).

Summary of Procedures

The present research was conducted in public and private universities throughout Texas. Faculty at various sizes and locations of universities were contacted and asked to assist in the dissertation study.
An existing instrument was modified and renamed by the researcher, Inventory of Opinions About Persons With Disabilities (IOPD) to gather information for this study. The IOPD was tested for score validity prior to use. The instrument was comprised of two parts: 10 demographic items and 51 statements concerning inclusion. Survey instruments were distributed to student teachers and interns in their last field experience semester. A total of 172 useable instruments were returned.

Data for the dissertation study from the IOPD were compiled and analyzed. Descriptive statistics were used to generate a demographic profile of the participants. Principal components factor analysis of the data found five interpretable factors. Canonical correlation analysis was used to determine the extent to which program and setting related to the five factors.

Summary of Major Findings

The present research determined that an instrument, the Inventory of Opinions About Persons with Disabilities, could be developed to effectively measure preservice early childhood educators’ beliefs, attitudes, and knowledge about the inclusion of children with disabilities in their classrooms (question 1). The pilot/validity study and the dissertation investigation study yielded similar factors. Because there was little difference in the resulting subscales from the two data collections, it was concluded the Inventory of Opinions About Persons with Disabilities is a reasonable instrument for measuring preservice early childhood educators’ beliefs, attitudes, and knowledge related to self-perceptions of the constructs in the study.
Research questions 2 through 6 indicated early childhood preservice educators held positive self-perceptions about their beliefs, attitudes, and knowledge related to inclusion and students with disabilities. On a 7-point rating scale, between -3 and 3, there were no ratings less than 0 on any factor except training (-.10).

Pearson correlations indicated a moderate to large correlation between the IOPD subscales (question 7). Thus, indicating a similarity of respondents’ beliefs, attitudes, and knowledge about inclusion across all subscales.

Discriminant function analyses yielded a negligible statistical effect for type of program (PDS or traditional) and a statistically significant effect for setting (inclusive, special education, non-inclusive) (questions 8 and 9). Hence, beliefs, attitudes, and knowledge about including students with disabilities vary based on the setting in which early childhood preservice educators desire to teach, while these beliefs, attitudes, and knowledge are not appreciably different based on whether the preservice educator received training in a traditional or professional development school program.

**Implications for Practice**

The self-perceived positive beliefs, attitudes, and knowledge regarding inclusion and students with disabilities may be the result of a halo effect (Gall, Borg, & Gall, 1996). That is, participants rated themselves higher than might actually be the case. Therefore, a follow-up study with the same participants or a similar cohort of early childhood educators after the first and third years of teaching might yield a more accurate report of beliefs, attitudes and knowledge regarding inclusion. The results from the present study would suggest universities with preservice early childhood educators...
participating in the study are successfully training future educators to believe in inclusion and encouraging positive attitudes. However, the review of the literature revealed beliefs, attitudes, and knowledge varies greatly among research studies. Consequently, attention to identification of beliefs and attitudes and continued training and field experiences in inclusive settings are of utmost importance if preservice early childhood educators are to meet the needs of all children in their classes.

The professional development school model of training teachers is touted as more effective in training preservice teachers because they have the experience of putting theories learned in class into practice as they are learning. However, in the present study, the preservice early childhood teachers in the PDSs did not show an appreciable difference in the self-report ratings of their beliefs, attitudes, and knowledge about inclusion and students with disabilities. If belief structures are learned through interaction with others, the PDS might greater impact early childhood preservice educators’ beliefs, attitudes, and knowledge (both positively and negatively) depending on the classroom and school placement. Perhaps, the students need to have a focused approach in their classes and placements in successful inclusive schools and classrooms in order to impact their beliefs, attitudes, and knowledge about inclusion and students with disabilities.

Whether early childhood preservice educators’ are taught in traditional programs or PDS programs, in order to put beliefs and attitudes into practice, they need opportunities to develop and practice new skills related to including students with disabilities in the general education classroom. For example, they need active learning
activities (e.g., role playing an IEP meeting, modifying a lesson plan for specific special needs, and teaching a modified lesson); more and specific special education course work (e.g., modifying curriculum, environment, and assessment; implementing an IEP for a specific student; and, classroom management); clinical experiences in collaboration with special education students; and, supportive experiences in successful inclusive classrooms.

