Conducting Functional Behavior Assessments and Subsequent Behavior Intervention Plans for Emotionally and Behaviorally Disordered Students in Kindergarten Through Fifth Grade

by
Ellen Y. Ahiyon

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Approval Page

This applied dissertation was submitted by Ellen Y. Ahiyon under the direction of the persons listed below. It was submitted to the Fischler Graduate School of Education and Human Services and approved in partial fulfillment of the requirements for the degree of Doctor of Education at Nova Southeastern University.

__________________________________________  ____________________________
William Vales, EdD                              Date
Committee Chair

__________________________________________  ____________________________
Barbara Packer, EdD                              Date
Director of Applied Research
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Abstract


This applied dissertation was designed to provide school-based professionals training and access to effective research-based Functional Behavior Assessment (FBA) tools and methodologies in order to achieve and create a quality TEAM-based FBA process for assessing Emotionally and Behaviorally Disordered (EBD) children's behaviors. Conducting quality FBAs lend to the development of cogent behavioral intervention solutions contained in skillful Behavior Intervention Plans (BIPs). Extensive research revealed that there was a lack of time dedicated to effective FBA/BIP training for school personnel at this researcher's school facility. Furthermore, BIPs were not consistently implemented, monitored and refined when needed. Subsequently, EBD students' exhibition of physically aggressive and disruptive behaviors in school was needlessly elevated.

This researcher developed and implemented training modules to in-service a 12-member school-based team on carefully selected FBA/BIP strategies and best practices. FBA components such as background data gathering techniques, interview strategies, various observation protocols, scatter-plot graphs and behavior intervention approaches were discussed in detail. One FBA team interview strategy developed by Knoster (2000) entitled the Initial Lines of Inquiry (ILI) was implemented by the FBA/BIP training team and was monumental in enabling the school-based team to identify antecedents and setting events that precipitated selected EBD students' problem behaviors. The ILI team interview format was instrumental in subsequent development of quality BIPs. Each student's parent(s) participated in each ILI team interview meeting. Ten EBD students were the focus of this applied dissertation study.

Analysis of the data revealed that 5 of the 10 targeted EBD students demonstrated a marked decrease in incidents of aggressive and disruptive behaviors during the FBA/BIP implementation phase. It is important to note, however, that all 10 targeted EBD students' displays of disruptive and/or aggressive behavioral outbursts decreased during the implementation phase of this researcher's applied dissertation study. The most successful FBA component conducted during this study was the ILI FBA team interview sessions as this format strongly encouraged a comprehensive team approach to identifying functions of students' behaviors that included parent participation as a key element in the development of each student's FBA and subsequent BIP.
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Chapter 1: Introduction

Description of Community

The applied dissertation was conducted in the southeastern region of the United States in a suburban elementary school located within the nucleus of a small city with a total population of 128,000. The mosaic makeup of this city consisted of many diverse cultures with the predominant culture being Caucasian. The surrounding community consisted of a mixture of middle class, low middle class and low socioeconomic class families. At the time of this study, 31% of the families lived in single-family houses, 24% lived in townhouses, duplex or 4-plex housing, and the remaining 45% resided in rental apartments or subsidized housing.

There was a high mobility rate within this community. Approximately 33% of the students attending this school site came from intact, two-parent families. The remaining 67% were made up of blended or single-parent households. This elementary site was a neighborhood school in that most students lived in close proximity to the school. This enabled parents to participate more fully in their children’s academic and social development within the school environment. The majority of students walked to and from school daily. A small percentage of students were transported to and from school by car. A total of 19 exceptional education students were transported by school bus each day due to the fact that they attended a specialized program at this site.

There was an abundance of community support for this school. “Partners in Education” at this school site included Publix, Papa Johns, International House of Pancakes, Red Lobster and Burger King. In addition, this educational site had an active Parent Teacher Association, School Advisory Council, School Advisory Forum, and was a member of the Coalition of Essential Schools. This school also participated locally and
nationally in whole student reform efforts to improve student achievement.

*Researcher’s Work Setting*

The mission/vision statement of this school organization states, “To provide a positive learning environment that recognizes the importance of individual needs as well as encouraging community involvement. Within this environment, students acquire skills necessary to continually grow as creative problem solvers and life-long learners.”

This educational setting possessed many characteristics that made this 28-year-old institution unique. First, and foremost, this site provided students and families with a nurturing and caring learning environment. Students were afforded many opportunities to learn and expand their knowledge through development of research skills and state of the art technology experiences. Teachers were given opportunities to expand their teaching knowledge and expertise through county in-service training workshops and incentive rewards for pursuing advanced degrees.

This elementary school had a diverse population that offered every student an equal opportunity to access a strong, quality education. The total student population included 553 females and 602 males. The ethnographic breakdown of this diverse population was as follows: 21.4% African-American, 3.5% Asian, 21.4% Hispanic, 25% multiracial, 6% Native American, and 49.7% Caucasian. Of the 1,155 total student population, 658 students were eligible for free or reduced-price lunch last school year.

