Implications of Intensive Behavior Treatment Programs on Long-Term Educational Gains for Autistic Students

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IMPLICATIONS OF INTENSIVE BEHAVIORAL TREATMENT PROGRAMS ON LONG-TERM EDUCATIONAL GAINS FOR AUTISTIC STUDENTS

A Research Project submitted in partial fulfillment of the requirements for the degree of

MASTER OF EDUCATION

to the faculty of the department of

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at

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Boca Raton, Florida
by
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(Student’s signature) (Mentor’s signature)
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Chapter One

Introduction

There are approximately 350,000 autistic individuals in the United States. Until twenty years ago, eighty percent of the autistic population was institutionalized, but now that number is between twenty and forty percent (Buchalter, 1996). The standard placement for autistic children has been in institutions, or in classrooms for emotionally disturbed students (Carr and Durand, 1987). Recent research developments are leading toward the conclusion that extensive behavioral treatment and inclusion in regular classroom settings would improve the educational prognosis of autistic students (Lovaas, 1987).

Autism is a serious psychological disorder with onset in early childhood. Autistic children can show minimal emotional attachment, absent or abnormal speech, retarded IQ, ritualistic behaviors, aggression, and self-injury (Lovaas, 1985). A more detailed definition of autism is a severe disturbance or psychosis of childhood characterized by extreme social isolation, bizarre behavior, and delayed development, beginning in the first two and one half years of life (Kauffman, 1993). Autism has been a puzzle to researchers and has fueled much debate as to its causes and treatment. Results from behavioral interventions with autistic children have been both positive and negative.
During the first year of life, children normally show growing awareness of and responsiveness to their social environment. They recognize their mothers and other familiar faces, develop a social smile, lift their arms in anticipation of being picked up, and many other things. Autistic withdrawal often goes beyond simple unresponsiveness to stimuli (Kauffman, 1989).

During normal social interactions, people look at each other's faces and gaze at each other. Lack of eye contact is often interpreted as inattention or unwillingness to enter into an interpersonal relationship. It is a frequent component of autistic withdrawal. Autistic children often rely on furtive glances to interpret social cues. Failing to look at peoples' faces could be one reason autistic children have difficulty interpreting others' emotions and learning communication skills (Kauffman, 1989).

Negativism is a frequent feature of some autistic children's behavior. It is often characterized by bizarre mannerisms and/or self-injurious behaviors such as hand-flapping or pinching. It is thought of as a highly effective way to keep people at bay and maintain social isolation. (Ibid. 1989).

Over selective responding in autism refers to responding to only a narrow range or single dimension of complex social stimuli. When presented with a written word, for example, they may pay attention to only one letter or even to an irrelevant
mark on the paper. Another example of over selective responding is that an autistic child may only recognize his father when he is wearing his glasses, because the glasses are the only thing to which he has paid attention. It is thought that over selective attention to a single dimension of spoken language, may be the basis for nonverbal and echolalia children's difficulties in language learning. (Schreibman, Kohlenberg, & Britten, 1986).

Most autistic children exhibit severe language disorders. About fifty percent are mute, having no functional oral language (Kauffman, 1989). Others are echolalic, parroting whatever they hear. Some autistic youngsters refer to themselves in the third person, using he for I, or her for me. Still other autistic children are neither mute nor echolalic, but have no functional language. Their speech consists of random jargon or "neologisms" that cannot be used for meaningful communication (Kauffman, 1993).

Some autistic children cannot tell the difference between fantasy and reality. Excessive fantasy could be considered covert or cognitive self-stimulation, and is sometimes evident in extremely withdrawn children. Fantasy is a normal activity for most people, however, when fantasy dominates thought and interferes with ongoing behavior and reality, it is a form of withdrawal (Kauffman, 1989).

Self-stimulation can take an infinite variety of forms. It can include rocking,
spinning, hand flapping, or repeating the same vocalization over and over. It is obviously a way to obtain self-reinforcing or self-perpetuating sensory feedback. In autistic children, self-stimulation is often low level, socially inappropriate, and exhibited at such high rates that the children engage in few other pursuits (Ibid. 1989).

One of the most undesirable characteristics of autistic children is self-injurious behavior. Some autistic children injure themselves repeatedly and deliberately, in a most brutal fashion. There can be a risk that the child will permanently disfigure, incapacitate, or kill himself. A few specific examples of self-injurious behaviors are hitting or slapping themselves, banging their heads against the wall, pulling out their bodily hair, or sticking sharp objects into their skin.

For many years, no scientific evidence showed that any interventions or treatments brightened the children's long-term prognosis (Lotter, 1978). As a result of ongoing research, behavioral treatment of these children has been found to increase adaptive behaviors such as language and social skills, while decreasing disruptive behaviors such as aggression (DeMyer, Hingtgen, & Jackson, 1981). Recent findings have also indicated that behavioral treatment, though very controversial, has developed to the point that it can produce substantial
improvements in the overall functioning of young children with autism (McEachin et al. 1993).

One significant study was conducted by O. Ivar Lovaas in 1987. Lovaas evaluated the effects of intensive behavioral treatment on autistic children and a control group over a two-year time period. The data presented in the dissertation by Lovaas suggested that behavioral treatment is effective (Lovaas, 1987). A follow-up study by McEachin et al. (1993) with the same group of students corroborated these results.

Some behaviorists view autism as a learning disorder (Smith, 1993). In 1982, Eric Schopler founded Division TEACCH (Treatment and Education of Autistic and related Communication handicapped CHildren), a statewide program in North Carolina (Schopley & Olley, 1982). Schopler and his associates created a program that would draw upon behavioral procedures to teach self-help skills and manage disruptive behaviors.

In 1972, the North Carolina General Assembly passed legislation mandating the creation of the Division for the Treatment and Education of Autistic and Related Communication handicapped CHildren. Located in the Department of Psychiatry, School of Medicine at the University of North Carolina at Chapel Hill, the program was named Division TEACCH. It was the first statewide, comprehensive
community-based program dedicated to improving the understanding and services for autistic and communication handicapped children and their families.

The TEACCH Program has maintained a rigorous empirical research orientation since its beginning as the Child Research Project in 1964. At the clinical and educational level, this means a diagnostic understanding of autism based on direct evidence rather than mere speculation. At the research level, it means studies related to needs of clients and their families. Integration of intervention and research is a strength and important priority of the TEACCH Program (Division TEACCH, 1995).

According to TEACCH literature, the TEACCH Program has received National and International recognition and is widely regarded as an outstanding model of service, training, and research. In 1972, the Program was given the Gold Achievement Award by the American Psychiatric Association “for the establishment of productive research on developmental disorders of children and the implementation of an effective clinical application.” A National Institute of Mental Health Publication, Families Today, prepared for the 1980 White House Conference on the Family, described TEACCH as “the most effective statewide program available to autistic children in the country.” The American Psychological Association’s Division of Clinical Child Psychology recognized TEACCH as a
model national program for service delivery to children and their families.

Numerous individual awards have been given to the founder and current directors of the program for their roles in implementing this exemplary model. Division TEACCH makes important contributions to service, training, and research (Division TEACCH, 1995).

Division TEACCH is an international center for interdisciplinary training in autism. Professionals from over 45 states and 20 foreign countries have participated in TEACCH training activities during the last few years. TEACCH training programs are offered on several topics: diagnosis, assessment, structured teaching, educational services residential and vocational programs and parent training.

Some of the main principles of the TEACCH program include “normalizing” experiences for autistic student, and individualization, which when properly carried out, leads to optimal unique solutions for each student based on his or her needs rather than ideology. The heterogeneity one sees in autism results in many options and possibilities, not one solution for all. Reliance on empirically-based approaches rather than ideologically-based philosophies assures that the treatment and education of autistic children begins with and emphasizes an understanding the problems of autism.
Inclusion is another essential component of the TEACCH program. TEACCH proponents argue that segregating children in special classes or programs denies these children access to normal classes, and denies them access to normal experiences. They also maintain that segregated services have not resulted in adequate education for handicapped. Inclusion advocates support the notion that each child has a right to be included, and that necessary support services and accommodations to the child’s handicap must be made within the regular classroom (Simpson & Sasso, 1992).

There are many options available within the TEACCH model. One can find highly structured, intensive specialized classrooms for autistic, cross-categorical classrooms that serve one or more students with autism, and regular education classrooms that serve one or more children with autism. TEACCH is a flexible program oftentimes placing children with autism in a combination of educational settings.

The highly structured classroom is the backbone of the TEACCH program. TEACCH therapists, teachers, and parents discovered that autistic children learned best when the environment was structured for them (Division TEACCH, 1995). Several important strategies are utilized to accomplish this. Unnecessary auditory and visual stimuli are eliminated, verbal instructions are downsized to simple
routine words and phrases, and the students' visual strengths are used by setting up activities in which the expectations are visually clear.

Another important intervention is to develop routines and schedules. In addition to this, TEACCH teachers emphasize a step-by-step teaching of vocational independence and spontaneous communication skills. They also plan structured experiences for acquisition and reinforcement of social skills (Ibid.1995).

Schopler and his associates concur with the behavioral view that autism is best conceptualized as a learning disorder (Schopler and Olley, 1982). They draw upon behavioral procedures to teach self-help skills and manage disruptive behaviors. They assert that teaching methods derived from the personal experience of the students are more likely to produce satisfactory results. Students involved in Division TEACCH spend most of the day in classrooms with children who have similar problems. However, their schedule includes being with "normal" or "average" students during recess, playtime, music or other special activities (Wooten & Mesibov, 1986).

Schopler and his associates depart from traditional behavior treatment by discouraging the procedures for teaching language (Schopler, Reichler, & Lansing, 1980). They maintain that such procedures result in poor generalization, and they assert that teaching methods derived from personal experience are more likely to
Division TEACCH has been a leader in the field of educational services for autistic children for over two decades. During this period, TEACCH has advocated and helped develop quality programs for autistic students consistent with the legal mandate for education in the least restrictive environment. TEACCH was present in the public school classroom even before the passage of P.L. 94-142, in 1976, which guaranteed a public school education for all handicapped children (Division TEACCH, 1995).