**Implications for Research**

Although the Inventory of Opinions About Persons with Disabilities is a good instrument and can be used to effectively measure preservice early childhood educators beliefs, attitudes and knowledge regarding inclusion and students with disabilities, it could be further refined and tested to address specific types and levels of disabilities. In addition, using a qualitative component (e.g., interviews, open-ended questions, focus groups) might broaden the scope of the data collected with the IOPD. Through interviews and focus groups, the researcher might find out specific areas in training, knowledge, and instruction that would guide the practice of educating future educators. Also, through follow-up or concurrent interviews, the researcher might obtain a more detailed account of course work and experiences with students with disabilities.

Furthermore, the IOPD could be used to measure other stakeholders’ (i.e., administrators, practicing teachers, different levels of undergraduate teacher education students) opinions regarding inclusion and students with disabilities. The IOPD could be used to conduct similar research nationally or with a similar cohort in another state.

The present study could be used as a baseline to compare against other
research if Texas universities implement a unified program of instruction for early
childhood and early childhood special education students. The IOPD might also be used
to measure early childhood preservice educators’ beliefs, attitudes, and knowledge after
implementation of specific intervention strategies aimed at increasing knowledge and
enhancing training in inclusive education.

As far as general implications for research, the researcher learned that
administering the inventory first hand increased the number of inventories completed. In
fact, when the researcher was further removed from the administration of the inventory,
returns declined proportionately.
APPENDIX A

PERMISSION TO USE AND CHANGE QUESTIONNAIRE
John R. Beattie  
The University of North Carolina at Charlotte  
Department of Counseling, Special Education, and  
Child Development  
College of Education  
9201 University City Boulevard  
Charlotte, N.C.  28223-0001

Dear Dr. Beattie:

Thank you for sending me copies of your research instrument, “Inventory of Opinions About People Who Are Disabled”. May I have your permission to use the “Inventory of Opinions About People Who Are Disabled” questionnaire for the research for my dissertation? I will give you, Ronald J. Anderson, and Richard F. Antonak credit using APA style.

Overall, the questionnaire meets the needs of my research. However, may I have your permission to change the rating scale to a 7-point scale and change the wording, i.e. “integration” to “inclusion” to better fit my research questions? Also, may I make changes in statements to implement “people first” language? In addition, may I add a few items to survey respondents’ opinions regarding their training?

Your help in this matter will be appreciated.

Sincerely,

Jennifer Aldrich
921 Brown Trail  
Coppell, TX 75019  
January 30, 1999

John R. Beattie  
Department of Counseling, Special  
Education, and Child Development  
University of North Carolina at Charlotte  
Charlotte, NC 28223

Dear Dr. Beattie,

I am a doctoral student at the University of North Texas in the Early Childhood Education Program (my minor is Special Education). I teach early childhood education students and have been concerned about their readiness to include children with disabilities into their classrooms. The topic for research for my dissertation has to do with the beliefs and attitudes of preschool early childhood educators regarding the inclusion of children with disabilities into the general education classroom. During my literature search I found your article “Modifying Attitudes of Prospective Educators Toward Students with Disabilities and Their Integration into Regular Classrooms”.

I found your research interesting and relevant. I would like to obtain a copy of the two instruments (Scale of Attitudes Toward Disabled Persons and your revised copy of the Opinions Relative to Mainstreaming Scale) that you used in your study. Please send the instruments to the above address.

I will appreciate any help you may offer and look forward to hearing from soon.

Sincerely,

Jennifer Aldrich

[Handwritten note: Jennifer, your letter arrived. I hope this helps in some way. Best, John Beattie]
Hi Jennifer,

I did receive your letter and I am glad you sent me an email follow-up!! The letter got sucked into the vacuum that is my desk.....

Anyhow, please feel free to use the instrument and make the changes noted in your letter.

Good luck. Hope all works well.

My Best,

John
APPENDIX B

STUDENT CONSENT

SURVEY QUESTIONNAIRE

STUDENT FOLLOW-UP FORM
Student Consent Form

I, __________________________, agree to participate in a project interested in preservice teachers perceptions of students with disabilities. As a participant, I understand that I will be expected to complete one questionnaire that will require a total time commitment of between 10 – 15 minutes.

