

PARENTAL PERCEPTION OF SATISFACTION AND UNDERSTANDING
OF SPECIAL EDUCATION SERVICES

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The purpose of this study was to examine the satisfaction and understanding of parents of young children with disabilities in North Texas in regard to the special education services they receive through their local education authority. A mixed non-experimental research design utilizing the survey method was used to obtain the data collected from a sample of 230 parents with children with disabilities from preschool to elementary ages.

Factorial analysis techniques were first used to assess the validity of the 14 quantitative items by splitting the sample into 2 equivalent groups: the development group and the validation group. Exploratory factor analysis extracted 2 factors after eliminating 4 items: satisfaction and understanding. This 2-factor structure was confirmed in the validation group. The final 10-item survey demonstrated satisfactory reliability and validity.

Overall, parents were very satisfied with the special education services and reported a good understanding of those services. Two x two (number of children x years of services) ANOVAs were used to examine the differences on parental satisfaction and understanding. No statistically significant differences were found except that parents with 2 or 3 children were more satisfied than the counterparts with only 1 child in the special education program. This difference was practically meaningful.

Data provided by 4 open-ended questions revealed that parent training and communication were the most popular strategies mentioned as methods to increase parental understanding of the special education process.

The best sources of receiving special education information were ARD committees and

teachers/diagnosticians. Excessive and wordy paperwork was the least helpful source of information regarding receiving special education. Postal-mail and the ARD meetings with diagnosticians were the best methods of acquiring special education information.

Findings from this study, especially on the open-ended questions, suggested the special education program and services can be improved to better serve the parents and their children.

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CHAPTER I

INTRODUCTION

The Individuals with Disabilities Education Improvement Act (IDEIA) of 2004 provides the opportunity for parents to participate with schools in carrying out comprehensive strategies to improve educational results for children with disabilities. What parents think about their experience in special education, and what they want for their children, are important historical components of the federal special education law (Yell, 2005).

From the passing of the Education of All Handicapped Children Act (EAHC) of 1975 to the 2004 update of IDEA, federal law has empowered parents of children with disabilities with specific rights and responsibilities to participate in the decision-making processes of their children's educational needs and goals. In the context of interacting with the local education agency (LEA), the law allows parents to state their ideas with regard to their children's educational goals and placements, requires schools to consider the parents' contributions, and allows for judicial procedures if an agreement cannot be reached (IDEIA, 2004).

Current federal law gives parents the opportunity to sit at the planning table with professionals and express their ideas regarding what they consider to be the most appropriate education for their children (IDEIA, 2004). When a school district listens to parents in the planning process and is able to achieve positive collaborative results, the parents are able to be a positive influence in their children's education experiences (Epstein, Sonder, Simon, Salinas, Jansorn, & Van Voorhis, 2002). Not surprisingly, parental support of a child's education is a critical factor in student success (Albritton, Klotz, & Roberson, 2003; Epstein, 2005).

Prominent educational philosophers through the ages clearly state this belief of the important role of parents in early childhood education. Beginning with Plato and Aristotle in the

fourth century and progressing through the centuries to contemporary thought, parents are viewed as significant and powerful in affecting the education of their children, especially during the first six years of life (Aristotle, Burnet trans. 1703; Comenius, Jelinek trans. 1953; Dworkin, 1959; Epstein, 2002; Froebel, Hailman trans. 1887; Hall, 1921; Harrison, 1968; Locke, 1947; Montessori, Cirillo trans. 1956/1970; Pestalozzi, Norden trans. 1951; Plato, Cooper trans. 1997; Rousseau, Bloom trans. 1979; Vygotsky, 1978).

Most parents want honest and open communication from educators to build the positive partnerships they believe will be successful for their children (Blue-Banning, Summers, Frankland, Nelson, & Beegle, 2004; Singh, 2003). In order to meet needs, needs must be assessed. Valuable home support can be gained for the child's educational success through clarification of parent satisfaction with the school program and services, and determination of the extent of parent understanding of programs and processes, parental education and family supports (Epstein et al., 2002; Russell, 2003). The early years of the child's development are considered so important that Part C of the Texas Monitoring Report, conducted by the U.S. Department of Education's (U.S. DOE) Office of Special Education Programs (OSEP), states the following.

Part C (of IDEA) recognizes the need for early referral and short timelines for evaluation as development occurs at a more rapid rate during the first three years of life than at any other age. Early brain development research has demonstrated what early interventionists have known for years: that children begin to learn and develop from the moment of birth. Therefore, the facilitation of early learning, and the provision of timely early intervention services to infants and toddlers with disabilities are critical (Texas Education Agency [TEA], 2003, Spring, p. 4).

Cognitive theorist Jean Piaget stated that it was society's responsibility to establish the goals of the education provided. This comes about in two ways: first, by restrictions such as

language, opinion, the family or economic disadvantage; and second, by state or private institutions consulting with those involved, such as parents of students (Piaget, 1970).

Beginning in 1954 with *Brown v. Board of Education (Brown)* affecting educational law and proceeding to 2004 IDEIA, government agencies and parents have been involved in educational reform (Yell, 2005). The *Brown* decision, a civil rights gain for minorities, also provided students with disabilities equal opportunity for education (Lascarides & Hinitz, 2000; Yell). After the *Brown* decision was handed down in 1954, the National Defense Education Act of 1958 provided for the training of teachers for children with disabilities. Congress appropriated more funds for the training of teachers in the Expansion of Teaching in the Education of Mentally Retarded Children Act of 1958. The Elementary and Secondary Education Act (ESEA) of 1965 provided additional federal funds to improve the education of educationally disadvantaged students through Project Head Start that also included students with disabilities. The next year, Title VI of the Elementary and Secondary Education Amendments of 1966 provided funding of grants for programs working with children with disabilities. Title VI was replaced by the Education of the Handicapped Act (EHA) of 1970, which was to become the basis for most of the legislation that followed.

The first civil rights law to protect the rights of persons with disabilities was Section 504 of the Rehabilitation Act of 1973. The ESEA Amendments of 1974 provided funding for programs supporting work with disadvantaged children and those with disabilities. The following year, in 1975, the most significant piece of legislation to date was passed. The Education for All Handicapped Children Act increased the federal government's role in special education and established specific educational rights along with the promise of federal monies as incentives. The Education of the Handicapped Act Amendments of 1990, also known as the Individuals with

Disabilities Education Act (IDEA), provided major changes in the language of the law to person-first usage, broadened the definition of disabilities to include autism and traumatic brain injury, and set in place transition planning by age 16 to be included in the individual education plan (IEP). IDEA was restructured in 1997 and amended again in 2004 (Yell, 2005).

It is evident in federal legislation that the U.S. government agrees with early childhood educators that the early years are critical to learning and academic success (U.S. DOE, 2003). The U.S. Department of Education published its view of the importance of parental involvement in the Texas Monitoring Report:

A purpose of the IDEA Amendments of 1997 is to expand and promote opportunities for parents and school personnel to work in new partnerships at the State and local levels. Parents must now have an opportunity to participate in meetings with respect to the identification, evaluation, and educational placement of their child, and the provision of a free appropriate education to their child. Parental involvement has long been recognized as an important indicator of a school's success and parent involvement has positive effects on children's attitudes and social behavior. Partnerships positively impact achievement, improve parent's attitudes toward the school, and benefit school personnel as well (U.S. DOE, 2003, p.19).

While the recent No Child Left Behind Act (NCLB) of 2001 has had a significant impact upon education today, the impact upon the specific programs in special education is not as significant as was the IDEA legislation with all its precursors. The former legislation is focused upon achievement and quality of educational opportunity while special education law focuses more on access to general education curriculum, fairness of application and specific parental rights in decision-making. NCLB mandates that reasonable adaptations and accommodations will be provided during testing for the child served by special education programs (Wright & Wright, 2006).

The NCLB, "which reauthorized the 1965 Elementary and Secondary Education Act, signaled a fundamental and common-sense change in American education. Academic standards would be set by states, schools would be held accountable for

results, and the federal government would support both with increased resources and flexibility. All of these results point to the law's ultimate goal: steady academic gains until all students can read and do math at or above grade level, closing for good the nation's achievement gap between disadvantaged and minority students and their peers" (U.S. DOE, 2007, p. 1).

Definitions

For the purpose of this study, the following terms are defined as follows:

- ARD – Admission, review and dismissal, a series of meetings that begin (admit), update (review) and terminate (dismiss) the special education services in the public school system in Texas (TEA, 2003)
- Collaborative partnership – Parents and schools working together for the benefit of the student
- Disability – (1) Child with a disability means a child evaluated in accordance with §§ 300.304 through 300.311 as having mental retardation, a hearing impairment (including deafness), a speech or language impairment, a visual impairment (including blindness), a serious emotional disturbance (referred to in this part as “emotional disturbance”), an orthopedic impairment, autism, traumatic brain injury, an other health impairment, a specific learning disability, deaf-blindness, or multiple disabilities, and who, by reason thereof, needs special education and related services (34 CFR § 300.8a)
- IEP – an individual education plan developed by a team of federally mandated participants (Wright & Wright, 2006)
- IDEA – Individuals With Disabilities Education Act, a federal law updated in 2004 that protects the rights of persons with disabilities (Yell, 2005), and which increased the importance of the student's parents by (a) giving them rights in determining the makeup of the IEP committee members, (b) requesting their satisfaction with the pilot program of the three-year IEP, and (c) reiterating that the concerns of the parents be considered in the development of the IEP goals (IDEIA, 2004).
- Local education agency (LEA) – the local public school system in place at the state level, which receives state funding (Wright & Wright, 2006)
- Related services – term used in special education referring to developmental, corrective, or other supportive services that are required to assist a student with a disability to benefit from special education, such as physical, occupational or speech therapy (TEA, 2004)
- Young children – children from preschool through elementary ages. This definition was specific to the sample in the present study. Although some school campuses offered special education services for preschool and kindergarten children along with elementary-level children, the school district did not collect the information on child age. Therefore,

it was impossible to separate the conventional young children group (i.e., ages 8 and below) from the elementary grade group (i.e., Grades 4 – 6 or ages 9 to 11). They were collectively grouped into the elementary group as opposed to the secondary education group.

Purpose of the Study

The purpose of this study is to determine (1) the degree of understanding of parents of children with disabilities, preschool through elementary ages, with the special education process, (2) the level of satisfaction in parents of children with disabilities, preschool through elementary ages, with their experience in special education, and (3) to look at the parents' perspectives on understanding and receiving special education information as with any consumer group.

Importance of This Study

Parents can be viewed as consumers of education as they advocate for their children (Duncan, 2003). Women in the 19th century, as a consumer group, demanded child-training advice prior to the establishment of child development as a profession (Beatty, 2006). The parents' perspective as consumers is vital to successful educational programs and placements for their children (Lindsay & Dockrell, 2004; Perras, 1995). Assessing the views of different parent populations will provide a more appropriate and accurate understanding of parents' desires and needs (IDEIA, 2004; Westling, 1996). This type of information can be useful for schools in expanding and developing services they offer and for the purpose of making improvements to existing services.

This study adds to the growing base of knowledge in special education particularly related to parental satisfaction with the educational process and services received. Because some parents in the past have expressed concern that their children were excluded from educational experiences, parent involvement precipitated legislative reform over the past several decades that ultimately led to the survey model used in this study.