Historically, autistic children have been placed in emotionally handicapped classrooms. There were no special provisions made for them (Carr and Durand, 1987). In order for the School District of Palm Beach County to provide special programs for autistic children, a working definition had to be developed. Autism is defined by Palm Beach County as:

"A disability reflected in severe disorders of communication, behavior, socialization, and academic skills, and whose disability was evident in the early developmental stages of childhood. The autistic child appears to suffer primarily from a pervasive impairment of cognitive and perceptual functioning, the consequences of which are manifested by limited ability to understand, communicate, learn, and participate in social relationships" (School District of Palm Beach County, 1995).

They further defined the criteria, consistent with the definition, to determine
each student's eligibility for a special program.

"There must be evidence of the onset of the disorder at birth, or during the first three (3) years of life. The child must exhibit evidence of severely delayed or absent speech and language skills. There must be evidence of impaired, or a complete lack of emotional/social relationships. The child must exhibit abnormal responses to stimuli which may involve any or all of the sensory modalities. Finally, there must be evidence of a severe functional retardation which may be accompanied by normal or superior abilities in some areas" (Ibid. 1995).

Students are eligible for services from their third birthday until they graduate (receive a regular or special diploma or certificate of completion) or through the school year in which they turn 21. The District requires that before a student can be dismissed or reassigned from a special program for autistic students, there should be evidence that the student can function appropriately in a regular classroom or meets the eligibility criteria for another special program. The transition out of a special program for autistic students should be a gradual process. Review of the child's progress by the child study team should be an ongoing procedure.

The final statement of the district's policy contains the basis of the educational approach for these students.

"Autism involves a spectrum of disorders which affect children in varying degrees of severity. Programming for these students must reflect the wide range of functioning in the population and must accommodate their diverse self-regulatory, social interaction, communication and academic needs."
However, many elementary school age autistic students will need a language-intensive, language-centered curriculum with a strong behavior management component, in a tightly structured environment” (Ibid. 1995).

On the campus of a local middle school, there was an autistic component that was created in 1995. It was based on the TEACCH (Treatment and Education of Autistic and related Communication handicapped CHildren) model of Eric Schopler (1982). The program consists of four autistic students who had previously been in emotionally handicapped classrooms. Until middle school, they had not made any significant educational or behavioral gains. The problem I have investigated is whether intensive behavioral treatment results in significant educational and behavioral gains for autistic students. This thesis has examined several behavioral intervention studies, and reports on the effects of behavioral treatment of autistic students in a local classroom.

In addition to their regular classroom schedule, the autistic students were included in a gifted/autistic inclusion drama class one period per day, five days per week. This class contained 36 students: four autistic students, four mentally handicapped, and the remaining gifted. Only one classroom aide accompanied the autistic students to the drama class.

The autistic students were expected to contribute to the drama class. In November 1996, the class collectively wrote a play and performed it. The autistic
students each had a function. One student recited an introduction, and the three others held up flags.

There are two major questions to be examined and answered in this thesis. Until middle school, the four autistic students being observed were placed in self-contained classrooms with emotionally disturbed students. They have now spent approximately one and a half years in a self-contained autistic classroom receiving intensive behavioral management treatment. The first questioned that was examined was, “Does intensive behavioral management treatment result in significant gains in academic achievement and social behavior?”

Since the autistic students were included in a gifted/drama class this school year, the second question that was examined was, “Does the inclusion of autistic students in special classes improve their social behavior?” These questions were addressed by parent interviews, comparison of previous and present DSM III-R (APA, 1987) scores, Child Behavior Checklist scores (Achenbach & Edelbrock, 1991), observations, questionnaires, and current and past report cards.
Chapter Two

Literature Review

Autism was first defined in 1943 by L. Kanner, who described children who exhibited a serious failure to develop relationships with other people before 30 months of age, had problems in language development, and exhibited ritualistic and obsessional behaviors. Kanner, of Johns Hopkins University, also believed that they had a potential for normal intelligence. His description of his first experience with children who would later be said to have "Kanner's Syndrome" contributed immeasurably to the field of research.

"In October 1938, a 5-year-old boy was brought to my clinic from Forest, Mississippi. I was struck by the uniqueness of the peculiarities which Donald exhibited. He would, since the age of two and one half years, tell the names of all the residents and vice-presidents, recite the letters of the alphabet forwards and backwards, and flawlessly, with good enunciation, rattle off the Twenty-Third Psalm. Yet, he was unable to carry on an ordinary conversation. He was out of contact with people, while he would handle objects skillfully. His memory was phenomenal. The few times when he addressed someone largely to satisfy his wants, he referred to himself as "you" and to the person as "I". He did not respond to any intelligence tests, but manipulated intricate form boards adroitly." (Kanner, 1973a p.93)

Behavioral treatment for autistic children began in the 1960's (Ferster, 1961). Ferster made the first attempt to understand autistic children from a behavioral perspective at a time when most professionals viewed autistic children's problems as indicative of an underlying emotional disturbance. Ferster, however, suggested
that their problems could instead be viewed as a failure to learn. He hypothesized that their failure to learn was the result of inadequate parenting. He believed that stimuli such as praise and attention, as well as food, had reinforcing properties that the children could form.

Ferster and DeMyer (1961, 1962) performed a series of laboratory studies in which autistic children acquired simple behaviors such as pulling levers to be reinforced with food. Although Ferster's theory of inadequate parenting is no longer tenable, his work was very important. It was the first to show that learning theory might be applicable to teaching autistic children (Lovaas & Smith, 1989). Preliminary studies using behavioral treatment showed small improvement, with only one in 64 subjects with autism considered free of clinically significant problems by adulthood. More than sixty percent of the subjects remained severely handicapped and institutionalized (Rutter, 1970).

Behaviorists break down autism into separate behavioral problems and attempt to treat as many of these problems as possible. This approach differs from that of other professionals, who aim to identify a central problem, such as a failure to bond, or a sensory-motor deficit, which becomes the main focus of the treatment. Behavioral treatment has developed slowly and cumulatively, as interventions for different problems have been identified one at a time in data-based investigations.
Thus, behavioral treatment has become increasingly complex over time, and advances continue to occur (Kauffman, 1993).

Studies on behavioral treatment almost always use single-subject experimental designs. The majority of effective interventions use principles derived from laboratory studies on learning, particularly in the area of operant conditioning. Hence, behaviorists view autism as a learning disorder (Smith, 1993). One proponent of this theory is Eric Schopler who founded Division TEACCH, a statewide program in North Carolina (Schopler & Olley, 1982).

In one early study Schopler, Mesibov & Baker, (1982) evaluated the effectiveness of the Project TEACCH classrooms. The subjects of this study were 657 past and current clients of Project TEACCH. Only fifty-one percent had been diagnosed with autism. The remainder suffered from other unspecified communication handicaps. The clients ranged in age from two to twenty-six years old. One group had received only a diagnostic evaluation; a second group had a diagnostic evaluation and parent training; a third group had a diagnostic evaluation and placement in a classroom; and the fourth group had participated in a diagnostic evaluation, parent training, and placement in a special education class (Smith, 1993).

This study was critiqued by Tristam Smith (1993). Smith, a frequent
participant in the Lovaas studies, stated that there was much missing data, and that procedures for selecting subjects was not specified. He determined that this study contained a number of serious methodological difficulties. He believed that the subjects were too heterogeneous, assignment procedures were not described, and that respondents may have been under pressure to give favorable ratings.

Another extensive study of behavioral treatment of autistic students was conducted by O. Ivar Lovaas (1987), in which an experimental group of 19 preschool children with autism achieved less restrictive school placements and gained higher IQS than did a control group of 19 similar children by age seven. In the original study, 40 hours of behavioral treatment per week was administered to the experimental group by student therapists on a one-to-one ratio for a period of two years, while only 10 hours of behavioral treatment per week was administered to the first control group. A second control group did not receive any special treatment. When the subjects were reevaluated at a mean age of seven years, the subjects in the experimental group gained an average of 20-30 IQ points. Nine of the original 19 subjects completed first grade in regular education classes and had IQS in the average range.

The data presented in the dissertation by Lovaas (1987) suggest that behavioral treatment is effective. However, there is some question as to the
durability of the results. For example, in a prior major study, Lovaas, Koegel, Simmons, and Long (1973) found that children with autism regressed following the termination of treatment. Other studies have shown that children with autism may develop other difficulties when entering adolescence (Kanner, 1971; Waterhouse & Fein, 1984). Because of these and other findings, McEachin, Smith, and Lovaas found the need for a more detailed assessment, and for continued follow-ups of the same group over time.

The McEachin et al study (1993) was a follow-up on the original Lovaas study conducted in 1987. McEachin, Smith and Lovaas developed a two-part experiment. The purpose of the study was to find out if the original experimental group in Lovaas' study (1987) maintained its treatment gains several years after the evaluation at age seven, and to what extent the nine subjects who had achieved the best outcomes at the end of first grade in the Lovaas (1987) study be considered free of autistic symptomatology.

The significance of the McEachin et al. (1993) study was that it showed that behavioral treatment of children with autism had a positive impact on their prognosis. It was an encouraging sign that treatment gains were maintained for an extended period of time. It will encourage researchers to continue to investigate the effects of long-term behavioral treatment on autistic children.
Though the researchers took numerous precautions, several concerns were raised about the validity of the results due to the alleged “lack of random assignment” (Schopler et al. 1989). For example, Schopler, Short, and Mesibov (1989) criticized this investigation on a number of grounds. Their most significant criticism was that Lovaas’s criteria for selecting subjects, when compared to selecting children in Schopler et al.’s treatment program, excluded 57 percent of their referrals, and only accepted the high IQ scores for treatment. If correct, this argument implies that Lovaas’s (1987) study had little value.