I have been informed that there is no way that individual questionnaires will be able to match my name to questionnaires completed by me. Results of this project will not report the responses of any one individual, but will utilize group averages and statistics. Individual results will not be made available to anyone. Under this condition, I agree that any information obtained from this research may be used in any way thought best for publication or aggregate education.

I understand that there is no personal risk or discomfort directly involved with this research. My participation is completely voluntary, and I am free to withdraw my consent and discontinue participation in this study at any time without penalty, prejudice, or loss of benefits.

If I have questions or problems that arise in connection with my participation in this study, I may contact Jennifer Aldrich, the project director, at (940) 565-2920.

Date __________________________ Signature of Participant

Date __________________________ Signature of Witness

Date __________________________ Signature of Researcher

THIS PROJECT HAS BEEN REVIEWED AND APPROVED BY THE PROTECTION OF HUMAN SUBJECTS (940-565-3940)
Inventory of Opinions About Persons With Disabilities

GENERAL DIRECTIONS

Educators have long realized that one of the most important influences on a child's educational progress is the classroom teacher. The purpose of this inventory is to obtain information that will aid in determining how to increase the classroom teachers' effectiveness with students with a disability who may be placed in his or her classroom. This packet contains general statements about people with disabilities and statements that concern the inclusion of children with disabilities in the general education classroom. There are many differences of opinion; many people agree and many people disagree with each of these statements. We would like to know your opinion about them.

There is no time limit for the completion of this inventory, but you should work as quickly as you can. Please respond to every statement.

Please provide the personal information requested below. This information is needed for data analysis only. All responses are kept strictly confidential.

1) Today's date: __/__/__
2) Age last birthday: ______
3) Sex: __ M __ F
4) Race: __ Black/African Am. __ White __ Asian __ Other (specify): ______________________
5) Educational level (Check only one):
   _ College Junior _ College Senior _ Bachelor's Degree _ Master's Degree
6) Early Childhood Education College Program: _ Professional Development School _ Traditional
7) Undergraduate Major: ____________________ Teaching Field(s)/Endorsement(s): ____________
   Graduate Major: _________________________
8) Ideal grade to teach: ____________________
9) The setting you would ideally like to teach in (check one):
   _ Non-inclusive Regular Education _ Special Education _ Inclusive
10) Sources of knowledge about students with disabilities and inclusion of these students in general education classrooms (check each one that applies):
    _ independent reading
    _ college course(s) offered by the Special Ed. Dept.
    _ personal experiences
    _ information included in general education courses
    _ college course(s) in departments outside education - List: _______________________
    _ information in early childhood courses
    _ workshops
    _ other (specify): ____________________
11) Do you know a person or persons with a disability? If "Yes," in what ways do you know this
    person or persons (Check all that apply):
    _ Your: _ Self _ Spouse _ Child _ Sibling _ Relative (specify): ______________________
    _ Other: _ Client/patient _ Student _ Co-worker _ Employee _______________________
    _ Neighbor _ Acquaintance (specify): ______________________

Jennifer E. Aldrich

(Adapted from: Ronald J. Anderson, Richard F. Antenski, John R. Beattie, Jr. (1993) with permission from Beattie)
Opinion inventory

Directions: Please circle the appropriate number, from -3 to +3, that best describes your agreement or disagreement with each of the following statements concerning persons who are disabled. There are no correct answers. The best answers are those that honestly reflect your feelings. Please respond to every statement.

KEY
+1: I agree a little
+2: I agree pretty much
+3: I agree very much
0: I neither agree nor disagree
-1: I disagree a little
-2: I disagree pretty much
-3: I disagree very much

1. Most persons with disabilities are willing to work.
2. Persons with disabilities are in many ways like children.
3. Persons with disabilities need only the proper environment and opportunity to develop and express criminal tendencies.
4. Adults with disabilities should be involuntarily committed to an institution following arrest.
5. Persons with disabilities should be prevented from having children.
6. Individuals with disabilities are able to adjust to life outside an institution.
7. Adults with disabilities should be prohibited from obtaining a driver's license.
8. Persons with disabilities should live with others who are similarly disabled.
9. The opportunity for gainful employment should be provided to persons with disabilities.
10. Students with disabilities in regular classrooms have an adverse effect on other students.
11. Simple repetitive work is appropriate for persons with disabilities.
12. Persons with disabilities show a deviant personality profile.
13. Equal employment opportunities should be available to individuals with disabilities.
15. Students with a disability can best be served in special, separate classrooms.
16. The classroom behavior of a student with a disability generally requires more patience from the teacher than does the classroom behavior of a student without a disability.
17. The challenge of being in a general education classroom will promote the academic growth of the student with a disability.
<table>
<thead>
<tr>
<th>Opinion Inventory</th>
<th>KEY</th>
<th>Page 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>-3: I disagree very much</td>
<td>+1: I agree a little</td>
<td></td>
</tr>
<tr>
<td>-2: I disagree pretty much</td>
<td>+2: I agree pretty much</td>
<td></td>
</tr>
<tr>
<td>-1: I disagree a little</td>
<td>+3: I agree very much</td>
<td></td>
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</tbody>
</table>