The results may also reveal parents' concerns and desires for change as well as ideas for improvements. It is hoped the results of this research study will be a catalyst for improvements in collaboration between parent and school, related to educational programs and services provided in the special education programs for children, by providing input to the school district implementing the survey. It may provide other schools the opportunity to look at parental input from the surveys to determine what changes or revisions need to be made to improve satisfaction among parents of students in special education programs.

This study is important to the field of early childhood education because it underscores the necessity of successful early intervention for children with disabilities through parental support of their educational goals. As the Texas Monitoring Report reported, the federal law (IDEA) intends to develop opportunities for parents and schools to work together in new ways at all levels. Input from parents is now a viable part of the student's educational goals at the planning table. Additionally, this study may reveal to educators what some parents want in order to develop better collaborative partnerships with their schools. Through better methods of communication between parents and schools, parents can better understand the information shared at the ARD meetings and their roles as part of the ARD committee.

CHAPTER II

REVIEW OF LITERATURE

The review of the literature began with parents' understanding of their roles in the educational programs of their children in special education and their perceptions of preferred program options. Then the needs of parents of students were examined in the literature, followed by parent satisfaction in educational placement, surveys of parents, and barriers to this satisfaction. Lastly, the legal framework underpinning special education services was summarized in regard to legislative background and needed improvements.

Parent Understanding in Special Education

The parents' perceptions can empower parent members of education teams to participate in the definition and outworking of specific aspects of federal legislation for their child (Bailey & Blasco, 1990; Ryndak & Downing, 1996). Seligman and Darling (2007) state the trend in society currently is toward consumer empowerment and not acquiescing to professional opinion as in the past. They also found that parents have more positive attitudes toward teachers than they do toward other professionals. When parents understand their roles in developing their children's educational plans, they can help fine-tune the specific programs developed by the individual education plan (IEP) committees to be exactly what is needed for children's educational accomplishments. Spann, Kohler and Soenksen (2003) reported that parents are now considered partners with the schools in developing their children's educational plans, which leads to a variety of positive outcomes including greater treatment gains therapeutically. Effective collaboration with parents can be a catalyst for success in their children's educational achievements (Epstein, 2001; Perras, 1995). Perras (1995) found a strong relationship between parent involvement in the educational process and parents advocating on behalf of their children.

When parents are asked what they want their children to learn, they have different concerns and want different services based on the age and severity of their children's disabilities (Westling, 1997). Parents of developmentally challenged students in Perras's (1995) research study expressed concern with the inclusive education placement in regular education, but preferred student placement in self-contained special education instead. Westling (1997) reported that parents are most concerned with the immediate nature of their children's needs and how to best address the needs and to access services quickly and efficiently. Educational concerns of parents are in the present time and not future-oriented. Parents desire a better quality of services for their children, safe environments, and adaptations or accommodations to programs in inclusive settings, such as physical education, art, or music classes (Fidler, Lawson, & Hodapp, 2003; Ivey, 2004; Lange, Ysseldyke, Lau, & Lehr, 1995). Lange & Lehr (2000) report that parents desire excellence in education for their children despite their children's individualized learning needs.

In a study of quality inclusion, Buysse, Skinner, and Grant (2001) reported that both parents and professionals considered quality in inclusive educational programs to be related to three areas: (a) the amount of training of the classroom staff, (b) the evidence of appropriate practices of the personnel in the classroom, and (c) the level of individualization of the program found in the classroom and in therapies. In order for the practices to be appropriate to the students as well as correctly individualized, the students' parents must be included in the development of the programs of instruction. For example, Downing and Rebollo (1999) found that successful integrated programs for children with disabilities in integrated physical education are dependent on sufficient teacher, parent and administrative support from the school district.

The people involved in the educational process are the keys to achievement, not simply the program or setting.

Collaboration with parents through open, honest communication is essential in obtaining the feedback that will enhance the inclusive program for the student (Blue-Banning, Summer, Frankland, Nelson, & Beegle, 2004; Russell, 2003; Singh, 2003). The majority of parents believe that mainstream inclusion is beneficial for their children, especially in the realm of socialization (Johnson & Duffett, 2002). Mothers of preschool children in integrated settings expressed concern that their children would be rejected by peers even though they desired the integrated settings for socialization purposes (Guralnick, Connor, & Hammond, 1995). Bronfenbrenner (2005) states that, even after development and implementation of the educational programs, parents need to be consulted for their suggestions and concerns related to their children's accomplishments.

Needs of Parents

Pinkus (2005) identified four needs of parents in building successful partnerships with professionals. Parents believed it was essential to have commonality of purpose, clarity of roles, equal importance of the partners, and some means of accountability. This study found that the lack of agreement in goals, and confusion with respective duties of the partners, were major roadblocks to effective collaboration. Able-Boone, Goodwin, Sandall, Gordon, and Martin (1992) reported that parents had a need for improved dissemination of information about the services that are available to them, while still feeling positive about their attempts in accessing services during the first three years of their children's lives. They also reported satisfaction in the area of developing individualized family service plans (IFSPs). These plans of care are developed with the early intervention service before children enter public school, and include

therapy services as well as educational components. Russell (2003) reported that, if the parents are not aware of programs and services, the quality and existence of the assistance becomes irrelevant. Support services personnel need to work in partnership with parents so the latter can have active roles in planning. The primary reason some parents have changed their children's programs was their perceived need for additional services and support (Freeman, Alkin, & Kasari, 1999). Parents reported on-going struggles to get appropriate services for their children (Summers, Hoffman, Marquis, Turnbull, Poston, & Nelson, 2005). When parents find out that more services or programs are available elsewhere, and if the parents believe these services or programs will benefit their children, they will move to the locations that provide additional help (Lange et al., 1995).

Mahoney, O'Sullivan, and Dennebaum (1990) asked parents to evaluate provision of early intervention services. The results show that services in the areas of child information, systems engagement, and family instructional activities were more likely to be provided than those in the areas of resource assistance and personal family assistance. Calhoun, Calhoun, and Rose (1989) asked parents of young children with severe and profound disabilities about their concerns about placing their children in center-based early intervention programs. Most of the parents reported that the decision to participate in an early intervention program was neither easy nor comfortable for them. Much of the discomfort in making the decision to participate was due to the parental necessity of accepting the seriousness and long-term nature of their children's disabilities. The degree of satisfaction in this study was related to the parents' comfort level with their children's diagnoses.

The stressors in parents' lives affected the comfort level that parents felt with the educational settings for their children (Lessenberry & Rehfeldt, 2004). The stress levels that

parents of children with disabilities experienced affected their levels of satisfaction with special education services. Mothers of children with developmental disabilities, autism, and behavioral disorders have been shown to have high stress levels (Lessenberry & Rehfeldt). Seligman and Darling (2007) found that a child's disability had adverse effects upon the family through marital stress, maternal stress, and a lessening of parental confidence. Parents of children with special needs struggle with the reality of nonfinite loss – “enduring loss precipitated by a negative life event or episode that usually retains a physical presence, a psychological presence, or both” (Bruce & Schultz, 2002, p. 9). Ultimately, Bruce and Schultz report this experience of loss can lead to a sense of disconnection from the mainstream of life.

Bruce and Schultz (2002) reported the need for careful attention to the manner of communication with parents to avoid further increasing stress levels. These parents experienced disruptions in attachment to the preconceived model of parenting, resulting in significant losses comparable to losses resulting from death. Interactions between professionals and parents, whether positive or negative, formed the basis for future collaborative trust (Seligman & Darling, 2007). Norris and Closs (1999) reported that some school staff were unaware that parents of children with serious medical issues were under multiple pressures not easily communicated. For example, increased financial expenditures were further compounded by the single incomes that resulted from keeping one parent at home with the child. Brookman-Fraze (2004) found that collaboration by professionals and parents on agreed needs of the children reduced parental stress. An assessment of parental stress helped to identify the support needs of the parents, thus enhancing the possibility of positive collaboration and leading to satisfaction with special education supports and services their children received in school (Brookman-Fraze; Lessenberry & Rehfeldt, 2004).

Parent Satisfaction

Research indicates that relationships exist between and among a variety of factors and satisfaction in the educational placements of students in special education. A survey conducted by the Region IX Education Service Center of the Texas Education Agency (TEA) found a trend indicating that the higher the level of education of the parents, the more dissatisfied the parents would be with their children's special education experiences (TEA, 2004). In contrast, Freeman, Alkin, and Kasari (1999) found a significant association between the mother's education beyond the bachelor's degree and a higher level of satisfaction with schools. However, this greater satisfaction did not lead to less desire for change relative to other parent groups.

Hamblin-Wilson and Thurman (1990) studied the views of parents of children with various disabilities about their satisfaction with the transitional processes from preschool to school programs. They found the satisfaction of parents was related to the amount of external support they received and how well they were prepared for the transitions in terms of how much information they had. They also found that most parents reported receiving more assistance from the early intervention programs than from public schools during the processes. Parents said that the early childhood specialists who work with children under age 3 were the most collaborative of all (Seligman & Darling, 2007).

Duhaney and Salend (2000) discovered a relationship between parental beliefs and their satisfaction with the school programs. Parents' attitudes toward placements were affected by their own beliefs about the curricular goals of the educational programs and the specific placements that would achieve those goals. The programs' abilities to meet those goals were important as to the individualized nature of the services provided. Another concern for parents was how the programs would impact their children's educational and social progress. The parents' values

determined their views of the placement decisions. Hunt and Goetz (1997) also found that parents were of the opinion that collaboration among school personnel, and building-wide curricular adaptations for students with disabilities, were essential to successful inclusion placements.

The U.S. Department of Education's (U.S. DOE) Office of Special Education Programs (OSEP) Continuous Improvement Monitoring Process (CIMP) is designed to focus resources on improved results for children with disabilities and their families. Because of complaints received from parents, OSEP began monitoring Texas special education programs and services in 2000. The TEA collected data during the public input process of CIMP during the summer of 2001, and found general dissatisfaction among parents. Based on the parents' responses, TEA submitted its improvement plans to OSEP prior to the review. In 2002, OSEP conducted a review in Texas to assess compliance with the Individuals with Disabilities Education Act (IDEA) of 1997. One area of concern in the review was the level of parent involvement as stipulated in Part B of IDEA of 1997. The Texas Self-Assessment document reported that parents were satisfied with special education services, based on recent parent surveys; however, areas needing improvement were identified. Two of the eight areas identified as needs were: "(1) to conduct parent surveys, create indicators to measure parent involvement and identify training needs, and identify mechanisms to increase parent involvement and (2) to consider languages other than English or Spanish, and accommodations when utilizing parent surveys" (TEA, 2003, p. 19).

As a follow-up to findings in the Texas Self Assessment, Region IX Education Service Center of TEA conducted a survey, *Statewide Survey of Parents of Children in Special Education Programs*, in 2004 in both English and Spanish (TEA, 2004, March). The results and

sample survey have been posted on the service center's Website. The survey included questions on the parents' understanding of the special education processes, their understanding of the legal components of the processes, and their levels of satisfaction.

Of the parents responding to the survey, 80% indicated they understood their roles in the legal process. The survey revealed 75% of the parents understood the roles of the admission, review and dismissal (ARD) committee and the IEP, while 14% of the parents were unaware that the general education curriculum was the starting point for developing the IEP goals. The survey found that 25% of the respondents did not understand how their children's placement decisions were made.