Another criticism of the Lovaas (1987) study was that assignment to the experimental or control group was made on the basis of therapist availability rather than a more random procedure (Baer, 1993). Also, it was not known whether there existed a pretreatment variable that does predict outcome but was not among the 19 subjects chosen. If such a variable were discovered, assignment could have been made to each group (McEachin et al. 1993).

According to the Lovaas (1987) study, which was the basis for the McEachin et al. (1993) study, the 38 subjects were selected at random. At intake, they were very young, less than 40 months if mute, and less that 46 months if echolalic. They were randomly placed into two groups, the experimental group which received 40 hours of one-on-one behavioral treatment per week, and a control group who
received only 10 hours per week of behavioral treatment.

A very important limitation of the McEachin et al. (1993) study was the unavailability of the second control group, the group who received no behavioral treatment at all in the original experiment. This group, consisting of 21 subjects did not differ from either the experimental group or the first control group at intake. Examining their present state of progress might skew the findings of this follow-up study (Baer 1993).

Inclusion is a fundamental feature of many special education reform initiatives. It is believed by some researchers to be the next logical step in securing appropriate and legally required services for children with disabilities, including those with autism. (Dyke, Stallings, and Colley, 1995); Gartner and Lipsky, 1989, National Association of State Boards of Education, 1992; Stainback and Stainback, 1992). It is an essential component of the TEACCH model (Division TEACCH 1995).

The philosophical position of inclusion of the TEACCH program is based on two arguments: They believe that segregating children in special classes or programs denies these children access to normal classes and denies them access to normal experiences. Furthermore, they believe that segregated services have not resulted in adequate education for autistic students (Division TEACCH, 1996).
Although TEACCH proponents adhere to “least restrictive environment” as a guiding principal, and that no person with autism should be unnecessarily or inappropriately denied access to meaningful educational activities, they note that the concept of “least restrictive environment requires that appropriate learning take place.”

Other researchers such as Kauffman and Hallahan (1994), and Rimland (1994) do not believe inclusion is right for all students. In a particularly negative statement, Kauffman and Hallahan describe inclusion as “special education’s largest bandwagon ever” (1994). They go on to state that, “It is a crusade whose size, velocity, and direction have become potentially fatal, not only to those on board, but to the entire special education community through which it is traveling.” They conclude their remarks with the opinion that, “Full inclusion is lacking scientific foundation” (Ibid 1994).

Rimland, a moderate on the subject, maintains that inclusion is right for some, but not all autistic students. He is opposed to full inclusion, and calls any organization that endorses it “extremist”. His greatest fear is that, “If special education for autism is destroyed, it will be lost for at least one generation, and perhaps several” (Rimland, 1994).

Rimland criticizes educators who consider full inclusion an “issue of
morality”. He maintains that there is a greater morality: lack of progress. (Rimland, 1994). Another article specifically focused on inclusion of students with autism, also lamented that much of the debate over inclusion was based on “references to the moral and just thing to do” rather than “scientifically established benefits” (Simpson and Sasso (1992). The present dilemma is to determine whether or not there have been any scientifically established benefits associated with inclusion.

There is little question that issues surrounding inclusion will continue to be a major issue in the debate on how best to serve children with autism in the future. Common sense and research (Harris, 1974; Myles and Simpson, 1989) both indicate that smaller class size is an essential factor in successfully supporting students with autism in regular education settings. Myles and Simpson (1989) found that 78 percent of general educators considered class size to be an important inclusion issue, with most teachers believing that class size no larger that 15 to 19 students is needed to successfully accommodate children with autism.

The need for staff training for students with autism is obvious. When teachers of children with autism are specifically trained to use appropriate methods and procedures, desired student outcomes have been attained. When opportunities were provided for general education teachers to collaborate, consult, and engage in cooperative problem solving with professionals who possess experiences and skill
in working with students with autism, student successes have increased (Simpson, 1995).

An equally important determinant of inclusion success is the support and acceptance of students with autism by their normally developing peers. Positive attitudes toward students with autism do not naturally occur (Ibid 1995). For that reason, a number of programs and procedures that provide information about the characteristics and needs of children with autism have been developed to aid in promoting appropriate interactions between students with and without disabilities (Sasso, Simpson, and Novak, 1985).

A result of the initial success in teaching children with autism in inclusive classrooms, was the logical assumption that children with autism could be taught to look at others, make eye contact, imitate language and elaborate speech forms (Kennedy and Shukla, 1995). This occasioned a series of studies by researchers attempting to take these propositions in important new directions. In particular, peer-mediated strategies were found to be very effective in increasing social interactions and facilitated the generalization and maintenance of social behavior (Odom, McConnell, and McEvoy, 1992). It was determined, however, that extensive teacher training were required to enable peers without disabilities to engage in mediation behaviors (Goldstein and Wickstrom, 1986).
The use of peer-mediated strategies have been used to increase the social competence of students with disabilities. (Odom and Strain, 1986; Shores, 1987). These strategies use peers as instructional resources. Typically, a nondisabled peer is trained by an adult to interact effectively with a student with disabilities. These trained peers prompt social responses from students with disabilities by modeling and reinforcing appropriate social behavior.

In one study, in which qualitative as well as quantitative social interactions were documented and generalized, Mundschenk and Sasso (1995) teamed three students with autism with fifteen nondisabled students at the same elementary school. The nondisabled peers were selected by the classroom teacher from a list of “high status volunteers” who demonstrated competence in social interactions. The success of the experiment was largely attributed to the extensive training given to the volunteers (Ibid 1995).

Application of the peer-as-social-agent strategy is also evidenced in how teachers physically included students with and without disabilities in classroom activities to reduce social deficits. It was hypothesized that placing general and special education student in the same classroom environment would enable students to observe and learn socially appropriate behaviors from their more advanced peers (Kennedy and Shukla, 1995). In a recent study, Fryxell and Kennedy (1995)
compared peer-related social interactions of students with autism in self-contained classrooms versus inclusive environments. The outcomes for students with autism clearly demonstrated that inclusive environments provided a much higher level of social integration and reciprocal social interaction. Once again, training was the essential ingredient in the success of the program.

Behavioral treatment has developed slowly and cumulatively over the past thirty years. There is much evidence to show that behavioral treatment is an effective intervention for autistic children (Lovaas 1989, McEachin 1993). Based on the information gathered from past written research, there remain some questions that need to be answered. My study is directed toward discovering whether behavioral intervention treatment with an inclusion component can improve the educational and social prognosis of autistic students.
Chapter Three

Research Design

Methodology and Procedures

My research methodology and design emerged after studying the work of O. Ivar Lovaas (1987), McEachin et al. (1993) and Eric Schopler (1982), researchers who used structured behavioral programs with autistic students to determine long-term educational and social gains. The results of these studies indicated that behavioral treatment of autistic children had a positive impact on their prognosis (McEachin et al., 1993 and Schopler, 1995).

The Lovaas study (1987) was characterized by a standard, simple, powerful, and experimental quantitative design. A quantitative design utilizes a functionally random assignment of subjects to groups. The researchers conducted a careful examination of the results of that assignment prior to intervention, used a wide range of outcome measure and paid careful attention to appropriately blind testing whenever possible (Baer, 1993).

My study parallels the Lovaas (1987) study in the use of standardized tests of intellectual and adaptive functioning to determine a baseline from which to measure progress. Information was obtained from the subjects parents and teachers through the use of interviews. Data was also obtained from the students’ files. Finally, data
was obtained through observations in the students’ natural classroom settings. It was impossible, however, due to time limitations and the lack of trained personnel, to conduct a quantitative study.

Data for my research project was gathered by combining multiple methods of qualitative data collection. According to Maykut and Morehouse (1994), “qualitative research design is characterized by an emergent design or focus of inquiry where people are the subjects. The design emerges by pursuing important early discoveries. Important leads are identified in the early phases of the data analysis and pursued by asking new questions, by observing new situations or previous situations with a slightly different slant, and by examining previously unimportant documents” (p.44).

The participants are carefully, rather than randomly selected for inclusion in the research. Purposeful sampling increases the likelihood that variability common in any social phenomenon will be represented in the data. In contrast, random sampling tries to achieve variation through the use of random selection and large sample sizes (Maykut and Morehouse, 1994).

An important characteristic of qualitative research design is the use of a natural setting in observations. The natural setting is the place where the researcher is most likely to discover or uncover what is to be known about the phenomenon of
interest. The researcher in qualitative research design is responsible for collecting and interpreting the data, which includes observations, questionnaires, and test instruments whenever possible (Maykut and Morehouse, 1994).

According to Maykut and Morehouse (1994), “a researcher’s focus of inquiry may suggest that the information that will most likely yield an understanding of the phenomenon under study is contained in personal documents” (p.111).

In order to effectuate my research, I spent several hours examining the files of the four students. I examined previous test scores and IEPs. Strengths to be identified included normal intellectual functioning, good relationships with family members, ability to function independently, appropriate use of leisure time, and adequate socialization. I was then able to compare the results of past and present testing to draw conclusions as to whether intensive behavioral treatment has resulted in social and educational gains.

Interviewing is a frequently used assessment technique that has been called “the universal tool for collecting information about a child’s behavior and its possible causes” (Morgan & Jenson, 1988). As part of my research collection, I conducted parent and teacher interviews, and observations of the students who had been documented as autistic by medical and educational professionals. The
interviews focused on the four middle school students in the autistic or “cross categorical” classroom. All interviews were conducted utilizing tape recordings to reaffirm conversations for later review and interpretation. Following the interviews, the tape-recorded results were transcribed into written form.