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<td>-1</td>
<td>+1</td>
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</tr>
<tr>
<td>-3: 1 disagree very much</td>
<td>+1: 1 agree a little</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-2: 1 disagree pretty much</td>
<td>+2: 1 agree pretty much</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-1: 1 disagree a little</td>
<td>+3: 1 agree very much</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

34. Early childhood teachers are prepared to teach students with a disability.
35. Students with a disability need to be told exactly what to do and how to do it.
36. Inclusion will likely have a negative effect on the emotional development of the student with a disability.
37. Increased freedom in the regular classroom creates too much confusion for the student with a disability.
38. The student with a disability will be socially isolated in the general education classroom.
39. I perceive myself as competent to work with students with disabilities.
40. Students with a disability should be given every opportunity to function in the general education classroom where possible.
41. Students with a disability are likely to create confusion in the general education classroom.
42. The presence of students with a disability will promote acceptance of differences on the part of students without a disability.
43. I am knowledgeable about the individuals with Disabilities Education Act (IDEA) (P. L. 191-476).
44. I know the rights under IDEA of all involved parties: students, parents, teachers, schools.
45. I am able to identify areas of particular difficulty for specific learners.
46. I am unprepared to evaluate curriculum to determine appropriateness for students with disabilities.
47. I do not know how to modify the instructional program to accommodate a student with disabilities.
48. I can implement an Individualized Education Program (IEP) for a student with a disability.
49. I feel unable to modify the environment for a student with a disability.
50. I have knowledge of appropriate materials for diverse learning abilities.
51. I have the collaboration skills to communicate effectively with support personnel.
If you are willing to participate in a follow-up opinion survey after your first year of teaching, please detach this page, complete the information below, and turn in separately so that you may be contacted:

Name: ______________________________________________

Permanent Address: ______________________________________________
                  ______________________________________________

Phone Number: ________________   Email: ______________________

Permanent Contact Person & Email and Phone Number (i.e. parents):
                  ______________________________________________
                  ______________________________________________
APPENDIX C

LETTERS OF INSTRUCTION TO FACULTY AND STUDENTS
Jennifer E. Aldrich  
921 Brown Trail  
Coppell, TX 75019  
940-365-2920  
aldrich@coets.coe.unt.edu

November ___, 1999

Dear Dr. ______:

I am a doctoral candidate in the College of Education at UNT working with Drs. George Morrison, Larry Daniel, Bertrina Hildeeth, Rebecca Glover, and Linda Schertz. My dissertation research explores early childhood preservice educators’ perceptions about students with disabilities. For my dissertation research, I will be using the “Inventory of Opinions About Persons with Disabilities” questionnaire. I will be surveying early childhood education students who are student teaching or in their last semester of internship. I am requesting your help to implement my survey in your class at ____________.

If you choose to help me, this is what will happen:

1. I will come to your class at an agreed upon time or I will provide you with a packet of information to distribute in your class(es). This packet of information will contain an informed letter of consent, the “Inventory of Opinions About Persons With Disabilities”, and an envelope for students to return their completed questionnaires in confidence. The “Inventory of Opinions About Persons With Disabilities” should take students approximately 10 - 15 minutes to complete.

2. If you distribute the questionnaire, the envelope can be returned to me in an enclosed postage-paid, self-addressed envelope.

3. If you are willing to help, please respond and return the attached form.

I would like to thank you in advance for your kind assistance. I recognize that your time is valuable, and I appreciate your contribution to this project! If you have any questions about this project, please feel free to contact me.

Sincerely,

Jennifer E. Aldrich
____ Yes, I will help you.