Responses regarding how well parents understood the explanations made at the ARD meetings showed that 80% of those completing the survey in English understood the explanations, while only 70% completing the survey in Spanish understood them. More than 25% of those surveyed did not completely understand their roles in developing the IEP. In response to the question of satisfaction with their children's educations, only 53% of parents were completely satisfied, with 35% reporting they were somewhat satisfied.

In the decision-making process, 61% of parents were very satisfied with their participation and almost 29% reported being somewhat satisfied. The survey found that 28% of the parents did not believe the ARD committees valued their input, and 40% did not believe modifications were being implemented in the classrooms. The open-ended questions provided responses indicating the need for better communication and more information in Spanish. According to Wilkinson, Ortiz, Robertson, and Kushner (2006), about 10% of students in preschool through Grade 12 enrollment in public school were English language learners (ELL) with limited English skills and parents with the same linguistic limitations. ELL students in

Texas were five times more likely to be in special education programs, and 80% were Spanish speakers (Wilkinson, Ortiz, Robertson, & Kushner).

The parents' top two responses to the question of the best sources of information were their students' teachers and the school their students attended. The worst sources of information were paperwork from the ARD and information received in the mail. From the surveys sent out in Spanish, parents wanted more information in Spanish and more teacher dialogue about their children's progress and needs. The most-needed type of information was availability of services. The discussion of the survey results concluded with a recommendation to conduct the survey again in three to five years (TEA, 2004, March).

In summary, at the July 2001 public forums of the OSEP Continuous Improvement Monitoring Process, Texas parents of children who received special education services through local education agencies (LEA) reported general dissatisfaction with the scope of educational services received. Lack of respect and cooperation, refusal of services, and inadequate support personnel were a few of the many areas of dissatisfaction noted at the meetings (TEA, 2002). Researchers found the satisfaction of parents was related to the amount of external support they received and related to their own beliefs and values (Duhaney & Salend, 2000; Hamblin-Wilson & Thurman, 1990; Hunt & Goetz, 1997)

Barriers to Satisfaction

Leiter (2004) noted that barriers to parent satisfaction with professional collaboration included a lack of training for professionals in the collaborative model, parents' lack of a full understanding of legal rights, and the personal limitations of parents related to work and home responsibilities. Lake and Billingsley (2000) noted a connection between conflict in the school and parents' perceptions of the school's view of their children with disabilities. Parents viewed

the schools in a negative light when they felt the schools looked at their children from a deficit perspective rather than seeing their children as individuals with strengths and abilities. Conflicts also arose when the parents felt they were devalued and treated in a condescending manner. Many families reported they were not given choices among related services, they were not consulted when changes occurred in services, and they did not receive the services requested (Spann, Kohler, & Soenksen, 2003).

Communication issues become a hindrance to successful special education programs when the parents feel the schools are not listening to them, or when parents feel they must agree out of respect for the professionals, not because they agree with the decisions made (Dabkowski, 2004). Miles-Bonart (2002) found less satisfaction by parents of children with physical disabilities when school staffs and parents interpreted needs differently. Linsday and Dockrell (2004) reported that parents thought they were not being heard concerning their children's needs, and that parents felt they had to struggle to obtain appropriate support services or placement for their children. Curtis (2005) reported that litigation brought by unsatisfied parents was a barometer evidencing the need for better collaboration with parents. Parents' non-adversarial attempts to have their students' needs met were not successful, thus necessitating more direct legal intervention.

Another barrier to achieving parental satisfaction is diversity in cultures represented in many school classrooms. Some cultural beliefs may lead parents to acquiesce to a team decision out of respect for professionals rather than from understanding what was discussed (Dabkowski, 2004). Lareau's (1989) ethnographic study of urban elementary schools suggested the existence of an unequal allocation of power among parents in the public schools. Those who could speak the language of the majority class in society were more involved in the education system.

Language diversity exists from the many cultures in current classrooms. According to Wilkinson, Ortiz, Robertson, and Kushner (2006), about 10% of students in preschool through Grade 12 enrollment in public school were English language learners who had limited English skills and parents with the same linguistic limitations. ELL students in Texas were five times more likely to be in special education programs, compounding the barriers to understanding for these parents through many different aspects of language.

Language barriers are not always of a linguistic nature. The use of professional jargon in educational settings has prohibited parents' active participation (Wright & Wright, 2006). The inability to understand the legal language used in the definition of terms in the educational documents can leave parents frustrated as well as confused. Different interpretations of perceived needs by different members of the IEP team also led to dissatisfaction among parents (Miles-Bonart, 2002). Even among English speakers, language preferences in specific word use and even the tone of voice of professionals created barriers to effective collaboration (Dabkowski, 2004).

Family economics has proven to be a barrier to positive results in collaborative procedures with the school (Lovitt & Cushing, 1999). Economic situations can affect parents' abilities to attend meetings and programs. Many parents cannot afford to take off work, or may not have any means of transportation other than relying upon family, friends, or neighbors to assist them. Some common barriers to effective collaboration mentioned by parents of preschoolers were their work schedules, the time of day the meetings were scheduled, and not having a babysitter available (Gordon & Miller, 2003; Rafferty & Boettcher, 2000). Laureau's (1989) ethnographic study found upper- and middle-income parents participated more often in the schooling process than low-income parents, perhaps because of a greater acceptance of

conformity to supportive roles with the school. Researchers reported that some teachers operated under the assumption that low-income parents could not participate in their children's educations, and tended to initiate contact with upper- and middle-class parents more often (García & Ortiz, 2006; Yap & Enoki, 1995). Though economic situations presented hindrances to effective collaboration between parents and schools, all parents, regardless of income or cultural background, wanted their children to do well in school (Henderson & Mapp, 2002).

Legal Framework

When schools see the potential of the parent as a partner in the legal process of developing their child's educational program, a more realistic and family-friendly outcome will result (Gallagher, Rhodes, & Darling, 2004). Parents' involvement in the educational processes of their children not only affected student achievements positively, but also improved the students' behaviors and increased the parents' satisfaction with the teachers (CACE, 1967; Greene & Tichenor, 2003; Singh, 2003). Parents in key roles laid the foundation for special education law as far back as the 1950s with *Brown v. Board of Education* (1954). This landmark case provided greater constitutional rights for minorities, including persons with disabilities, while also affecting many aspects of educational law and procedure (Case, 2000; Wang et al., 2004; Yell, 2005). In the 1960s, Giordano (2007) reported that a coalition of liberals and conservatives in education sought change in special education. Parents played the most important roles in this effort for change by pressuring lawmakers to pass legislation that would not only protect their children but provide needed definitions. The parents insisted upon regulating and financing special education (Giordano, 2007).

The 1970s campaign to improve education for persons with disabilities included parents along with professionals in education, law, science and medicine (Giordano, 2007). Only half of

the children needing special education services were receiving it, which led parents frustrated with the bureaucratic quagmire to take legal action (Giordano). Parents and guardians of seven children brought a class action suit, *Mills v. Board of Education*, against the District of Columbia Board of Education. In 1972, the federal district court mandated that a publicly supported education be provided for all children, and ordered procedural safeguards set in place. In 1974, the U.S. Supreme Court made a landmark decision in *Lau v. Nichols*. Justice William O. Douglas, delivering the opinion of the court, stated that no student should be denied access to the general education curriculum. Schools were required to eliminate any language barriers students held. The following year, the procedural safeguards of the *Mills* decision became the framework for the due process component of the Education for All Handicapped Children Act (EAHCA) of 1975. EAHCA provided a free, appropriate public education to all students with disabilities ages 3 through 21, including an educational bill of rights along with individualized instruction and uniform procedures. EAHCA was not implemented for two years because of lack of federal funding, but still provided advancements for persons with disabilities (Giordano). Yell (1998) stated that “Legislation since 1975 has served to clarify and extend the requirements of the EAHCA” (p. 63). The 1990 amendments to EAHCA included (a) adding autism and traumatic brain injury as separate classifications, (b) requiring transition plans by age 16, and (c) changing the language of the law to see the person first, which included a name change to the Individuals with Disabilities Education Act (IDEA). The 1997 amendments strengthened the role of parents, and encouraged parents and educators to seek mediation first to resolve differences (Yell, 1998). The 2004 reauthorization of the law, the Individuals with Disabilities Education Improvement Act (IDEIA), increased the importance of the parents by (a) giving them rights in determining the makeup of the ARD committee members, (b) requesting their satisfaction with the pilot

program of the three-year IEP, and (c) reiterated that the concerns of the parents must be considered in developing IEP goals (IDEIA, 2004).

The recent No Child Left Behind Act (NCLB) of 2001 has had a significant impact upon education today (Wright & Wright, 2006). The NCLB, “which reauthorized the 1965 Elementary and Secondary Education Act, signaled a fundamental and common-sense change in American education . . . children’s education needs are placed first -- where they belong” (U. S. DOE, 2007, p. 1). “NCLB enables teachers, parents and community leaders to work together to turn around chronically under performing schools. Together these policies provide an incentive to public schools to improve or lose their customers” (U. S. DOE, 2007, p. 13). NCLB shows a shift in thinking about parent involvement in four ways. NCLB requires multilevel leadership for involvement, it makes parent involvement part of the school organization, it recognizes shared responsibilities between educators and families, and it requires all families be involved (Epstein, 2005).

Improvements Needed

Recent research identified areas in which parents desired improvement in the intervention process for their children with disabilities (Duncan, 2003; Johnson & Duffett, 2002; Lindsay & Dockrell, 2004; Russell, 2003; Spann, Kohler, & Soenksen, 2003). These areas include the need for clarification in the services available and the need for a better understanding of the law. Lynch and Stein (1987) found a substantial need among parents for information about special education law and the rights of parents and students. The need for information regarding criteria used for identification and placement in special education was also identified.

Because federal law has changed many times over the last 30 years, parents have needed assistance in the interpreting and understanding of terminology, in addition to their parental

rights and responsibilities (Yell, 2005; TEA, 2004, March). The federal law has empowered parents in the development and implementation of their children's educational programs; however, some parents still remained confused and mystified by the process. Parental input today continues to improve the educational process for children with disabilities. Professionals in education should see their roles as diminishing the stress of parents with students in special education and enhancing the benefits of parent collaboration (Case, 2000; Wang, Mannan, Poston, Turnbull, & Summers, 2004).

Because of the frequent change in federal legislation over the past decades, educators need to find out what parents understand about the law and their legal rights in order to improve parental participation in the special education process. There is a need to reassess the areas for improvement identified by parents in the Statewide Survey conducted by TEA to see if progress has been made.

Research Questions

The purpose of this study is to answer the following research questions. These questions presume that a statistically significant change in group differences has occurred over the population under study. Additionally, the parental perspectives of improvement in understanding the special education programs and in the methods of receiving information about special education program were to be answered by the four open-ended questions:

1. What is the level of satisfaction in parents of children preschool through elementary age with disabilities in regard to their personal experiences with special education programs and services?
2. What is the degree of understanding in parents of children preschool through elementary age regarding various aspects of the special education process?
3. Will there be any group differences between parents of preschool through elementary age children with disabilities on satisfaction for the special education programs and services?

4. Will there be any group differences between parents of preschool through elementary age children with disabilities on understanding of the special education programs and services?
5. What are the parental perspectives regarding improvement in their understanding of special education programs and perspectives of the methods of receiving information about special education programs?

CHAPTER III

METHOD

Participants

The participants for the survey included 230 parents of early childhood and elementary special education students in a North Texas school district. Within this particular school district, there was broad ethnic and racial diversity.