Data analysis consisted of three concurrent flows of activity: data reduction, data display, and conclusion drawing and verification (Miles and Huberman, 1984). In order to assimilate the data I collected, I began by conducted a cross-case analysis, comparing social histories and IEPs. I observed the students in their classrooms and a new Child Behavior Checklist (Achenbach & Edelbrock, 1991) was administered by myself and the two other teachers involved with the autistic students. The school psychologist, Stan, administered the Vineland Adaptive Behavior Scales (Sparrow et al. 1984).

Prior to beginning the actual observations and research, I remitted letters to the homes of the four students in the autistic classroom, as well as the students in the inclusion class. These letters explained the intent of my research, authorized permission to observe the students and requested an interview with the parents. (See Appendices A, B, and C). All of the letters were returned by the autistic students’ parents, but only fifteen of the parents of the gifted students returned their questionnaires.
In order to gain further background information, I developed a questionnaire for the parents of the autistic children (see Appendix D) which was in the form of a social history and adaptive behavior scale (Vineland Adaptive Behavior Scales, 1984). The questions were modified to fit the purpose of this study. I believe it was necessary to create my own questions to personalize the interview process, and to update specific information found in the students’ IEPs.

The questions were designed to assess a variety of possible deficits common to autistic children, such as idiosyncratic thought patterns and mannerisms or interests, lack of close relationships with family and friends, and difficulty in getting along with people were assessed. Other areas of assessment were relative weaknesses in certain areas of cognitive functioning such as abstract reasoning, not working up to ability in school, flatness of affect, and the absence or peculiarity of a sense of humor.

I also remitted a questionnaire to the parents of the gifted students (see Appendix E). The purpose of this questionnaire was to examine the attitudes of the gifted parents toward the inclusion classroom. I included some questions about the personal background of the gifted students.

Finally, I developed a questionnaire for the personnel (see Appendix F) based on the goals of the TEACCH program (Division TEACCH, 1995). The
questionnaire was issued to the teachers and assistants to determine the degree of training they had received. According to some researchers, teachers and assistants should have sufficient training to properly teach autistic students. (Simpson, 1992).

I interviewed the administrators, teachers and assistants at “A.” Middle School in person (see Appendix F), but conducted the interviews with the parents of the autistic students over the telephone. The interviews were directly transcribed onto the computer. Because of the lack of reliability studies on the questions asked, the findings can only pertain to the students studied in this setting.

The following pseudonyms will be used to assure anonymity and differentiate the students: Greg, Donny, Fay and Larry are the autistic students, Ms. Wexler is their teacher, and Ms. B. is the gifted/inclusion teacher. The administrators at “A.” Middle School will be referred to as Ms. Tepsic, Program Planner for Palm Beach County, Miss Vicki, the ESE coordinator, and the school psychologist, Stan.
Chapter Four

Presentation of Data

Profile of the Students

In a presentation at the American Psychological Association in Washington, D.C., in 1982, Ivar O. Lovaas determined that his behavioral treatment project, begun in 1970, was successful, and promised a major reduction in the emotional hardships of families with autistic children. Realizing that it would be unlikely that another therapist or researcher could replicate easily the one-to-one behavioral treatment program, Lovaas emphasized the importance of early intervention in the treatment of these children. He also highlighted the previously unexplored area of mainstreaming older autistic children (Lovaas, 1986).

Testing is an important method of evaluating progress and determining individual student needs. Consistency and preciseness are mandatory in effective assessment. Formal and informal assessments, interviews and observations are essential tools in the diagnosis and proper placement of children into special education classes (Overton, 1992).

The students in the autistic program at “A.” Middle School were all tested with a variety of testing instruments, formal and informal, before initial placement into special education programs. This information was useful to me in my
determination of the effects of behavioral treatment on the education and social prognosis of these autistic students. I conducted interviews with teachers, administrators, and parents, made numerous classroom observations, and finally administered the Child Behavior Checklist (Achenbach & Edelbrock, 1991).

There were certain similarities in the social histories of the four students in the autistic classroom at "A." Middle School. The students in Ms. Wexler's class were all identified at an early stage in their development. None of them, however, had received any behavioral treatment targeting autism. Although they resided in various parts of the United States, another similarity was that they were all placed in special education classes that primarily included other disabilities.

The autistic program at "A." Middle School came into being during the 1995/1996 school year. Ms. Wexler is the primary teacher. Ms. Wexler has a bachelor's degree in specific learning disabilities from a local university. The only training she received to teach autistic students was to attend several workshops based on the TEACCH model of Eric Schopler (1982). She teaches these students four periods per day.

Donny is a 12-year-old student in Ms. Wexler's class. He has just finished his first year at "A." Middle School. According to his teachers, he has grown more this year and matured both physically, mentally and emotionally. He loves school
and looks forward to school every day. Donny was referred to an autistic classroom according to state and federal guidelines (see Chapter 1).

In elementary school it was decided that his level of compliance and task commitment was inappropriate. The child study team referred Donny for diagnostic testing in 1989. He was tested by the school psychologist at his elementary school. He was given the Woodcock Johnson Reading Mastery-R (Woodcock, 1987). He had a K-3.2 grade equivalence. His strength was word recognition. He could use sound symbol association to decode. Unfortunately, when given the Key Math Test (Connolly, 1988), his raw scores were zero.

The next procedure was to administer the Child Behavior Checklist (Achenbach & Edelbrock, 1991). He scored highly in the areas of social withdrawal, self-destructive behavior, inattentiveness, nervous/overactive and aggressive behaviors. In addition to this, behavior observations by teachers and school psychologists were done over a period of time.

It was determined by observations that he was self-injurious, pinching himself frequently. While Donny was able to exhibit some communication and social behavior skills, he frequently used language self stimulation (repeating sounds or words), and spontaneous language (short phrases or one-word utterances). He exhibited difficulty responding to verbal questions and self-talk.
The Child Behavior Checklist (Achenbach & Edelbrock, 1991) revealed three characteristics: occasional fixation on visual cues (sign/color), covering ears (auditory defensiveness), and demonstrating little visual reaction to new persons within the environment. Delayed and deviant pattern of social relations were observed during classroom play time. He did not directly engage in activities, and most of the time he avoided social contact. Donny exhibited peculiarities in motor movement such as “toe walking”, and “hand flapping”. He often covered his ears to reduce unwanted stimulation. These attributes are common in autistic children.

Finally the Vineland Adaptive Behavior Checklist (Sparrow et al. 1984) was administered. The Vineland is an individual assessment of adaptive behavior. Adaptive Behavior is defined as performance of the day-to-day activities necessary to take care of oneself and get along with others. The Vineland covers four adaptive behavior domains: Communication, Daily Living Skills, Socialization, and Motor Skills. It also provides an Adaptive Behavior Composite score. This test has a mean of 100 with standard deviation of 15 (Sparrow et al. 1984).

Donny's overall score was 49 which indicated an age equivalence of 3-4. In the communication domain his score was 50+7 (age equivalence of 3-4). The daily living score was 51+5 (age equivalence 3-10). Social was 47+6 (age equivalence of 1-3).
Donny has several personal strengths. His visual memory is good, and he has a love for music. People like him once they get to know him because of his positive attitude. He desires to have people around him which is unusual for someone with autism. He is also capable of using computers and other electronics.

The second member of Ms. Wexler's class is Greg. He is 12 years old. In 1990, while living in another state, he was referred for early intervention services by his pediatrician. His elementary school teachers described him as being “academically delayed” due to severe anxiety, perseveration, and fragmented thoughts. He was referred for child study and eventually placed in a self-contained classroom for severely emotionally maladjusted students. For the rest of his elementary school career he was placed in self-contained, emotionally handicapped/varying exceptionalities classrooms.

The family moved to Florida in 1993. Greg was referred to the child study team for evaluation. After testing, Greg was placed in a specific learning disabilities classroom and referred for evaluation by the school psychologist. There was no intellectual assessment available at this time, however, on the KTEA (Kaufman Test of Educational Achievement 1985), Greg scored a 1.1 grade equivalence. Also at this time, when the speech and language pathologist tested Greg, he passed the vision and hearing tests. He is currently receiving speech and
language services.

In 1994, the school psychologist was able to administer the Stanford-Binet Abstract Visual Reasoning Test IV (Thorndike et al. 1986) to Greg, and his score was 55/68, which was low. He was also given the Vineland Adaptive Behavior Checklist (Sparrow et al. 1984) and received a score of 53, indicating his adaptive behavior was low.

The DSM-III-R (APA, 1987) is a psychiatric classification system developed by the American Psychiatric Association in 1980 to classify mental disorders in adults and children. The number of categories for use with children has been greatly expanded from previous editions to include mental retardation, attention deficit disorder, conduct disorder, anxiety disorder, pervasive development disorder, (childhood onset, infantile autism), and eating disorders. On the DSM III-R (APA, 1987), Greg scored high in the domains I, II, and V which involve internalizing and obsessive-compulsive behaviors.

At this point Greg was assigned to an emotionally handicapped/varying exceptionalities self-contained classroom. According to Greg’s teachers, his communication problems inhibited him from following a normal middle school curriculum. Greg required one-on-one assistance in all academics because he needed frequent visual and verbal prompts. He also had numerous social problems.
Greg is frequently absent due to severe gastrointestinal problems. Although he has been examined medically, his parents feel that his absences are due to being afraid to go to school. He has been in classes with Donny for several years and has often been the victim of Donny's aggression.

Academically, Greg's reading and math abilities are low (1.1 grade level). Greg can add and subtract, and total coin amounts. He can also identify money, but cannot use it functionally. He is beginning to understand the concept of time.

Greg's IEP addresses several domains: academic, communication/task related, and interpersonal relations. Academically, the goals addressed are to total and identify coin amounts, add and subtract, and tell time. While he is improving in this area, he is still not able to make change.

In the communication/task related domain, Greg must complete basic problem solving skills, complete basic sequencing tasks, and articulate his needs properly. He must answer who, what, where, when, and why questions in grade appropriate reading selection. He must identify the main idea of a story.