____ No, I will not be able to help you.

____ I may be willing to help you, but I need to know more about this research project.

IF YES:

How many graduate students do you have in EDEE?

____ I will administer the questionnaire in my class.

____ I would like you to administer the questionnaire in my class, please contact me to schedule.

Method you would prefer to be contacted by in the future: ________________

Signature: ______________________

Comments: ______________________
Jennifer Aldrich  
921 Brown Trail  
Coppell, TX  75019  
940-565-2920  aldrich@coefs.cce.unt.edu

Dear Dr.

Thank you for taking class time to administer my questionnaire.

1. Please ask the students to fill out one student consent form, sign, and exchange with another student to witness. I need the completed one returned and they keep the blank copy.

2. Tell the students that on the first page they should fill in the information that will only be used for demographic data.

3. Page 2. emphasize that the students should read and quickly circle the number that most represents their opinions/perceptions about persons with disabilities.

4. Pages 3-4: The students should still read and then quickly respond to statements about students with disabilities in the general education classroom -- I am using the Individuals with Disabilities Education Act (IDEA) definition of a child with disabilities – a child with mental retardation, hearing, speech, language, or visual impairments, serious emotional disturbance, orthopedic impairments, autism, traumatic brain injury, other health impairments, or specific learning disabilities, and who by reason thereof, needs special education and related services.

5. The questionnaire takes most students about 15 minutes to complete the questionnaire.

6. Please put one signed copy of the consent forms and the questionnaires into the envelopes and place in the large postage-paid, addressed envelope.

Thank you again for your valuable time and help.

Jennifer Aldrich
Name: Dr
University:

___ Yes, I will help you.
___ No, I will not be able to help you.
___ I may be willing to help you, but I need to know more about this research project.

IF YES:

How many preservice early childhood students (student teachers or final intern semester) do you have in class? 

___ I will administer the questionnaire in my class.
___ I would like you to administer the questionnaire in my class, please contact me to schedule.

Method you would prefer to be contacted by in the future: ______________________

Signature: ______________________

Comments:
Dear Student Teacher:

My name is Jennifer Aldrich, and I am a doctoral candidate at the University of North Texas. As part of my dissertation research, I am investigating Early Childhood Student Teachers' beliefs, attitudes, and knowledge about the inclusion of children with disabilities in the general education classroom. I realize that this is a very important and hectic time in your life but I would really appreciate you taking 15 minutes to complete the attached survey. I need your opinions!

If you choose to help me, this is what will happen:

1. YOU will complete the consent form (ask a colleague to witness it).

2. YOU will complete the survey instrument. I want your opinion. There are no right or wrong answers to any of the statements. Choose "+3" if you most agree and "-3" if you most disagree.

3. YOU will complete the follow-up page if you are willing to be contacted after your first or third year of teaching.

4. YOU will turn in all the completed forms to Dr. __________ by ____________.

5. I will provide a selection of children's books so that you may select a book.

6. I will maintain confidentiality in recording and reporting the data. Your name will not be used in the research report and each respondent's questionnaire will be assigned a number for data analysis. The follow-up and consent forms will be separated from the questionnaires and stored separately.

From this research, I hope to gain new knowledge about student teachers' beliefs, attitudes, and knowledge about including students with disabilities in the early childhood
general education classroom, which ultimately may be used to improve preservice teacher preparation programs. I would like to thank you for your kind assistance. I recognize that your time is valuable, and I appreciate your contribution to this project!

Sincerely,

Jennifer E. Aldrich  
Early Childhood Education, Doctoral Student  
University of North Texas
REFERENCES


Cooper, M. G. (1998). Building a collaborative that will last. *Teaching and Change, 6*(1), 64-78


Harvey, J., Voorhees, M. D., & Landon, T. (1997). The role of the State Department in promoting integrated placement options for preschoolers: Views from the
field. Early Childhood Special Education. [On line]. Available:

www.elibrary.com/getdoc.cgi…507712@library_i&dtype=0~0&dinst=0


a statistically significant effect for preferred classroom setting (non-inclusive, special education, inclusive).

Further research with the same participants or similar cohorts at one and three years of inservice teaching could broaden the scope of knowledge regarding early childhood teachers’ opinions about inclusion and students with disabilities. In addition, including procedures for gathering qualitative data with the Inventory of Opinions About Persons With Disabilities might provide more specific information about individual beliefs, attitudes, and knowledge about inclusion.