Measurement Instrument

In the spring of 2005, the director of special education for the school district adapted questions for a survey from the *Statewide Survey of Parents of Students Receiving Special Education Services* developed by the Texas Education Agency (TEA) Region IX Education Service Center. The Region IX survey was disseminated in 2004 and included questions on the parents' understanding of the special education process, their understanding of the legal components of the process, and their levels of satisfaction. There were open-ended questions included to elicit qualitative information from the parents as well (TEA, 2004, March). The instrument used in this study was developed by the director of special education in a North Texas public school district – *Parent Survey, Department of Special Education*. It contained four parts (see Appendix A) and was based upon the *Statewide Survey* by TEA. The survey instrument was divided into four parts for analysis. Part 1 consisted of demographic information. The first three questions asked for the number of children receiving special education services, the number of years of special education services received by their children, and the campus where the children currently received services.

Part 2 of the survey contained four questions related to parent satisfaction with: (a) special education programs, (b) special education support services, (c) regular classroom

instruction received, and (d) the degree of participation in decisions affecting services and placement in a 4-point reverse Likert-type scale (1 = *Very Satisfied*, 2 = *Somewhat Satisfied*, 3 = *Somewhat Unsatisfied*, and 4 = *Very Unsatisfied*).

The next 12 questions in Part 3 evaluated the level of parent understanding of the following: (a) child eligibility, (b) referral for service process, (c) why a child was referred for testing, (d) child test results, (e) how the test results were used to determine educational plans, (f) parent role in the process, (g) parent role in developing the individual educational program, (h) how decisions were made regarding child placement and how and where special education services were provided, (i) the role of state-mandated testing for students in special education, (j) the role of the admission, review and dismissal (ARD) committees, (k) the explanations provided to the parent during the ARD meeting, and (l) the transition needs and services to be included in the ARD individual education plan (IEP) for students 14 years of age or older. A 3-point reverse Likert-type scale was used for the above questions (1 = *Completely Understand*, 2 = *Somewhat Understand*, and 3 = *Do Not Understand*).

The last part of the survey consisted of four open-ended questions asking each parent's opinion on the following special education processes: (a) increasing understanding of the process, (b) identifying the best source of information on the process, (c) identifying the least helpful source of information, and (d) identifying the best and most helpful way to receive and/or obtain information.

Procedure

In spring 2005, the school district sent the *Parent Survey* to the parents of elementary-level special education students by sending the surveys home with students. The surveys sent to the parents of secondary-level students were sent through the postal service. The completed

surveys were returned to the school district's special education department. A total of 2,003 surveys were sent to parents of special education students at elementary and secondary levels. From the early childhood and elementary programs, 233 surveys were returned, while 42 surveys were returned from the secondary level, yielding an overall return rate of 13.7%. Three of the 233 returned surveys from the elementary group were illegible and therefore unusable for this study, resulting in population size of 230.

Participation in the survey was voluntary. Individuals who responded were considered informed participants as the informed consent was explained in the survey. Parents were asked to give only information about how many of their children received special education services and the number of years their children received those services. Confidentiality was also maintained because of the absence of any identifying information on the survey forms, thus keeping the information anonymous.

The Statistical Packages

For confirmatory factor analysis, PRELIS™ data manipulation and basic statistical analysis software (Scientific Software International, Inc., Lincolnwood, IL, www.ssicentral.com) and LISREL® 8.54 structural equation modeling software (Scientific Software International, Inc., Lincolnwood, IL, www.ssicentral.com) were used. For all of the other statistical analyses, SPSS® statistical and data management package (SPSS Inc., Chicago, www.spss.com) 14.0 was utilized.

Assumptions

It is assumed the parents involved in this research study were informed of their rights under IDEA. This assumption is based on the Texas Education Agency (TEA) requirement that every parent receive this information at the initial ARD meeting (TEA, 2002). It was also assumed the local school notified parents of meetings and activities in their particular schools

and school district, and that teachers and administrators received prescribed training by video from TEA. Another assumption was that parents understood the meaning and use of the words “satisfaction” and “understanding” as described on the survey.

Psychometric Properties of the Instrument

Although the survey used in the present study was not systematically examined by content experts, its content validity appeared to be supported as it seemingly addressed various aspects of the content domain. In addition, a panel of experts reviewed the questions to determine face validity of the survey instrument. The committee included a professor from the Special Education Department at Texas Woman’s University, the chair of the Early Childhood Department at the University of North Texas, a special education director, an assistant director of special education, and a special education coordinator. They all concluded that the survey instrument did in fact appear to measure what it claimed to be measuring. Thus, the survey used by school district seemed to have face validity.

The entire elementary sample was split into two groups by matching the three demographic variables: number of children, years of receiving special education services, and location of the services. Ninety percent of the cases were perfectly matched on all three variables. The remaining cases were matched in the order in which the variables were listed above. The first group was used for exploratory factor analysis and the second group for confirmatory factor analysis. When the factor structure was equivalent and the internal consistency reliability was acceptable in both groups, it could be concluded the survey had demonstrated evidences of psychometric properties. The subsequent analyses based on the extracted factors from the development group were warranted.

Exploratory Factor Analysis

For any exploratory factor analysis, decisions on the selection of extraction method, rotation method, cutoff criterion of loading (i.e., structure coefficient) of an item on a factor, and number of factors are critically important. Because the widely used principal component technique relies on the assumptions of perfect reliability of the data (Thompson, 2004), another commonly used method – principal axes factor analysis -- was used for the selection of the extraction method in this study. “Principal axes methods acknowledge measurement error by iteratively approximating the communality estimates on the diagonal of the correlation matrix” (Thompson, 2004, p. 56).

The selection of the rotation method has been much data-driven. If the factors are highly correlated, an oblique technique such as promax may be appropriate. Otherwise, an orthogonal rotation method such as the popular varimax is suitable (Thompson, 2004). As the structure of the survey was unknown, this study started with the promax method.

Hair, Black, Babib, Anderson & Tatham (2006) stated: (a) factor loadings greater than $|\pm.40|$ are usually minimal, (b) loadings of $|\pm.50|$ and above have practical significance, and (c) loadings exceeding $|\pm.70|$ are “indicative of well-defined structure and are the goal of any factor analysis” (p. 128). In addition, cross-loading of an item (i.e., the item significantly loads on more than one factor) makes the interpretation difficult because of its indistinct associations with the factors, so Hair suggests deleting it. These rules guided the EFA process, in the present study, to develop the simple structure of the survey. The decision of item deletion was primarily based on weak loading or cross-loading. In EFA, it is often recommended to delete one item at one time

(Hair et al., 2006; Thompson, 2004) as the deletion of an item may affect the relationships among the other remaining items.

There are many strategies in determining the number of factors to be retained. Barlett's statistical significance tests, Kaiser's K1-rule (i.e., eigenvalue greater than one), Cattell's scree test, and inspection of the residual correlation matrix are the popular ones. However, parallel analysis has the advantage over the most popular K-1 method as its goal is to "create eigenvalues that take into account the sampling error that influences a given set of measured variables" (Thompson, 2004, p. 34). Thus, it was used in this study. As items 1-4 had four rating points, whereas the other items had three rating anchors, separate sets of random numbers were generated. If the eigenvalue for a factor from the sample data was greater than the eigenvalue for the corresponding factor from the random numbers, the factor was retained.

Responses used for exploratory factor analysis came from the 115 parents from the development group, who responded to survey items 1-6 and 8-15. In the first step, an oblique rotation with the promax method and the principal axes factoring extraction method were used to examine whether or not the factors were highly correlated, implying a possible higher-order factor structure. Results showed that the 14 items loaded on two factors with the eigenvalues of 6.34 and 1.45, respectively. These two eigenvalues were also greater than those from the parallel analysis based on the random numbers. Thus, the two factors were retained and they accounted for 49.16% of the variance on the survey. The factor correlation was .635, a large correlation (Cohen, 1988).

Hence, the higher-order, one-factor structure was explored next. Although the structure coefficients on the one-factor structure were all acceptable, ranging from .46 to .75, the explained variance had decreased to 41.21%, noticeably below the recommended minimum

threshold of 50% (Hair et al., 2006). Further examination on the interitem correlations revealed that, although most of the 91 coefficients among the 14 items were significant at the .01 or .001 level, these correlations were primarily either small or moderate (Cohen, 1988) as shown in Table 4. It seemed that the one-factor structure was not strongly supported. Consequently, the orthogonal varimax rotation method was used to discover the factorial structure of the survey. With the varimax rotation and the principal axes extraction methods, Item 13's loadings were below .40 on both factors (i.e., .391 and .396). In addition, four items (6, 8, 12, and 15) had cross-loadings. Thus, Item 13 was eliminated for the second run. Without Item 13, the explained variance had increased slightly, to 50.63%, and all of the 13 items had structure coefficients above .40. Nevertheless, Items 8, 12, and 15 demonstrated the cross-loading challenge, especially for Item 15, which loaded on the two factors at .501 and .544. The third run without Item 15 again generated the two-factor structure with the eigenvalues of 5.47 and 1.45, respectively. The total explained variance by these 12 items was 50.35%, not much less than the 50.63% of the previous run, supporting the exclusion of Item 15. However, cross-loading still appeared on Items 8 and 12. The latter was more serious than the former, with .530 and .446 on the two factors. Hence, Item 12 was deleted in the fourth run. The 11 items, without Item 12, slightly increased the explained variance to 50.55% by the two factors.

Item 8 remained to be cross-loaded: .588 and .432 on the two factors, respectively. It was excluded for the fifth run. Without Item 8, the remaining 10 items again loaded on two factors with eigenvalues of 4.47 and 1.45, both larger than the values from the parallel analysis. The two factors explained 50.65% of the total variance, slightly higher than the 50.55% in the previous model. Also, there were no more cross-loadings and all of the 10 structure coefficients were greater than .40.

The above iteration of the process clearly demonstrated that the deletion of the item in each step refined the structure of the survey as reflected in the fact that (a) the explained variance was not negatively impacted with the eliminated item, (b) the cross-loading of the items were persistent in the process, suggesting they could be deleted (Hair et al., 2006), and (c) the two-factor structure remained unchanged. The two-factor structure with 10 items was also superior to the one-factor structure with 14 items, with more portion of explained variance and fewer items. Therefore, the two-factor structure of the survey with 10 item was considered to be the final one in the EFA process.

Table 1 shows (a) the structure coefficients on the two factors and the communality coefficients (h^2) for each of the 10 items, (b) the mean communality coefficient across the 10 items, (c) the trace of the two factors individually and collectively, and (d) the descriptive statistics in mean and standard deviation for the 10 items. Items 1-4 loaded on satisfaction and the other six items loaded on understanding, exactly as originally designed. The two factors were undoubtedly termed as satisfaction and understanding, respectively. Eight of the 10 items had structure coefficients greater than .50, with 4 of them even larger than .70, implying that the loadings were generally solid.

Communality for an item represents the amount of its variance accounted for by the two factors. A large value of communality coefficient for an item indicates that the variance of the item is adequately accounted for by the factor solution (Hair et al., 2006). The communality coefficients for the 10 items ranged from .20 to .84, with 5 of them greater than .50. The mean communality coefficient of the 10 items was .53, indicating that the two factors could account for 53% of the variances on the items on average.

Trace indicates the amount of variance explained by a factor or the overall factor-solution (Hair et al., 2006). As trace is affected by the number of items, percentage of trace is often used by adjusting for the number of the items. Table 1 shows the two factors that could account for 24.20% and 26.45% of the total variance of the 10 items, respectively. The overall factor solution obviously explained 50.65% as that from the EFA process, above the 50% minimum threshold as recommended for EFA studies (Hair et al.).