Another area of concern for Greg is interpersonal relations. Some of his goals are to demonstrate the knowledge of physical boundaries, to refrain from antagonizing other students, and to seek out a willing peer for leisure activity. He must also be able to identify consequences of his behavior, and safety hazards.
The third member of Ms. Wexler’s class is Larry. He lives at home with his biological parents. Larry has had multiple handicaps from birth. He is visually and physically impaired, and has occasional seizures. Prior to 1989, he was referred for testing while in preschool in Dade County. At that time he was placed in a class for trainable mentally handicapped students. He continued in the TMH classroom through elementary school in Palm Beach County.

A three-year reevaluation was administered in October of 1995. Larry was tested by the school psychologist. The Stanford-Binet Intelligence Scale -Fourth Edition (Thorndike et al. 1986) yielded an IQ score of 36 which put Larry in the trainable mentally handicapped range. On the Vineland Adaptive Behavior (Sparrow et al. 1984 ), Larry’s score was 45 which indicated he was severely autistic.

Larry was then placed in the autistic/cross categorical classroom in “A.” Middle School. His teachers report that he is cooperative and willing to please. He can identify words and numbers if they are in large print. He can count by 5, 10, and 25. He can identify large pictures of food. He is very verbal and repetitive, and speech and language impaired.

Larry’s task-related IEP goals address attending to tasks for four minutes at a time, and demonstrating the knowledge of male and female by utilizing Ms. or Mr.
In the self-management domain, Larry must remain with a group while participating in community-based trips, and demonstrate the ability to snap and button his pants.

The fourth member of the class is Fay, a thirteen-year-old female. She lives at home with her biological parents who are very supportive. She is higher functioning than the other members of the class. Her initial placement in March of 1993 was into a classroom for severely emotionally handicapped students with pull out speech and language services. At that time the school was unsure of a diagnosis of autism.

After her 3-year reevaluation in June of 1996, the school psychologist declared that she was mentally deficient with severe communication delays, and displayed the characteristics of autism. Her score on the Stanford-Binet Intelligence Scales-Fourth Edition (Thorndike et al. 1986) given in 1988, yielded an IQ score of 36. After retesting in June of 1996, her IQ score was determined to be 56.

On the Child Autism Behavior Checklist (Achenbach and Edelbrock, 1991) Fay displayed nine of the 13 signs associated with autism. Her scores were within the clinically significant range. Test scores on the Achenbach Child Behavior Checklist (Achenbach and Edelbrock, 1991) showed areas of concern in the attention and thought problem domains (see Table 1 and Figure 1).
Table 1

A Comparison of Achenbach Child Behavior Checklist Scores

<table>
<thead>
<tr>
<th>Domain</th>
<th>Fay Scores</th>
<th>Domain</th>
<th>Donny Scores</th>
</tr>
</thead>
<tbody>
<tr>
<td>Withdrawal</td>
<td>67</td>
<td>Withdrawal</td>
<td>85</td>
</tr>
<tr>
<td>Somatic Complaints</td>
<td>62</td>
<td>Somatic Complaints</td>
<td>75</td>
</tr>
<tr>
<td>Anxiety Depressed</td>
<td>70</td>
<td>Anxiety Depressed</td>
<td>73</td>
</tr>
<tr>
<td>Social Problems</td>
<td>77</td>
<td>Social Problems</td>
<td>77</td>
</tr>
<tr>
<td>Thought Problems</td>
<td>90</td>
<td>Thought Problems</td>
<td>85</td>
</tr>
<tr>
<td>Attention Problems</td>
<td>87</td>
<td>Attention Problems</td>
<td>95</td>
</tr>
<tr>
<td>Delinquency Problems</td>
<td>67</td>
<td>Delinquency Problems</td>
<td>54</td>
</tr>
<tr>
<td>Aggressive Behaviors</td>
<td>67</td>
<td>Aggressive Behaviors</td>
<td>68</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Domain</th>
<th>Greg Scores</th>
<th>Domain</th>
<th>Larry Scores</th>
</tr>
</thead>
<tbody>
<tr>
<td>Withdrawal</td>
<td>69</td>
<td>Withdrawal</td>
<td>73</td>
</tr>
<tr>
<td>Somatic Complaints</td>
<td>75</td>
<td>Somatic Complaints</td>
<td>74</td>
</tr>
<tr>
<td>Anxiety Depressed</td>
<td>72</td>
<td>Anxiety Depressed</td>
<td>69</td>
</tr>
<tr>
<td>Social Problems</td>
<td>80</td>
<td>Social Problems</td>
<td>66</td>
</tr>
<tr>
<td>Thought Problems</td>
<td>74</td>
<td>Thought Problems</td>
<td>69</td>
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<tr>
<td>Attention Problems</td>
<td>70</td>
<td>Attention Problems</td>
<td>72</td>
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<tr>
<td>Delinquency Problems</td>
<td>65</td>
<td>Delinquency</td>
<td>55</td>
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<tr>
<td>Aggressive Behaviors</td>
<td>77</td>
<td>Aggressive Behaviors</td>
<td>78</td>
</tr>
</tbody>
</table>
Figure 1
A Comparison of Achenbach Scores

- Donny
- Greg
- Larry
- Fay
- Normal Range
Fay was also given the Child Autism Rating Scale (Schopler et al. 1980). This test was designed to differentiate between developmental handicaps without autism, from developmental handicaps with autism. It consists of 15 items and is reported to distinguish autistic children with mild/moderate to severe handicaps. Ratings from the CARS test have 15 behavioral factors consistent with the symptoms of autism. Fay scored in the moderate to severe range with 12 out of the 15 behavioral factors present.

Finally, Fay was given the Vineland Adaptive Behavior Checklist (Sparrow et al., 1984). Her composite score was 59 indicating that her adaptive behavior was low (see Figure 2). During the assessment, Fay exhibited self-injurious behaviors and the examiner reported "minimal eye contact". She frequently shifted her focus.

**Interviews and Observations**

On January 24, 1997, I conducted my first teacher interview. I interviewed Ms. B., the gifted/inclusion teacher about the results of the inclusion experiment. I asked her to describe the classroom behavior of the autistic students in her class and she described the following behaviors to me:

"The classroom consists of 36 students, four of which are autistic and four are mentally retarded. The rest of the students are gifted. Only one classroom aide accompanies the autistic students to the classroom. The aide is virtually useless
Figure 2

Vineland Adaptive Behavior Checklist

Sparrow et al. 1984

Note: The Vineland Adaptive Behavior Checklist (Sparrow et al. 1984) is an individual assessment of adaptive behavior. The Vineland covers four adaptive behavior domains: Communication, Daily Living Skills, Socialization, and Motor Skills. It also provides an Adaptive Behavior Composite score. This test has a mean of 100 with standard deviation of 15 (Overton, 1992).
and has no special training.

Donny spends his class time humming, singing and making noises until someone tells him to stop. This makes it impossible for other students to learn in the classroom. Donny's mother thinks he communicates through his songs,

Greg sits under a desk holding his ears. He usually exhibits anxiety-type behaviors like rocking and hand-flapping. He cries and moans and doesn’t seem to like the noise in the room.

Fay seems to be getting the most out of this classroom. The gifted students recently wrote and performed a play in the evening for parents and teachers. The only criteria was that everyone in the class had to participate. Fay gave the introduction to the play and she did an excellent job.”

During the course of the interview, Ms. B. showed me a play that Fay wrote. Although there were no spaces between the letters of the words, it was legible.

Fay’s scene included obscene words and actions. Ms. B. says that Fay frequently draws sexual pictures and stories. She often tries to pull off her clothing during class times. Ms. B. is referring her to her guidance counselor for possible sexual abuse in the home.

Although this inclusion classroom is a component of the TEACCH model, Ms. B. has had no formal training. She is certified to teach specific learning disabilities and gifted students. She does not feel that the gifted students benefit from this class. She is unable to assign class work or tests. She feels that the experiment might have succeeded if there were fewer special education students in the class. “Only one parent of a gifted student has complained, Ms. B. said, “and
the complaint was that she didn't want her child in the same class with EH kids”.

I was able to observe the gifted/inclusion class on January 8, 1997. The class was chaotic. Ms. B. was attempting to direct a small group of gifted students who were reading a play. The autistic students seemed to be self-absorbed. Fay was biting herself, Donny was flapping his hands, Greg was sitting under a desk looking through a social studies book, and Larry was yelling, ”Bus time, time for the bus!”.

On several occasions I was able to interview Ms. Wexler, the primary teacher of the autistic students. To prepare her for teaching the autistic class, she had attended an intensive week-long training workshop in June of 1996, based on the TEACCH model. She teaches the students four periods per day, five days per week. She believes that due to the intensive behavioral treatment the students receive in her classroom, they are making progress academically and socially this year.

I was able to observe the class on several occasions during my research. My first impression was that Ms. Wexler had an enormous amount of patience. She constantly directed and redirected the students to keep them on task. She ignored superfluous comments and kept the students focused on the lesson. This methodology is a component of the TEACCH program. TEACCH stresses redirection and positive reinforcement for behavior management. They believe that
autistic students do not comprehend aversive consequences (Division TEACCH 1995).

My first observation of Ms. Wexler’s class was on December 2, 1996 between 10:49 and 11:38 a.m. There were three students, a teacher and three assistants present in the classroom. The students were preparing dough to make biscuits.

At first, Fay was shrieking and crying because Greg was absent. She kept her head on the table. Ms. Wexler directed Fay’s attention to reading the recipe on a Pillsbury Biscuit container. Her reading was acceptable, but choppy.

Donny was singing and moaning. He didn’t look at me when I was introduced, but indicated to Ms. Wexler that he knew I was in the room. Danny’s part in the lesson was to read how many degrees to set the oven. He successfully completed his task.

Larry, who is visually impaired, was asking for hugs and flapping his hands continuously. Ms. Wexler had to keep redirecting Larry to answer questions about greasing the pans. She finally helped him to grease them.

My second observation was on December 17, 1996. Again, the subject was Home-Economics. The class activity was making a gingerbread house. Greg immediately asked who I was. Ms. Wexler responded, then redirected him to the
class activity.

Larry was looking at the ceiling, and flapping his hands for self-stimulation. Fay was making spontaneous utterances which Ms. Wexler said were not characteristic of her. Ms. Wexler was not able to attend to them at that time because she was instructing Donny. He was accomplishing something that he normally was not able to do.

Ms. Wexler told me that it was usually difficult for him to perform bilateral tasks. He was using two hands at once to spread icing. This was a very positive accomplishment according to Ms. Wexler. At the same time, however, he was saying nonsensical phrases about Barney and trying to get out of his seat. Ms. Wexler was encouraging him with verbal praise, and redirecting him to focus on the task. Redirection and verbal praise are stressed in the TEACCH method (Division TEACCH 1995).

Teaching functional skills is another essential component of the TEACCH method (Ibid 1995). This class was characterized by a lot of physical hands-on modeling by the teacher. Each student had a task to perform, and helped put icing on the roof of the gingerbread house. The teacher modeled the behavior and the students imitated it.

During this period, students from another classroom entered the class to use
the restroom. The autistic students didn’t seem to notice them. They were focused on the task at-hand.

There is no “cause and effect” behavioral system in Ms. Wexler’s classroom because only Fay understands the concept of cause and effect. The behavior system, consistent with the TEACCH method, stresses developing pro-active routines and developing effective communication systems. The strategies for managing behaviors are emphasized in structured teaching approaches using reinforcers (Mesibov et al. 1994). For this reason, Ms. Wexler’s lessons are structured to teach vocational and independent living skills.

On January 6, 1997, I observed three of the autistic students taking a walk past my classroom with the teacher aide. They were changing classes to go to their elective. Fay was walking away, biting furiously at the palm of her hand. Donny was trying to get into another classroom, and Larry was twirling around on the sidewalk. It appeared that the students were confused and upset, and the aide had no control of them.

Later that day I had an opportunity to interview her. I asked the aide if she had attended any TEACCH workshops. She laughed and said that she had not, and all she had was a high school diploma. She implied that experience is what qualified her to teach the autistic students. During my observations of the
classroom, I determined that the aides offered little assistance to the students or the teacher. Her lack of training was evident in her inability to control them on a routine walk.

I made an unexpected and revealing observation on February 14, 1997 at the Valentine’s Day dance. Fay arrived with her mother. She seemed to be isolated from the other students as she danced with her mother all night. I also observed that her clothing was noticeably out-of-style. Her dress was too long and old-fashioned. Her clothing seemed to put emphasis on the fact that she was “different” from the others.

None of the other students at the dance paid any attention to her. She whirled and danced and seemed to be in her own world. In contrast, in another corner of the gym a Downs Syndrome lad danced by himself. He soon was surrounded by scores of encouraging peers. It was obvious that they admired him.

An important component of any behavioral program is consistency. I was curious to know what the future of the autistic program in Palm Beach County would be. To gather a perspective on the Palm Beach County School District program planning for autistic students, I interviewed Ms. Pam Tepsic, Program Planner for ESE services on March, 21, 1997. She gave me the following information:
"The autistic program is based on the TEACCH program of Eric Schopler. It is an excellent program. The center school for autistic students is at W. Elementary School, which is a feeder school for "A." Middle School. We are expanding the program. Eventually your school will be getting forty more autistic students. People used to move to (your town) because of the gifted program at "A." Middle School. Now, they are moving here from all over the country because of the autistic program."

In light of this information, I interviewed Miss Vickie, the ESE coordinator at "A." Middle School. I asked her what the principal’s plans were for this influx of autistic students. Here was her response:

"Due to the lack of space, we are going to have to place portables in the bus loop. We will be hiring new teachers to teach the classes. Another middle school in the area had been the autistic center, but all of the teachers resigned. This also poses a problem with electives. There were too many autistic students placed in Ms. B’s class and the experiment did not work. We are looking into vocational electives for all of the ESE students for next year."

I sent out the parent interview questionnaires early in January of 1997 (see APPENDIX B). All of the parents of autistic students responded. I was also able to follow up the questionnaire with telephone interviews. I asked the questions to determine whether intensive behavioral programs resulted in significant gains in academic achievement and social behavior for autistic students. I also wanted to know whether the inclusion of autistic students in special classes improved their social behavior. Here were the responses from the parents of the autistic children:
I learned that Fay is an only child, and that since she is higher functioning, her parents were in denial for years about her handicap. Fay’s parents stated that they treated her with apprehension when she was a young child. They did not know how to respond to her bizarre behavior. Like all the other parents, Fay’s parents indicated that they knew their child was autistic only after professionals tested the child and made the diagnosis.

Donny is the oldest of three children. He has a brother who is “acting out” due to lack of attention. Donny’s parents said they were disappointed when they learned he was autistic, and they felt guilty about it. They also felt that they “babied him” too much, and that he would probably be more self-sufficient if they had let him do more for himself.

Larry is the youngest of two brothers. His mother reported that the other siblings seem “resentful” of Larry. His parents felt disappointed and guilty about his autism. They sought help from a therapist when he was very young and thought they treated him properly.

Greg is the middle of three boys. His parents related that the older son teases Greg frequently. Greg’s mother said she “Thought she was too frightened to have done an adequate job of parenting.” She attributed Greg’s progress to the school program.
There were some similarities in the answers of the parents of the autistic children. All of the parents indicated that there was some degree of conflict within the families due to the amount of time and attention spent on the autistic child. All of the children were referred for testing at the preschool level except Larry. He was referred earlier since he was born with multiple handicaps. There were no other family members who are autistic.

Typical of the behavior of autistic children, all of the subjects rejected interaction with others and played by him or herself exclusively. Donny attended a preschool at the age of two and a half years. Greg attended a preschool in another state prior to 1990. Larry attended preschool in 1989 at age four. Fay did not attend preschool, but was kept at home with her mother.

All of the parents related that their child becomes easily frustrated when he/she does not get his/her way. All parents felt that their child was “doing as well as could be expected” in school. They all indicated that they were very pleased with placement in Ms. Wexler’s class. They also felt that this was the best program their child has participated in to date.

Donny’s mom is actively involved in school, frequently attending field trips. She also belongs to autistic parents advocacy groups. She feels she wants to do as much as she can for her son. Greg’s mom is a single parent, and does not have
much time to be involved. Larry's mother and father are actively involved. They attended the play, and often chaperone field trips. Fay's parents are not involved except for attending yearly IEP meetings.

Concerning parental involvement in school activities, Donny's mom stated that she feels, "He is much calmer when she attends functions." Larry's parents feel that, "He notices that they are there." Greg's and Fay's parents stated that, "We don’t think our child notices."

All of the parents were very satisfied with Ms. Wexler's classroom. Donny's mother believes that "he has learned more in this classroom than in his entire years in elementary school." All of the parents realized that the academic work was not on the grade level of a "normal" child, but they all felt that there was more learning going on here than in any of their past experiences.

All parents answered that their child rarely comes to them for help with school work. There is no homework assigned, and all work is completed in class. Occasionally notes and papers will come home. The parents are aware to look in the back packs every night for messages.

None of the parents indicated that they were disappointed in the performance level of their child. Donny's mother answered that "The children are graded on an individual basis, so there is no comparison to each other or to 'normal' students."
Donny has been tested, and has improved from a 3.2 grade level, last year, to a 4.1 grade level. His report cards this year have shown steady improvement.

Greg’s mother said that “He has been doing well this year. When he started school at “A.” Middle School, he was tested at a 1.1 grade level. After one year in the program, he is able to do some of the work of a level 2 student such as telling time and identifying money.”

Larry’s mother said that “When Larry’s grade drops, it is because he is having a crisis.” Larry is also performing on a first grade level, but is accomplishing more this year, according to Ms. Wexler.

Fay’s mother said that “Fay is making academic progress this year. Her report cards have improved. She is also becoming more interested in her peers.”

All of the parents felt that they showed they were pleased with their child’s performance. Donny’s mom said that “She has been satisfied with the schools her son has attended, but that if she felt dissatisfied, she would look into an alternative placement.” Greg’s mother said, “One of the reasons that the family moved from another state was to find a better school for Greg.” She is satisfied with his current school. Larry’s mother said that “She would help him more at home.” Fay’s mother said that “She would look for another school if she felt that this one was not appropriate.”
Donny’s mother says she can always tell if Donny has had a bad day in school. “He engages in more self-stimulation than usual, and he is more agitated in general.” Greg’s mother said, “I can always tell if he is upset because Greg will hide under an end table and rock himself, and hold his head if he has been upset by something at school.” Larry’s mother said, “When Larry comes home upset he asks for hugs and engages in a lot of hand-flapping.” Fay’s mother said that if Fay has had a particularly bad day at school, she (the mother) is aware of it because Fay will try to bite herself.

Reflecting on her feelings of guilt about his handicap, Donny’s mother responded, “I used to feel guilty about Donny. Perhaps I had done something wrong when I was pregnant. But I don’t think so anymore. I just do whatever I can for my son, and learn all I can about new treatments for him.”

Greg’s mother did not think his handicap was a reflection of herself as a mother. Larry’s mother responded that she did not think this was a reflection of herself as a parent. Fay’s mother did not have an opinion. She said she did not know.

Donny’s mother said that she has been actively participating in school functions. She has not missed one event, so Donny has not been disappointed. Larry’s mother said that “I missed one, and felt that Larry was upset by my
absence.” She tried to discuss it with him, but does not know if he understood.” Greg’s mother said that “She had to miss one important event, but that she explained it to him and he seemed to understand.” Fay’s mother said that “She frequently has to miss school functions due to her job, but that she doesn’t think Fay notices.”