Table 1

Structure Coefficients and Descriptives for the 10-Item Survey

Item	<i>M</i>	<i>SD</i>	Factor		<i>h</i> ²
			I	II	
1. Satisfaction with the special education program	3.75 ^a	.51	<u>.809</u>	.243	.71
2. Satisfaction with the special education support services	3.70	.58	<u>.777</u>	.110	.62
3. Satisfaction with the regular classroom instruction received	3.69	.56	<u>.620</u>	.239	.44
4. Satisfaction with the degree of participation in decisions affecting services and placement	3.71	.56	<u>.584</u>	.312	.44
5. Understand child eligibility	.93 ^b	.32	.142	<u>.422</u>	.20
6. Understand referral for service process	2.68	.57	.396	<u>.513</u>	.42
9. Understand how the test results are used to determine an educational plan	2.77	.48	.302	<u>.650</u>	.51
10. Understand parent role in the process	2.92	.27	.190	<u>.714</u>	.55
11. Understand parent role in developing the individual educational program	2.82	.43	.107	<u>.910</u>	.84
14. Understand the role of the ARD committee	2.87	.39	.347	<u>.467</u>	.34
Trace			2.420	2.645	
% Variance			24.20	26.45	
Total % variance: 50.65%					
Mean <i>h</i> ²					.53

Note: Factor I = Satisfaction. Factor II = Understanding. Structure coefficients greater than .40 are underlined.

N = 109.

a = 4-point Likert scale for Items 1-4, with 1 being *very unsatisfactory* and 4 being *very satisfactory*.

b = 3-point Likert scale for Items 5, 6, 9, 10, 11, and 14, with 1 indicating *do not understand* and 3 for *complete understanding*.

The correlation between the two factors was .54, which was significant at the .001 level, thus supporting the convergent validity. On the other hand, the separate variance was twice larger than the shared variance (i.e., 70.84% versus 29.16%), implying that the satisfaction and understanding factors on the survey did address various domains of the special education program and services for children. Thus, the discriminant validity was also supported in the sample. In summary, the analyses on the EFA results indicated that the two-factor solution on the 10-item survey was simple, clear, and acceptable (see Table 2).

Table 2

Item Correlations for the Exploratory Factor Analysis Group

Survey item	Q1	Q2	Q3	Q4	Q5	Q6	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
Q1	–													
Q2	.65***	–												
Q3	.59***	.43***	–											
Q4	.46***	.55***	.47***	–										
Q5	.17	.17	.23*	.18	–									
Q6	.40***	.39***	.35***	.32***	.32***	–								
Q8	.40***	.41***	.39***	.41***	.34***	.40***	–							
Q9	.38***	.32***	.33***	.32***	.36***	.40***	.74***	–						
Q10	.37***	.24*	.25**	.32***	.24**	.47***	.45***	.54***	–					
Q11	.25**	.14	.23*	.40***	.37***	.42***	.43***	.54***	.65***	–				
Q12	.48***	.50***	.29**	.37***	.41***	.53***	.54***	.46***	.46***	.40***	–			
Q13	.29**	.29**	.36***	.29**	.22*	.49***	.47***	.36***	.23*	.35***	.36***	–		
Q14	.51***	.22*	.39***	.31***	.28**	.30**	.40***	.46***	.32***	.46***	.30***	.29**	–	
Q15	.52***	.45***	.35***	.46***	.45***	.40***	.49***	.38***	.44***	.49***	.52***	.40***	.53***	–

Note. * $p < .05$, ** $p < .01$, *** $p < .001$. The sample sizes ranged from 107 to 11

Confirmatory Factor Analysis

The primary goal of confirmatory factor analysis is to confirm or disconfirm the validity of a prior-specific model (Schumacker & Lomax, 2004). When the data for the validation group fit to the factor model derived from the development group, the model is considered confirmed and theoretically supported. Model fit statistics are generally used to indicate the degree to which the sample variance-covariance data fit the specified model. As no single global index is available to assess the model fit, a combination of various fit criteria is often recommended (Hair et al., 2006; Kline, 1998; Schumacker & Lomax, 2004) because different fitting indices usually reflect somewhat different facets of model fit. The global fit indices (GFI) and the cutoff values used for the present study are shown in Table 1.

As the χ^2 statistic is sensitive to the sample size, the ratio of χ^2 to degree of freedom has usually been used in confirmatory factor analysis. Kline (1998) stated that a ratio of less than 1.5 usually is considered to be adequate, less than 2 to be satisfactory, and less than 3 to be acceptable. The GFI indicates the proportion of the sample covariances explained by the model-implied covariances, analogous the R^2 in multiple regression. The normed fit index (NFI) indicates the proportion of the improvement of the overall fit of the tested model to a null model (Bentler, 1990). Comparative fit index (CFI) is similar to NFI, but less affected by sample size (Kline, 1998). The standardized root mean squared residual (SRMR) is a standardized summary of the average covariance residuals. The root-mean-square error of approximation (RMSEA) is based on the noncentrality parameter with a value of less than .05 often considered as adequate (Hair et al., 2006)(see Table 3).

Table 3

Model Fit Criteria and the Cutoff Values for CFA

Model fit criteria	Cutoff values / Acceptable level
Chi-square/degree of freedom	$\chi^2/df < 3$
Goodness-of-fit (GFI)	>.95
Normed fit index (NFI)	>.95
Comparative fit index (CFI)	>.95
Standardized root mean squared residual (SRMR)	User defined, 0 meaning perfect fit.
Root-mean-square error of approximation (RMSEA)	<.05

The derived two-factor model of the survey from the development group was then verified in the validation group. First, the sample data for the other 115 cases in the second group in SPSS® were imported to the preprocessor data program PRELIS™ prior to running LISREL® (Schumacker & Lomax, 2004) to produce the variance-covariance matrix. Then the prior-specified model from the first group was tested with the generated variance-covariance matrix for the second sample.

The initial two-factor model fitted to the sample data reasonably well: $\chi^2(34, N = 115) = 35.77, p = .39; GFI = .94; NFI = .87; CFI = .99; SRMR = .060$ and $RMSEA = .021$. All of the fitting indices but *NFI* were satisfactory. Table 4 shows the overall model fitting indices and the statistics for the measurement model. The measurement and structural model was also graphically presented in Appendix C. All of the loadings were greater than .50, statistically significant at the .001 level. The structure coefficient between the two factors in the validation group was .44, also significant at the .001 level. In conclusion, the two-factor model developed from the first group was confirmed in the second group.

A similar significant correlation at the .001 level between the two factors was obtained as well for the entire sample ($r = .443$) through the bivariate correlation. These moderate correlations in the validation group and the entire sample again supported the convergent and discriminant validity of the 10-item survey (see Table 4).

Table 4

Measurement Model and Fitting Statistics in the Validation Group

Item	Loading	R^2
1. Satisfaction with the special education program	.65	.42
2. Satisfaction with the special education support services	.67	.44
3. Satisfaction with the regular classroom instruction received	.69	.48
4. Satisfaction with the degree of participation in decisions affecting services and placement	.65	.42
5. Understand child eligibility	.61	.37
6. Understand referral for service process	.53	.28
9. Understand how the test results are used to determine an educational plan	.52	.27
10. Understand parent role in the process	.59	.35
11. Understand parent role in developing the individual educational program	.55	.30
14. Understand the role of the ARD committee	.65	.42
$\chi^2 (df, p)$	35.77 (34; .39)	
<i>GFI, NFI, CFI</i>	.94, .87, .99	
<i>SRMR, RMSEA (90% CI)</i>	.060, .021(.000, .070)	

Internal Consistency Reliability

Among the many types of reliability, the internal consistency reliability was assessed with the one-time administration of the survey. Nunnally (1978) established the widely cited minimum thresholds for internal consistency reliability for psychological and educational

studies: .70 for acceptable, .80 for satisfactory, and .90 as adequate. This rule of thumb was used in the present study to determine the goodness of the reliability of the *Parent Survey*.

Table 5 lists the internal consistency reliability in Cronbach alphas on the two factors and the entire scale, first in groups and then in the entire sample. It shows that the internal consistency reliability coefficients were from .79 to .91, predominantly in the satisfactory range (Nunnally, 1978). In considering the phenomenon of lower alphas for understanding than for satisfaction, and the fact that understanding has two more items than satisfaction, the understanding subscale seemed to be relatively less reliable than the satisfaction subscale. However, it approached the minimum threshold for satisfactory (Nunnally) at worst. Furthermore, the item-total correlations indicated that each of the items either moderately or highly correlated with the other items in the scale, implying that all of the items deserved to be retained. Therefore, the *Parent Survey* demonstrated satisfactory reliability in the sample.

Table 5

Internal Consistency Reliability Coefficients in Cronbach Alpha

Group	Satisfaction ¹		Understanding ²		Total Scale ³	
	<i>n</i>	α	<i>n</i>	α	<i>n</i>	α
Development group	106	.81	109	.79	101	.85
Validation group	108	.91	112	.80	105	.85
Entire sample	224	.87	221	.80	206	.85

Note. 1 = four items, 2 = six items, and 3 = 10 items

Summary

The psychometric assessment of the Parent Survey started with the exploratory factor analysis on the 14 items in the development group. A one-factor structure appeared to be less satisfactory than a two-factor structure. In the process of searching for the best factorial structure of the survey, four items (8, 12, 13 and 15) were eliminated primarily because of cross-loading,

an indication of vague affiliation with a single factor. The EFA ended up with a discovery of two factors in the 10 items: satisfaction and understanding, exactly as conceptually designed by the original developers. The loadings of the 10 items on their respective factors were generally solid, greater than .50. Then the two-factor model was confirmed in the validation group as reflected in the acceptable overall model fitting indices and the sound measurement model. The structure coefficient between the satisfaction and understanding factors also demonstrated both convergent and discriminant validity in the two groups. The examination of the internal consistency reliability at the factor and scale level indicated the survey was satisfactorily reliable both in the entire sample and in the two matched groups. In conclusion, the *Parent Survey* with the 10 items in two factors was psychometrically acceptable. Hence, the subsequent analyses were based on the two-factor structure of the survey for the entire sample.

Data Analysis Strategies

The Survey Method

Among the various possible techniques to collect data on parental perceptions about child education, the survey approach has been popular as it is convenient and cost-effective (Gall, Gall, & Borg, 2003). The survey data are also easily used for statistical analysis. In addition, Duhaney & Salend (2000) recommend employing the use of a survey to gather input from parents regarding their feelings and reactions to their children's school programs. "Surveys can also address parents' satisfaction with the quality of the educational program their child is receiving, their communication with school personnel, and school wide and district wide inclusion practices" (Duhaney & Salend, p. 127). As the survey method allows for the examination of a phenomenon through analyzing sample characteristics without experimental

manipulation (MacColl & White, 1998), thus, the collected data on the *Parent Survey* from the school district was used to address the research questions in the present study.

Data Screening

Two parents did not report the number of children receiving the special education services and 11 parents failed to provide the information on the number of years the children received the services. These cases with the missing demographic data were excluded in the statistical analysis for the group differences on the relevant variables, but they were retained in the factor analyses. In addition, 16 parents answered “less than one year” without a precise numeric value for the years of receiving services. As the temporal duration of the special education services for these children ranged from 3 to 9 months, a value of one-half was used to replace the range for the descriptive purpose. Also, two parents reported zero for the number of years. As all of the participants were parents with special-education children, these two parents might have had their children in the special education program for only few months. Thus, these two pieces of data were considered to be valid. Such a decision had only a minimal impact on the descriptive statistics for this variable if it was not the case. For the 42 families with more than one child receiving special education services, 3 parents provided separate years of service for each child whereas the other 39 parents reported the total years for all of the children. For the descriptive and grouping purposes, the longer or longest period was used if separate years were available; otherwise, the average years across the children was used. Although this strategy created downward estimates parents’ years of experience with special education, the total would unreasonably overestimate parents’ years of experience, especially for the 11 families with three children receiving the services.

Question 7 on the *Parent Survey* did not have the explicit rating points as did the other 11 items in Part 3 (see Appendix A). The omission caused 143 parents to not answer the question. Therefore, Question 7 was excluded in the factor analysis and other statistical analyses. Eighty-two parents also did not respond to Question 16. As this question was applicable only to children 14 years old and older, it was also excluded in the present study. The missing data on other 14 items were few, at an overall rate of 1.76%. As the rate was so low, no replacement strategies were used for the missing data in factor analyses and reliability examination. In calculating the means for the derived factors from the EFA, the factor mean was not computed if the missed items were greater than 30% of the total item for the factor. Subsequently, the case was not included in the statistical analysis for the group differences on that factor. Other cutoff criteria allowing for missing items would be either too liberal or rigid, leading to either unreliable estimate of the factor means if too tolerant or too much loss of cases if too stringent.

Statistical Analysis Strategies for the Group Differences

The *Parent Survey* had two variables allowing for examination of group differences on parental satisfaction and understanding. Therefore, number of children and years of services in special education were treated as grouping variables for this purpose. Because of the advantages of controlling the Type I error rate and exploring the possible interaction effect between the two variables in two-way ANOVA over the separate considerations of the two grouping variable in one-way ANOVA (Hinkle, Wiersma, & Jurs, 2003), two-way (child number x service years) ANOVAs were used to examine the group differences between parents on the factors of satisfaction and understanding of special education services extracted from the factor analyses. For the number of children receiving the special education services, only 42 parents who returned surveys indicated that they had two or three children, whereas the remaining 82% of

responding parents reported having only one child (see Table 3). Hence, the parents with two or three children were collapsed into one group. For the years of receiving the services, the values ranged from fewer than 1 to 11 (see Table 3). To categorize this continuous variable, arbitrary cutoff points had to be established to split the sample into approximately equal groups (Pedhazur & Schmelkin, 1991). The data distribution clearly suggested two groups: one with fewer than 3 years, and another group with 3 and more years. Such a data-driven categorization by splitting the sample around 3 years was also aligned with the conceptual design of the present study.

There are three assumptions for the ANOVA analyses: (a) random and independent sampling, (b) homogeneity of variances, and (c) normal distribution of the dependent variables. Violations on any of these assumptions generally impact the Type I error rate (Glass, Peckham, & Sanders, 1972). The first assumption on random sampling was not met in this study, as in many other psycho educational studies using the convenience samples. In fact, it was not possible to determine if the participants were a biased sample as the participation was voluntary and the return rate was low. Parents who were not satisfied with the special education services might have chosen not to reply the survey. But the independent observation was seemingly warranted as the survey was sent to the parents independently. No obvious indications suggested these participants related to one another in any known ways in answering the survey. Although the first assumption was not completely met, the impact of the violation was minimal as this assumption is usually just a technical term (Hinkle et al., 2003). For the second assumption, Levene's test was used. If a violation occurred, the critical value of the Type I error rate was adjusted accordingly based on the recommendations of Glass et al., to determine the statistical significance. More specifically, Glass et al. stated that the F test tends to be too conservative when the larger cell sample has the larger variance and tends to be liberal if the larger cell

sample has the smaller variance. For the third assumption, the normality of the dependent variables was examined through the z -scores of skewness and kurtosis (Hair et al., 2006). A z -score beyond the range of ± 2.58 at the .01 level was considered as an indication of non-normal distribution. If necessary, data transformation was used to normalize the dependent variables. In determining the statistical significance, the conventional .05 alpha (α) level was used throughout this study unless otherwise specified. For judging the magnitude of a practical significance, Cohen's (1988) guidelines were followed. More specifically, Cohen stated for the mean-type differences, values of .2, .5, and .8 were considered to be the minimum threshold for a small-, medium-, and large-effect sizes, respectively. The weighted standard deviation (Hunter, Schmidt, & Jackson, 1982) was used in the present study to compute the mean-type difference on Cohen's d statistic. For the correlations, values of .10, .30, and .50 were deemed as the minimum threshold for a small, moderate, and large associations, respectively. These values were equivalent to the minimum thresholds of 1%, 9%, and 25% for small-, medium-, and large-effect sizes in the variance-accounted-for type of studies.

For the two-way ANOVAs, when there was a significant interaction effect, the significant main effect(s) was not interpreted as recommended if the interaction effect was disordinal, because the mean for one group is not always higher than another group (Hair et al., 2006; Pedhazur & Schmelkin, 1991). However, if the significant interaction effect was ordinal (i.e., the mean for one group is always higher than another group no matter how they are combined), both the significant interaction and main effects were interpreted (Hair et al.).

For the four open-ended questions in Part 4 of the survey, answers were categorized using theme analysis to identify trends (Bogdan & Biklen, 2003) relating to parent satisfaction and understanding. The trends were also presented in the tabular format based on the frequencies.

CHAPTER IV

RESULTS

Demographic Characteristics of Parents

The sample consisted of 230 parents of elementary school students from a North Texas school district's special education programs. Three demographic variables were collected from the *Parent Survey*: (a) number of children receiving special education services in the family, (b) years participated in the special education service, and (c) the location where served. The first two variables are metric in nature. The third variable is categorical and was excluded in the present study because of its diverse and imbalanced distributions.

Table 6 shows that parents of elementary school students had a range of one to three children in special education with an average of slightly more than one child ($M = 1.23$, $SD = .53$), implying that most of the parents had one or two children receiving special education services. This phenomenon was confirmed in Table 7, which presented the variables categorically. About 82% and 14% of parents had one and two children receiving the services, respectively. As previously mentioned, the 11 parents with three children receiving the services were combined with parents who had two children in examining group differences because of its small cell size, especially in two-way ANOVAs. For years of services in special education, the average duration was 3 years, with the range of less than one year to 11 years. Table 7 indicates that most of the children received special education services for one to five years (about 78%). For the purpose of ANOVAs, the data distribution of this variable in Table 7 suggested a categorization of two groups: fewer than 3 years versus 3 and more years. The two groups had 111 and 108 parents responding, respectively, corresponding to approximately 51% and 49%.

Table 6

Descriptive Statistics of the Two Continuous Demographic Variables

Variables	<i>n</i>	<i>Min</i>	<i>Max</i>	<i>M</i>	<i>SD</i>
Number of children receiving services	228	1	3	1.23	.53
Years of receiving services	219	0	11	3.04	2.18

Table 7

Distributions of the Frequencies for the Two Demographic Variables

Variable	<i>n</i>	%	Cumulative %
Number of children receiving services			
1	186	81.6	81.6
2	31	13.6	95.2
3	11	4.8	100.0
Years receiving services			
.00	2.00	.91	.91
.50	18.00	8.22	9.13
1.00	34.00	15.53	24.66
1.33	4.00	1.83	26.48
1.50	5.00	2.28	28.77
2.00	42.00	19.18	47.95
2.50	6.00	2.74	50.68
3.00	35.00	15.98	66.67
3.50	5.00	2.28	68.95
3.67	2.00	.91	69.86
4.00	17.00	7.76	77.63
4.50	3.00	1.37	79.00
4.67	1.00	.46	79.45
5.00	16.00	7.31	86.76

(table continues)

Table 7(continued)

Variable	<i>n</i>	%	Cumulative %
5.33	1.00	.46	87.21
Years receiving services			
6.00	7.00	3.20	90.41
6.50	2.00	.91	91.32
7.00	8.00	3.65	94.98
8.00	5.00	2.28	97.26
9.00	3.00	1.37	98.63
9.50	1.00	.46	99.09
10.00	1.00	.46	99.54
11.00	1.00	.46	100.00

Descriptive Statistics

The original survey used the reverse rating anchors for Items 1-16 (i.e., a lower rating indicates higher degree of satisfaction or understanding) in collecting the data. The data were reversed back to the regular positive direction, that is, a higher number indicated more satisfaction or understanding. Table 8 shows the means and standard deviations for the two factors on the 10 items in the sample. To answer research question one, the parents were highly satisfied with the special education programs for their children as reflected in the mean close to the ceiling point. Answering research question two, the parents also indicated a high degree of understanding of the special education services. In fact, more than 61% of the parents were *Very Satisfied* and about 52% reported *Completely Understand*. Only 7% of the parents were below *Somewhat Satisfied* about the program and fewer than 2% indicated they did not understand the special education services for their children.

These large percentages of parents with high ratings undoubtedly led to the highly negative skewed data distributions with highly positive kurtosis as shown in Table 8. The transformed *z*-scores on skewness and kurtosis were far beyond the $|\pm 2.58|$ threshold.

Table 8

Descriptive Statistics by the Entire Sample

Subscales	<i>n</i>	<i>M</i>	<i>SD</i>	<i>Skewness</i>	<i>Kurtosis</i>	<i>Z-skewness</i>	<i>Z-kurtosis</i>
Satisfaction	224	3.71 ^a	.49	-2.09	4.76	-12.76	14.54
Understanding	228	2.81 ^b	.30	-1.75	2.54	-10.81	7.82

Note: a. 4 = *Very Satisfied* and 3 = *Somewhat Satisfied*

b. 3 = *Completely Understand* and 2 = *Somewhat Understand*

The Group Differences

The group differences between parents with different numbers of children and years of services related to children’s special education on satisfaction and understanding were examined in the two-way ANOVAs. As explained in Chapter III, numbers of children was broken into two groups (one child versus two or three children) and years of services were also categorized into two groups (fewer than 3 years versus 3 and more years).

Table 9 displays the means and standard deviations on satisfaction by subgroups. The 174 parents with one child had a mean score of 3.66, whereas the 39 counterparts with two or three children scored 3.92 with a much smaller standard deviation. The 126 parents with children receiving the services for fewer than three years reported a score of 3.74, whereas the other 87 parents with children receiving the services three and more years scored at the slightly lower value of 3.67. On average, 213 parents had a satisfaction score of 3.71, the same as the value of 3.71 for the 224 parents in Table 8. Eleven parents did not report the number of children and/or years of services. Thus, they were not included in the 2 x 2 ANOVAs.

Table 10, reporting descriptive statistics on understanding, shows that the majority of the cell means were in the range of 2.81 to 2.86. The 5 parents with two or three children in special education programs for fewer than 3 years seemed to report less understanding than the other groups ($M = 2.73$). Also, this group with a very small cell size had a relatively large standard deviation. As a whole, the 217 parents available for the 2 x 2 ANOVA reported a mean score of 2.82 on understanding, slightly higher than the value of 2.81 for the 228 parents with 11 additional parents included as shown in Table 8. Consistent with Table 8, results from Table 9 demonstrate that all parents in different groups had similarly high satisfaction, and Table 10 demonstrates understanding levels regarding the special education services for their children. Table 9.