Donny’s mother feels that he would be best served in an adult group home eventually. Greg’s mother feels that he might continue to live at home and be able to perform a menial job. Larry’s mother feels that due to his physical handicaps he might have to go to a hospital setting. Fay’s mother does not know right now what to expect from her daughter.

The parents had mixed feelings about the inclusion experiment. Donny’s mother believes that the inclusion classroom is beneficial. She responded that “It is good for Donny to have new experiences. I am not sure that he is learning anything, but that interacting with new people is beneficial.”

Greg’s mother does not think Greg is gaining anything from this classroom based on the teacher’s report on his behavior in the class. Larry’s mother thinks that this class is upsetting for him. Fay’s mother, who attended the play, is very proud of her recital of the introduction. She thinks this has been a good experience for her.
All of the parents are eager to learn which new electives will be added to the schedule next year. They are hoping that the new electives will be more appropriate for autistic students.

I also developed a shorter questionnaire (Appendix E and Figure 3) and sent it home to the parents of the gifted students. My purpose was to find out if they thought the inclusion class was beneficial to the gifted students.

Fifteen parents said that their child exhibited signs of “giftedness” at a preschool age. One parent said that her daughter would hear a family member playing the piano, and could reproduce the tune at the age of two and a half. Another mother said that her son could read simple books at three years old.

Most of the parents that responded said that they did not feel that they treated their child in any special way when they learned that their child was gifted. Some said, however, that they bought more advanced toys and tried to enrich their child’s learning experiences.

Three of the parents said that their child preferred to play by himself when he was younger. One said, “He liked to ‘discover’ things for himself.” The rest of the fifteen respondents said that their child liked to play with others and was social.

All of the fifteen children whose parents responded to the questionnaire had been in a preschool as early as three years of age. All parents except one felt that
their child was performing very well in school. However, in response to question #
6, one parent said that she would complain to the teacher, and possibly have the
child removed from the classroom if she felt that the child was not learning.
Another said he might have the child transferred to another school. Other parents
said that they thought they could work out the problem with the teachers and
administrators.

When questioned specifically about the gifted/inclusion class, most of the
parents that responded said their child was not learning much in that class. One
parent said that it was a good experience for her son to be with handicapped
children. Another parent applauded the creativity of students writing and
performing their own play.

Most parents said that in spite of the general lack of direction, the inclusion
class has been a positive experience. Only one parent said that she would not like
to see the experiment repeated next year. Five parents said that their student
complained about the noise level in the class. Another parent said that his child and
a few of her peers complained that they weren’t learning anything in the class.

Twelve out of the fifteen respondents answered that they felt this was a
positive experience for their child because they were with handicapped children.
One mother said that she felt it was not good for her son to always be with gifted
children. Another mother stated that the experience of writing and performing a play was beneficial. She felt that there was a lot of creativity in this class.

The following Table 2 is a comparison of the responses of the autistic parents and gifted parents. I was looking for similarities or differences in the attitudes of the students and parents towards the autistic class. I was also looking for similarities in the attitudes of parents of children with two different exceptionalities.
### TABLE 2

A comparison of the responses of the autistic parents and gifted parents:

<table>
<thead>
<tr>
<th>Autistic</th>
<th>Gifted</th>
</tr>
</thead>
<tbody>
<tr>
<td>How old was your child when he/she displayed characteristics of an autistic child?</td>
<td>How old was your child when he/she displayed characteristics of a gifted child?</td>
</tr>
<tr>
<td>All responded that it was at a preschool level. A male with multiple handicaps was referred earlier.</td>
<td>Fifteen parents said that it was at a preschool level.</td>
</tr>
<tr>
<td>How did you treat him/her when you found out he/she was autistic?</td>
<td>How did you treat him/her when you found out he/she was gifted?</td>
</tr>
<tr>
<td>Donny’s parents thought they babied him.</td>
<td>Most felt they did not treat their child in a special way. Some said they purchased educational toys.</td>
</tr>
<tr>
<td>Larry’s parents sought professional help.</td>
<td></td>
</tr>
<tr>
<td>Greg’s mother said she was too frightened.</td>
<td></td>
</tr>
<tr>
<td>Fay’s mother said they treated her with apprehension.</td>
<td></td>
</tr>
</tbody>
</table>
When your child was young, did he engage in play with others?

As typical of autistic children, all rejected interaction with others. Three of the fifteen parents said their child preferred to "discover" things for themselves. Twelve others said their child was social and outgoing.

How well do you feel your child is performing in school?

"As well as can be expected." All except one felt their child was performing well.

If you felt your child was not learning anything from the classroom, what would you do?

Donny's mother is satisfied with the classroom, but would look for another placement otherwise. One parent would complain to the teacher. Another parent might transfer her child to another classroom.
Greg's mother said that moving to another state was because of the school system. Other parents thought they could work out the problem.

Larry's mother said she would help him more at home. Fay's mother would look for another school.

If your child behaves poorly in school, does his mood change? Has your student complained about the gifted/inclusion class?

Donny engages in more self-stimulation if he is upset. Five students complained about the noise level. Greg hides under a table and rocks. Three other students said they aren't learning anything in this class. Larry asks for extra hugs.

Do you feel that your child is benefitting from the inclusion class? Do you feel that your child is benefitting from the inclusion class?

Donny's mother feels it is good for him to have new experiences, but that he is not learning anything. Twelve parents felt this was a positive experience, but their child was not really learning anything academic.
Figure 3 corresponds to the questionnaire in the following way:

Question 1. Are you actively involved in your child’s school?
   Autistic- Yes 75%  Gifted- 100%

Question 2. When your child was younger, did he prefer to play by himself, with you, other siblings, or friends?
   Autistic- Socialization 0%  Gifted- Socialization 80%

Question 3. At what age did your child begin school?
   Autistic- Preschool 75%  Gifted- Preschool 100%

Question 4. How well do you feel your child is presently performing in school?
   Autistic-Well as can be expected 100%  Gifted- Well 96%

Question 5. Do you feel that the inclusion class has been beneficial?
   Autistic- No 50%  Gifted- No 80%
The conclusions I have drawn from Table 2 and Figure 3 (Comparison of Parental Responses) are that there are several similarities in the attitudes of the parents of the autistic and gifted students. The majority of the parents believe that they are involved in their child’s educational progress. Their willingness to participate in this study is evidence of their involvement. Most said that their child was not learning anything in the inclusion classroom, but that the experience was beneficial. For further conclusions and observations see Chapter 5.
Chapter 5

Summary and Conclusions

Most researchers agree that random selection is essential to the validity of a study (Baer, 1993). My study was limited in the fact that there were only four students in the autistic program. I believe that the comparison of the results of the past observations, questionnaires, report cards, etc. to present data will determine whether behavioral treatment was effective or not.

Another limitation of the study is the lack of training of most of the staff involved with the students. Only the primary teacher for the autistic students had attended training workshops in the TEACCH method. Neither the gifted teacher nor the classroom aides received any training at all.

The significance of the study at “A.” Middle School was that it showed that behavioral treatment of children with autism has a positive impact on their prognosis. It is an encouraging sign that treatment gains were generalized and maintained for an extended period of time. It may inspire other administrators to provide alternative classroom settings for these children. It may also encourage researchers to continue to investigate the effects of long-term behavioral treatment on autistic children.
There are many facets to the results of my study on behavioral treatment of autistic students. Most were expected and anticipated. My findings were based on direct observations and quotes given by the teachers and parents of the autistic students. It would be very difficult to replicate this study due to the unique nature of the students and the circumstances.

I will address my findings for each issue individually. Prior studies have determined that extensive behavioral treatment programs produce educational and social gains (Lovaas, 1987, McEachin, 1993). I believe that this study offered evidence that intensive behavioral treatment produces educational and social gains in autistic students.

To measure educational gains, I noted the student’s beginning academic levels in their file folders. I then examined the academic goals on each student’s IEP. I interviewed their classroom teacher, Ms. Wexler, to determine what progress the student had made this academic year. Finally, I noted their past and present report cards.

All of the autistic students showed steady academic progress on their report cards this school year. Recent testing showed that each student has gained at least one grade level since beginning the TEACCH program. Due to report card results, recent testing, and the mastery of IEP goals, I conclude that intensive behavioral
treatment programs produce educational and social gains in autistic students.

Autistic students have academic as well as behavioral goals on their IEP. Donny’s math ability in 1995 was determined to be on a second grade level. An academic goal on his IEP for math was, “Donny will add and subtract one-digit numbers with 90% accuracy.” According to his teacher, that goal has been mastered. Donny’s report card this year has shown “A’s” and “B’s “ for math. He has been working from a third grade workbook.

Another domain Donny was working on was “Task-Related.” Donny had problems staying on-task for more than five minutes at a time. Donny’s present IEP read, “Donny will remain on-task for 10 minute intervals during seatwork.” According to Ms. Wexler, he has mastered this goal 80% of the time based on classroom observations.

While it was noted on the IEP that Donny’s strengths were in word recognition and decoding, it was apparent that he had few comprehension skills. A reading comprehension domain page was created for his IEP. One goal was “Donny will demonstrate comprehension of a reading paragraph by arranging correctly 4 out of 5 related story pictures.”

Since Donny had high Achenbach scores in social withdrawal and self-injurious behavior, his IEP goals for “Personal Adjustment” and
"Communication" stated, "Donny will initiate appropriate interaction with a peer one time per class period during free-time." To minimize his self-injurious behavior, Donny was encouraged to communicate his feelings of anxiety by signaling." Ms. Wexler indicated that although Donny had not "mastered" these goals, he was making some social progress.

Greg's IEP goals reflect communication, academic and social problems. Academically, when he entered "A." Middle School, his reading and math abilities were on a 1.1 grade level. He was unable to understand the concept of time or make change. According to Ms. Wexler, he has improved a little this year. He is able to manipulate a plastic clock to show the time, and he is beginning to make change in small amounts with play money.