Descriptive Statistics on Satisfaction by the Subgroups

Years of service	One child			Two and three children			Total number of children		
	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>
Fewer than 3 years	121	3.73	.46	5	3.95	.11	126	3.74	.49
Three and more years	53	3.51	.64	34	3.92	.20	87	3.67	.55
Total in years	174	3.66	.53	39	3.92	.19	213	3.71	.50

Table 10

Descriptive Statistics on Understanding by the Subgroups

Years of service	One child			Two and three children			Total number of children		
	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>
Fewer than 3 years	122	2.81	.29	5	2.73	.43	127	2.81	.30
Three and more years	55	2.82	.24	35	2.86	.30	90	2.84	.27
Total in years	177	2.81	.28	40	2.85	.32	217	2.82	.29

To answer research questions three and four, two-way ANOVAs were used to look at the interaction effects between groups. The first two-way ANOVA was to compare mean differences in satisfaction (research question three) between parents with one child and parents with two or more children, and between parents with fewer than 3 years of special education services and parents with services for 3 and more years. Table 11 shows that the interaction effect and the main effect on years of service were not significant either statistically or practically: $F(1, 212) = .60, p > .05$, and $\eta^2 = .003$ for interaction; $F(1, 212) = 1.05, p > .05$, and $\eta^2 = .005$ for years of services. However, the main effect on number of children was found: $F(1, 212) = 6.80, p = .01$. Table 9 shows that parents with two or three children in the special education program were more satisfied with the services than parents with one child in special education ($M_s = 3.92$ and 3.66 , respectively). In addition to being statistically significant at the .01 level, the difference was also practically meaningful: $\eta^2 = .032$, indicating that about 3% of the variance on satisfaction could be accounted for by the different numbers of children; and Cohen's $d = .53$, a medium effect size.

Nevertheless, the assumption on the equality of error variances was violated: $F(3, 209) = 14.09, p < .001$. The distributions of the standard deviations indicated that the one-child group had much larger standard deviation than the group with two or three children (.53 versus .19), as shown in Table 9. As the former group has the larger group size, the obtained F values tend to be conservative (Glass, Peckham, & Sanders, 1972). Thus, it seemed the critical value of the Type I error rate should be set to a value of greater than .05, such as .10. Even so, the F values on the interaction effect and main effect on years were far below the critical value at the .10 level. These effects would remain insignificant even if the alpha level were adjusted to a larger value to accommodate the heterogeneity of the variances.

The next 2 x 2 ANOVA examined research question four asking if there would be differences among parents on understanding about the special education programs and services for their children. No differences were found among parents related to understanding. The assumption of homogeneity of variances for this two-way ANOVA was met: $F(3, 213) = 2.04, p < .48$. The ANOVA results were also shown in Table 11. Neither the interaction nor main effects were found to be statistically or practically significant: $F(1, 216) = .81, p > .05$, and $\eta^2 = .004$ for the interaction; $F(1, 216) = .04, p > .05$, and $\eta^2 < .001$ for number of children; and $F(1, 216) = .88, p > .05$, and $\eta^2 = .004$ for years of services. Different groups of parents had similar understandings about the special education programs and services for their children.

Table 11

ANOVA Tables for Parental Satisfaction and Understanding

Factor	SS	df	MS	F	p	η^2
Satisfaction						
Number of children	1.57	1	1.57	6.80	.01	.032
Years being serviced	.24	1	.24	1.05	.31	.005
Number x Years	.14	1	.14	.60	.44	.003
Error	48.23	209	.23			
Total	52.20	212				
Understanding						
Number of children	.003	1	.003	.04	.84	<.001
Years being serviced	.073	1	.073	.88	.35	.004
Number x Years	.067	1	.067	.81	.37	.004
Error	17.566	213	.082			
Total	17.685	216				

Qualitative Analysis

Research question five asked what were the parental perspectives regarding improvement of their understanding of special education programs and of methods of receiving information about special education. In response to the first open-ended question of what could be done to increase understanding of the special education process, the majority of the parents, 58%, recommended parent training on special education (SPED) processes and increased communication in the admission, review and dismissal (ARD) meetings. These were the two most popular suggestions as strategies for increasing parent understanding of the special education process. Other strategies included assigning a parent advocate for each family, disseminating SPED research to parents, and explaining SPED processes in Spanish (see Table 12).

Table 12

Strategies for Increasing Parent Understanding of Special Education Process

Strategies	<i>f</i>	%
Parent training on SPED process	55	34
Increased communication in ARD meeting	39	24
Assign a parent advocate	26	16
Disseminate SPED research to parents	25	15
Explain process in Spanish	18	11

Note: n = 163

In response to the second open-ended question of what is/was your best source of information regarding special education, parents responded that ARD committees and teachers/diagnosticians were the best sources of special education information. Eighty percent of all parents indicated that these two sources were the best for acquiring special education information. Meanwhile, approximately 20% of parents suggested that HEB/Mid-Cities Dyslexia

Group, bilingual groups, and support groups were also good sources for acquiring information regarding special education (see Table 13).

Table 13

Best Source of Information Regarding Special Education

Sources	<i>f</i>	%
ARD committee	72	44
Teachers/diagnosticians	58	36
HEB/Mid-Cities dyslexia group	14	9
Bilingual groups	12	7
Support groups	7	4

Note: n = 163

In response to the third open-ended question, what is/was your least helpful source of information regarding special education, an overwhelming 66% of all parents noted that excessive and wordy paperwork was the least helpful source of information regarding special education services. Other ineffective methods of providing special education information included long phone calls and communication by general education teachers (see Table 14).

Table 14

Least Helpful Source of Information Regarding Special Education

Least Helpful Source	<i>f</i>	%
Excessive and wordy paperwork	108	66
Long phone calls	35	21
General education teachers	20	12

Note: n = 163

In response to the last open-ended question, what would be the best (most helpful) way to get information to you regarding special education, the majority of all parents, 74%, responded

that the postal mail and the ARD meetings with diagnosticians were the best methods of acquiring special education information. In addition, parents suggested e-mails, voicemails, and sending information home with their children (see Table 15).

Table 15

Best (Most Helpful) Way to Get Information Regarding Special Education

Best Way	<i>f</i>	%
Postal mail	88	54
ARD meetings/diagnosticians	32	20
E-mails/voicemails	27	17
Send home with child	16	9

Note: *n* = 163

Summary

The analysis of the *Parent Survey* contained three parts. The first part assessed the psychometric properties of the survey, the second part examined the group differences between different types of parents, and the last part of the analysis solicited parental feedbacks for ways to improve special education services. Ten items on the *Parent Survey* formed two factors based on exploratory factor analysis: satisfaction with SPED services and understanding about the special education process. The two-factor structure of the survey was validated by finding the second independent group to be equivalent to the development group. In addition, it demonstrated satisfactory reliability and validity in the subsamples and the entire sample. Thus, the two factors were used to determine mean differences on two independent variables: (1) number of children receiving SPED services and (2) number of years children received SPED services.

In answer to research question one, parents were highly satisfied with the special education services received. In answer to research question two, parents reported almost

completely understanding the special education process. Research question three found a difference in parent groups because parents with two or three children were more satisfied with the SPED services than parents with only one child. No differences were found to answer research question four.

Numerous suggestions were given by the parents to the open-ended questions that answered research question five. Parents recommended parent training on SPED processes and increased communication in the ARD meetings to increase their understanding of the special education process. Parents reported that the best sources of receiving special education information were ARD committees, teachers and diagnosticians. The least helpful source of special education information, according to the parents, was excessive and wordy paperwork. Parents said that the most helpful way to get information regarding special education was through the postal mail and in the ARD meetings with diagnosticians.

CHAPTER V

DISCUSSION

The purpose of this study was to examine the satisfaction and understanding of parents of young children in North Texas regarding the special education services they receive through their LEAs. The study evaluated the data by looking at the two independent variables – the number of children receiving special education (SPED) services and the number of years children received SPED service – in relationship to two factors from the factor analysis: satisfaction with SPED services, and understanding about the special education process. A mixed nonexperimental research design, utilizing the survey method, was used to obtain the data collected from a sample of 230 survey respondents.

Summary of Findings

Of the 230 parents in the sample, the mean results of the demographics showed that parents had an average of one child in special education for an average of three years of special education service. Eighty-two percent of the parents responding had one child receiving SPED services, and 49% of parents had been receiving services for 3 or more years.

Factorial analysis techniques were used first to assess the validity of the 14-item survey by splitting the sample into two equivalent groups: the development group and the validation group. Exploratory factor analysis extracted two factors after eliminating four items: satisfaction and understanding. This two-factor structure was confirmed in the validation group. The final 10-item survey demonstrated satisfactory reliability and validity in the two groups and in the entire sample.

Overall, parents were very satisfied with the SPED services and reported an almost complete understanding about the SPED services. More than half of the parents had mean scores

for satisfaction and understanding at the maximum point. Fewer than 3% of parents scored below the medians of the rating scales.

Parents of two or more children responded that they were more satisfied than did the parents of one child. This difference between families with one child and families with two or three children in satisfaction with the special education services for their children with disabilities was statistically significant.

There was a lack of a statistically significant difference regarding understanding about special education between the parents. Neither the interaction effect nor the main effects of number of children and years of services were found. All types of parents reported similarly high levels of understanding about the special education programs and services.

Discussion

Contrary to the finding from the statewide survey by the Region IX Service Center of the Texas Education Agency (TEA), that the more years of experience parents have with special education the less likely they are to be satisfied (TEA, 2004, March), this study did not find the trend toward less satisfaction for parents with 3 or more years of SPED experience. This might mean that for the parents in this school district, the passage of time lead to a more complete satisfaction level. However, there was a statistically significant difference in satisfaction levels between parents with two or three children in SPED and their counterparts with one child receiving services. Having more children in SPED services and programs might bring familiarity with procedures and stabilize expectations for parents. Following the same format in admission, review and dismissal (ARD) meetings over time and planning goals for the second or third time might show parents a consistency in procedures and services that enables parents to become more satisfied. Repeating the SPED procedures and processes for a second or third child could

put the parents in more comfortable positions than they experienced in the first meeting when they had to face new information and decisions surrounding placement and educational goals.

The information provided by the four open-ended questions on the survey correlated with the findings in research. Parent training and communication were the most popular strategies mentioned by parents as methods to increase their understanding of the SPED process. Research has shown a strong connection between communication and satisfaction level of parents in SPED (Dabkowski, 2004; Miles-Bonart, 2002). Mendoza (2003) reported the need to offer explanations in laymen's terms, i.e., language free of technical terminology, and to bring greater clarification to parents during the ARD/individual education plan (IEP) meetings for parents. Eleven percent of the parents from this survey requested explanations in Spanish, and 7% thought the most useful source of information would be a bilingual group. Efforts need to be made to help all families believe that their languages and cultures are valued in educational decisions (Wilkinson, Ortiz, Robertson, & Kushner, 2006).

In this study and the TEA *Statewide Parent Survey*, parents requested training and tutoring (TEA, 2004, March). Parents reported struggles with the schools to obtain information on SPED services (Gordon & Miller, 2003), and report feeling overlooked or unheard by SPED school officials (Lindsay & Dockrell, 2004). Gordon and Miller found in their study that, even though parents said they were listened to in meetings, very few parents considered themselves to be full participants in the legal meetings. Clearly, there is a need for schools to assist parents with their understanding so that they can be fully participating team members.