In the communication domain, Greg has demonstrated the ability to solve simple problem skills, such as how to open a box of soap powder. He has also shown the ability to complete sequencing tasks during home-economics. He is currently working on being able to answer who, what, where, when and why questions in grade appropriate reading selections to identify the main idea of a story.

Another area of concern for Greg is interpersonal relations. Some of his goals are to demonstrate the knowledge of physical boundaries, to refrain from
agonizing other students, and to seek out a willing peer for leisure activity. He must also be able to identify consequences of his behavior, and safety hazards.

Greg also had IEP goals in the area of “interpersonal relations.” He had to demonstrate knowledge of physical boundaries, refrain from antagonizing other students, and seek out a willing peer for leisure activity. Greg has demonstrated that he has made social gains by making improvement in these areas. According to Ms. Wexler and the classroom aide, Greg is aware of personal space, and antagonizes his peers less than he did at the beginning of the school year. He occasionally seeks out a peer to play a favorite game during recess.

The third student in the group, Larry, has made progress, according to his teachers. They say he “is cooperative and willing to please.” His academic IEP goals include word identification and mathematics. He is able to identify words if they are in large print. He is also able to count by 5, 10, and 25. He was unable to complete these tasks prior to attending this program.

A self-management objective on Larry’s IEP is to remain with the group while participating in community-based trips. His teachers believe he has been successful with this goal because he enjoys being with the group. He seems happy to come to school, according to his parents.

The female member of the class, Fay, is making social improvement. This
year she attended the Valentine’s Dance and participated in the activities. Although she and the other autistic students still exhibit the classic symptoms of autism, some of their behaviors are becoming less frequent.

Due to limited number of responses from parents of students in the inclusion class, and the small number of autistic students, the study was restricted to a small group. The primary findings of this study indicated that intensive behavioral treatment produces educational and social gains in autistic students. In retrospect, I feel that the study might have had more validity if there had been a larger number of students.

I found the parents of the autistic students to be very cooperative, and I believe that they responded to the questions as honestly and thoughtfully as they could. I determined that the parents were caring, and wanted to do everything possible to ensure the best possible education for their student. Moreover, one of the mothers was a parent advocate for autistic students and established an informal barometer for the interview. Another mother was obviously overwhelmed by single-parenting and the responsibilities of being a parent of an autistic child.

The parents of students in the inclusion class were as helpful as they could be, providing insight into their feelings on the inclusion class. From their written responses on the questionnaire, I determined that they were involved in their child’s
progress at school. Most of them, however, believed that the class was not beneficial to their students. Based on teacher reports, parent interviews, and observations, I believe that this particular inclusion classroom has only produced minimal social gains for the autistic students.

I found that the staff interviews I conducted at the school were the most informative. Face-to-face interviews offer the researcher the opportunity to analyze any informative body language that might be exhibited during the questioning. Also, the in-person interview tends to be more relaxed. This is probably due to the stigma of “writing down negative comments.”

The teacher of the autistic students was very helpful, cooperative, and I spent several class periods observing in her room. I found her to have a deep concern for the students, and a great deal of patience. She was trained in a week-long seminar in June of 1996. This was at the end of the first year with the students. I believe that her training enabled her to cope with the difficult task of teaching autistic students.

In contrast, the gifted/inclusion teacher did not seem have control of her class. She said that she “dreaded” that period every day. She stated that, “The class is too large and I have no assistance.” It must be noted that one teacher assistant accompanied the autistic students to class every day, but the teacher did
not give her instructions or direction. It must also be noted that she had no special training to teach autistic or inclusion classes. I believe that the failure of this inclusion experiment is largely due to the teacher’s attitude and lack of training.

Nevertheless, I concur with researchers (Division TEACCH, 1995) that believe that the inclusive experience is beneficial to autistic students. One example of success was the participation in the drama in December. All of the autistic students were given a function and were able to perform it. This would indicate that there is a positive correlation between early behavioral treatment intervention and outcome.

Further research might entail replication of this study next year to determine if there have been further educational and social gains for the autistic students. The most important recommendation I would make is to increase personnel training. I believe that the lack of the staff training caused the apparent failure of the inclusion classroom experiment. I believe the experiment should be repeated after further training sessions, and an increase in the staff to student ratio.

Another suggestion might be for new research in this area to add the variable of earlier intervention. During my research, I learned that forty autistic students from neighboring elementary schools will eventually be attending “A.” Middle School within the next few years. New and undiscovered interventions could be
tested and implemented. One final suggestion would be that future research
determine the extent to which early intervention alters neurological structures in
young children with autism.
Appendix A

Letter of Introduction

Dear:

I am writing to ask you to participate in my masters research project in Varying Exceptionalities at Lynn University. The study that I have undertaken concerns itself with the autistic program at (Your Child’s) Middle School, and the implications of intensive behavioral treatment programs on long-term educational gains for autistic students.

I would like to interview you concerning your ideas and/or feelings on this subject. That information that you provide will be kept in strict confidence and no student or teacher will be identified by name. I would like to tape record the interview, which will take approximately 45 minutes to complete.

I will be contacting you shortly so that we may set up an appointment that is most convenient for you.

I appreciate your time and effort on my behalf.

Sincerely yours,

Barbara McDermott
Appendix B

Consent Form for Interview

I agree to be interviewed by Barbara McDermott, graduate student at Lynn University, Boca Raton, Florida, as part of her masters research project Implications of Intensive Behavioral Treatment Programs on Long Term Educational Gains for Autistic Children.

I am aware that confidentiality will be maintained and that no participant will be identified by name in any write-up or publication.

I give Barbara McDermott the right to use direct quotes from my interview in her write-up or publication of this study.

I understand that any interpretive findings will be made available to me for any comments that I may have as part of a member check at the end of the study.

I understand that I am receiving no reimbursement for participating in this study.

I give my permission for my interview to be tape recorded.

________________________________________  ______________________________________
Signature                                      Date
Appendix C

Parental Consent Form for Children's Participation

Dear Parents:

I am writing this letter to introduce myself to you. My name is Barbara McDermott. I am a teacher at (Your Child's) Middle School, and I am presently doing research and writing my masters thesis on the implications of intensive behavioral treatment programs on long-term educational gains for autistic students.

In order to complete my study, I must do several hours of observation in the autistic classroom. I will also be speaking to the principal, the teachers, some of the children, and some of the parents.

The school, class, children, and parent names will not be used in the study. Everything will be kept strictly confidential.

Thank you for allowing me to observe your child and possibly speak to him/her. It is my hope that many good things will come from this study.

Sincerely yours,

Barbara McDermott

Please return this form to your child's teacher.

[ ] Yes, my child can participate in the study.
[ ] No. I do not want my child in the study.

______________________________  ________________________________
Child's Name                  Parent/Guardian's Name
Appendix D

Parent Interview Questionnaire

Autistic

1. How many children are in your family?
   a. What place in chronological order is your child?
   b. Do you have other members of the family who are autistic?

2. If there are any children in the family who are not autistic, has there been any conflict because of it?
   a. Have you found the autistic child more demanding of your time?
   b. In what way, describe?

3. How old was your child when you noticed that he displayed characteristics of an autistic child?
   a. Please describe these characteristics.
   b. How did you feel about this at the time?
   c. How do you feel about this now?

4. How did you treat him/her when you found out that he was autistic?
   a. How did you know he was autistic?

5. When your child was young, did he engage in play by himself, with you, other siblings or friends?

6. At what age did your child begin school?
   a. How many schools did you research before making a decision for placement?
b. Were you satisfied with your decision?

7. Does your child become frustrated easily when he does not get his way?
   a. How does this make you feel?
   b. How do you handle this?

8. How well do you feel your child is presently performing in school?

10. Are you actively involved in your child's school?
    a. In what capacity and how often?
    b. Why are you involved?

11. How do you think your child feels about your involvement in school?

12. What is your opinion about the classwork?
    a. Do you feel your child is benefitting from the academic work?

13. Does your child ever come to you for help in his school work?

14. If your child's grades fall below his usual performance level, how do you feel about it?
    a. How do you react?

15. Do you show your child that you are pleased or displeased with his grades?

16. If you felt that your child was not learning anything from the classroom experience, what would you do?

17. If your child behaves poorly in class, does his mood change?
    a. Are you able to tell that there might be something troubling him?
18. We all have high expectations for our children. Do you think that if your child fails it is a reflection on you as a parent?

19. Have you ever promised to come to a school function and could not come for an important reason?
   a. How do you think your child felt?
   b. Were you able to discuss the incident?

20. What are your long term expectations for this child?
   a. Do you think this is realistic?
Appendix E

Questionnaire for the Parents of the Gifted Students

1. How old was your child when you noticed that he/she displayed characteristics of a gifted child?

2. How did you treat him or her when you found out that he or she was gifted?

3. When your child was young, did he play by himself, with you, other siblings or friends?

4. At what age did your child begin school?

5. How well do you feel your child is performing in school?

6. If you felt that your child was not learning anything from the classroom experience, what would you do?

7. Do you feel that your child is learning anything from the gifted/inclusion class?

8. In general, do you think the inclusion class has been a positive experience?

9. Has your son or daughter complained about the inclusion class?

10. In general, do you feel that your child is benefitting from the inclusion class?
Appendix F

Questionnaire For The Teachers On The Effects of Intensive Behavioral Programs (TEACCH) on Educational Gains for Autistic Students

1. What is your position at O. Middle School?

2. Approximately how long have you known the autistic students?

3. What is your educational background?

4. Have you ever worked with autistic students before?

5. Have you had any special training to work with autistic students?

6. What is your opinion of the TEACCH program?

7. In your opinion, have you seen any improvement socially or educationally in the students since the beginning of the school year?

8. Do you think that the autistic students are learning anything in the inclusion classroom?

9. Do you think that the gifted students are learning anything in the inclusion classroom?

10. Have you heard any complaints from the students about the inclusion class?
References


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