Looking at the preferred method for communicating information to parents, parents indicated that the ARD committee was one of the best sources for obtaining information, along with the teachers and diagnosticians. The least helpful source of information was the excessive

and wordy paperwork the parents received. This is similar to what the parents reported on the *Statewide Survey of Parents in Texas* (TEA, 2004, March). The majority of parents in both surveys preferred information delivered by postal mail, or by the school staff or at ARD meetings, not by voice mail or e-mail. Parents might be concerned with losing information from voice mail or e-mail messages and prefer to have it in their hands.

Limitations

Limitations of this study included those associated with non-experimental research designs. In particular, non-experimental designs yield results that make it difficult to establish true cause-effect relationships, and extraneous variables are difficult to control. Survey research traditionally has a low response rate of return, which might affect the sample integrity of the target populations. These limitations might affect internal and external validity (Gall, Gall, & Borg, 2003).

Other limitations included problems potentially inherent in survey research. Whether or not the parents received the surveys could have been affected by (a) the school failing to distribute all of the surveys sent to them, and (b) students not taking home the survey given to them. Factors affecting the return rate may have included (a) apathy on the part of the parents, (b) suspicion by parents as to the intent of the survey, (c) doubt that completing the survey might help their children, and (d) simple loss of the survey instrument itself. Of the surveys returned, the accuracy and truthfulness of the responses cannot be determined.

Another limitation of the study was that the investigator did not develop or administer the survey used in this study. Neither was she present when the parents filled out the surveys, nor when they returned the surveys.

The participants of this study were delimited to parents of young children with disabilities, pre-k through elementary ages, enrolled in special education programs at elementary schools in only one North Texas public school district. Results of this study cannot be generalized to other special education programs in Texas public schools or to children with disabilities outside the age range of the elementary school programs.

Future Research

The need to survey parents to determine ways to improve special education programs and services, as discussed in Office of Special Education Programs (OSEP) review of Texas, will undoubtedly precipitate continued parent surveys in the future (TEA, 2003). Since there were such a small number of surveys returned in this study, it seems worthwhile for the school district to conduct a follow-up survey to obtain more information from a greater number of their students' families. Also, because of the lack of great significance in the findings of the data analysis, another survey would help to further clarify the scope of parent satisfaction and understanding while additionally identifying any new parent concerns that might surface, but which were not originally covered in the open-ended questions on this survey.

Since information specifically related to early childhood programs was not identifiable in this study due to the lack of necessary demographics, another survey could be given to parents of children in the early childhood programs in the public schools. Needs particular to families of younger children could be explored, and transition issues into public school, not addressed in this survey, could be covered.

Further study could be done to look at how satisfaction and understanding develop in parents. How does satisfaction develop over time in parents? Is it related to the ages of their

children? What brings more complete understanding to parents during the special education process? How do parents' belief systems and values affect satisfaction?

More demographic information would allow for greater comparisons to be evaluated among the sample as well as within the student population itself. While the lack of demographics allowed confidentiality to be maintained, it limited the scope of the potential results.

The psychometric evaluation of the survey used in the present study has also led to recommended changes for future research. First, the survey items might need to be expanded to prepare for the item deletion because of the weak psychometric properties. Second, as all of the four items deleted in the process of exploratory factor analysis were in the domain of understanding, understanding appeared to be harder than satisfaction to be psychologically measured. Future survey development needs to strive particularly for high quality of items about parental understanding. Third, although the two-factor structure of survey was developed and confirmed in this study by splitting the sample into two groups, by matching the limited demographic variables, the survey needs to be further validated in new samples. Last, but not least, this survey had four rating points on satisfaction but three rating anchors on understanding. Although such a design does not affect the statistical analyses, it would make the descriptive statistics more comparable if the same rating scale were used.

Implications

The findings of this study indicate that parents in this survey were generally satisfied with their special education experience, especially if they had two or more children involved in SPED programs. However, parents also identified, through their responses to the open-ended questions, the many areas they believed needed improvement. Parents in the surveyed school district wanted improved communication with the district, and it would seem best to ask each parent

individually what kind of communication he or she needs to receive. This could be done at the initial ARD meeting and reaffirmed at the annual meetings. School districts should not assume that all parents have the same preferred communication needs and requirements. Parent preferences for methods of information delivery should be respected if a school district truly aims to be effective in the collaborative process with the parents of children in their special education programs.

Parents also expressed concern about two other areas in special education. The district should investigate the noted parental interest in training to identify content that is needed, and to note the method by which parents prefer to receive information. After-school meetings, so common in the past, no longer fit the schedules of many parents today. Child-care issues and other stresses sometimes contribute to parents' inability to attend meetings.

Paperwork was another issue raised in the responses by parents. The school district should make an attempt to reduce the amount paperwork, because parents consider it unnecessarily high in volume and scope. Surely, clarification and simplification of the special education process would improve the collaboration between parents and schools for the benefit of the children.

APPENDIX A
THE SURVEY

Department of Special Education

The Hurst-Euleless-Bedford Department of Special Education wants to learn about your understanding and satisfaction with special education services. Your answers will help us provide better support for you and your student.

1. How many of your children currently receive special education services? _____ (Number of children)
2. How many years have your child/children received special education services? _____ (Number of years per child)
3. Campus where my child receives special education services: _____
(please list all if more than one child)

4. Please indicate your level of satisfaction with the following. Circle the best response.

Are you satisfied with:	Very Satisfied	Somewhat Satisfied	Somewhat Unsatisfied	Very Unsatisfied
the special education program in your child's school?	VS	S	U	VU
the special education support services your child receives?	VS	S	U	VU
the regular classroom instruction your child receives?	VS	S	U	VU
your degree of participation in the decisions regarding your child's special education services and placement?	VS	S	U	VU

5. Please indicate how well you understand the following special education processes. Circle the best response number.

Do you understand:	Completely Understand	Somewhat Understand	Do not Understand
why your child is eligible for special education?	1	2	3
the special education "referral for services" process?	1	2	3
why your child was referred for special education testing?			
your child's testing results?	1	2	3
how your child's test results will be used to decide his/her educational plan?	1	2	3
your role as a parent in the process of providing special education services for your child?	1	2	3
your role in developing the Individual Education Program (IEP)?	1	2	3
how decisions are made regarding your child's placement and how and where special education services are provided to your child?	1	2	3
the role of state mandated testing (TAKS, SDAAC, LDAA) for students in special education?	1	2	3
the role of the ARD (Admission, Review and Dismissal) Committee?	1	2	3
the explanations provided to you during the ARD meeting?	1	2	3
that if your child is 14 or older, transition needs and services are to be included in the ARD/IEP?	1	2	3

6. What could be done to increase your understanding of the special education process?

7. What is/was your best source of information regarding special education?

8. What is/was your least helpful source of information regarding special education?

9. What would be the best (most helpful) way to get information to you regarding special education?

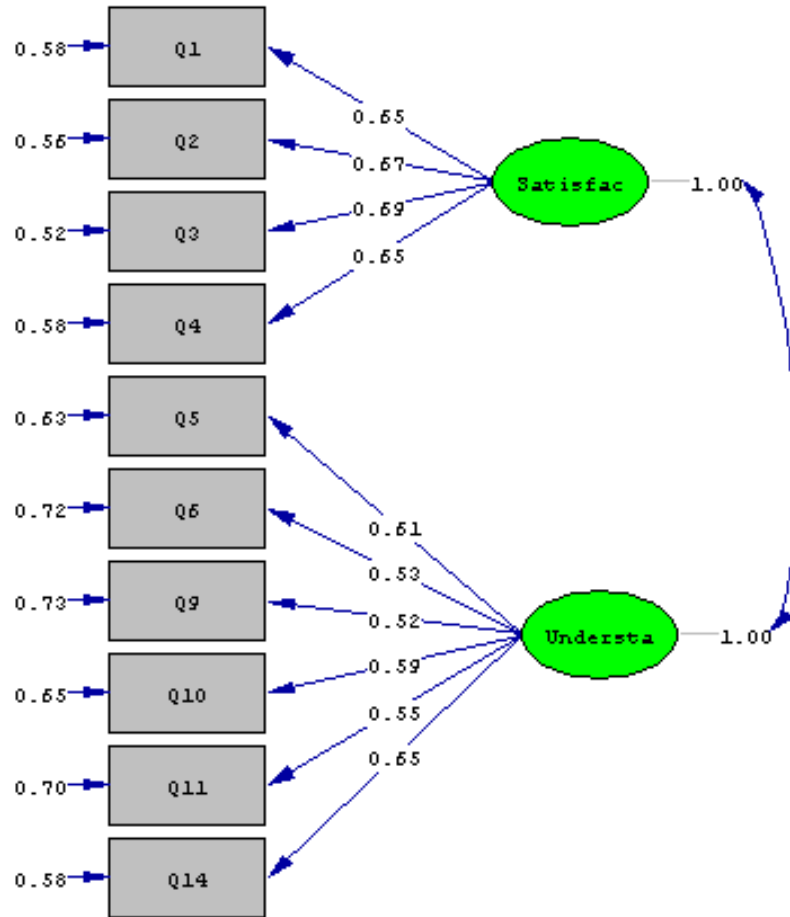
Thank you for taking time to complete this survey.

Please return the completed form to the diagnostician at your child's school by Friday, May 20, 2005.

Figure 1. Parent survey from the Hurst-Euleless-Bedford Department of Special Education.

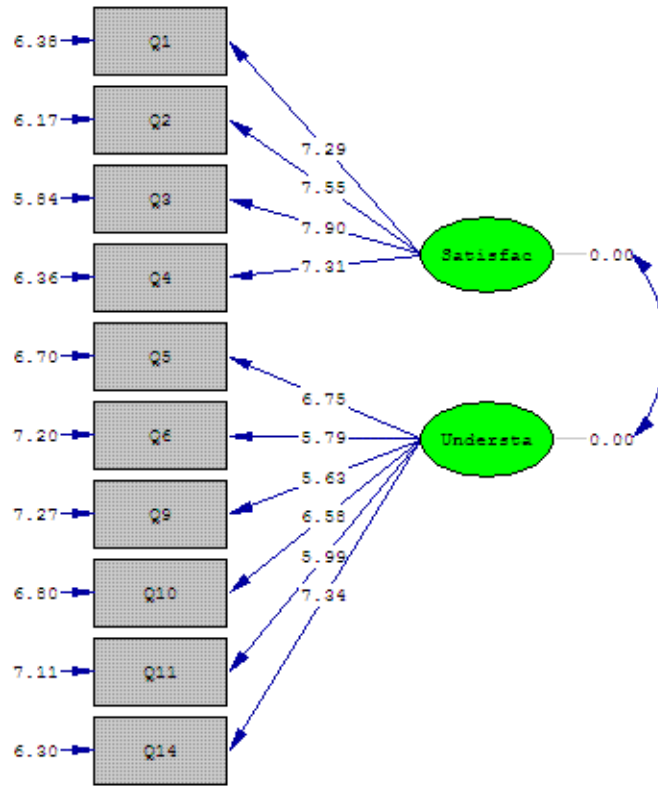
APPENDIX B

FIGURES FOR THE *CFA* IN THE VALIDATION GROUP



Chi-Square=42.36, df=34, P-value=0.15390, RMSEA=0.043

Figure 2. The standardized structure coefficients for the CFA in the validation group.



Chi-Square=42.36, df=34, P-value=0.15390, RMSEA=0.043

Figure 3. The *t*-values for the CFA in the validation group.

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