The school personnel were comprised of two administrators, 48 instructional and 26 non-instructional staff members. Of the 48 instructional staff members, 31 held a Bachelor’s Degree and 17 had obtained a Master’s Degree. The gender breakdown of the teaching staff was 5 male and 43 female instructional personnel. The professional educational staff included two preschool teachers, five Kindergarten teachers, two
1st-grade teachers, six multi-age 1st- and 2nd-grade teachers, three 2nd-grade teachers, six 3rd-grade teachers, five 4th-grade teachers, five 5th-grade teachers, one gifted teacher, one art teacher, one music teacher, one physical education teacher, one media specialist, and five exceptional education teachers. The professional instructional support staff included a guidance counselor, family mental health counselor, reading support specialist and an exceptional student education specialist. A school psychologist and school social worker were itinerant-based professionals who offered once a week support to all students and school personnel.

A specialized Emotionally and Behaviorally Disordered (EBD) Cluster program was housed at this facility. Twenty-seven EBD students, kindergarten through fifth grade, participated in this specialized program. Behaviorally challenged students identified as EBD from surrounding elementary schools were clustered together at this school to attend this unique program. These students were provided bus transportation to this program because they exhibited severe behaviors that prevented them from meeting with academic and behavioral success in the least restrictive environment at their neighborhood school. EBD Cluster programs are set up at only a handful of elementary schools throughout this researcher’s school district as students with EBD demonstrate unique behavioral and/or social-emotional needs. At the time of this study, the cluster was comprised of three EBD classrooms. Each classroom had a certified EBD teacher and trained paraprofessional. Class size ranged from approximately 8 to 12 students. An intensive behavior management system was infused throughout the school day in each of the EBD classrooms. Ten of the EBD students were the target student population of this researcher’s applied dissertation study.
Researcher’s Role and Responsibilities

As an Exceptional Student Education (ESE) Specialist, this researcher’s responsibilities included coordination of all Special Education student programs. As stated previously, a specialized cluster program was housed at this location of kindergarten or EBD students. EBD students in kindergarten through fifth grade from nine surrounding elementary schools located within this ESE Specialist’s district school zone fed into this EBD cluster program. Twenty-eight EBD students, kindergarten through fifth grade, attended this specialized program. There were three separate EBD classrooms. When necessary, this ESE Specialist implemented verbal de-escalation and crisis management strategies with this special population. This researcher coordinated teams to conduct Functional Behavioral Assessments (FBAs) and develop subsequent Behavior Intervention Plans (BIPs) with the 10 targeted EBD students who continued to demonstrate high magnitude behaviors despite the specialized services and strategies delivered in the EBD cluster program.

Research involving this target population of EBD students was the focus of this applied dissertation study. This researcher's Master’s Degree in Emotionally Handicapped coupled with many years of working with this unique group of youngsters produced some interesting and helpful results.

During the implementation phase of this applied dissertation project, this researcher assumed several critical leadership roles in order to build an effective FBA/BIP school-based team. As outlined in the Midpoint Progress Report, training workshops were conducted to educate school personnel on effective EBD research-based FBA/BIP strategies. The training phase was conducted for 13 weeks. In conjunction with the training sessions, weekly crisis team meetings were facilitated to discuss and reflect
on specially selected journal articles. These articles covered FBA components and strategies and their relationship to the development of positive Behavior Intervention Plans. Upon completion of the training exercises, FBA teams were formed to conduct FBA/BIPs on the 10 targeted EBD students. Part of this researcher’s role was to facilitate the FBA meetings and to designate FBA data collection roles and responsibilities among team members. The data collection phase of the study took six weeks to complete. The FBA committee then reconvened to discuss the data results and findings in order to assist in the development of individualized BIPs for each of the 10 targeted EBD students. This researcher conducted observations of team members' data collection methods and procedures and served as a consultant. As the crisis team facilitator, team members were encouraged to share ongoing data collection results on the success of each EBD student’s BIP. A critical function of this researcher was to analyze and monitor data collection results assessing the effectiveness of each student’s BIP. Parents were encouraged to participate in every component of the implementation phase of this project. Upon completion of the above, a database was created that compiled final data results for each of the 10 targeted EBD students. Final results were presented in a statistical analysis report generated from this database.
Chapter 2: Study of the Problem

*Problem Statement*

The problem that was solved in this applied dissertation was as follows:

Elementary-age EBD students, kindergarten through fifth grade, display physically aggressive and disruptive behaviors in the public school setting.

*Problem Description*

Ten EBD students were not meeting with behavioral, social-emotional and/or academic success despite participation in the highly structured specialized EBD classroom setting. These 10 EBD students' behaviors consisted of daily exhibitions of severely disruptive and/or aggressive, high magnitude behaviors that required one-to-one assistance as well as implementation of crisis intervention techniques such as the use of physical restraints. Three staff members were injured in a 2-week period due to 3 of the 10 students' physically aggressive, high magnitude behaviors. Four elementary-age peers were also physically assaulted by 2 of the 10 targeted EBD students. The behaviors displayed by each of the 10 targeted EBD students were significantly impacting their own learning and the learning and safety environment of their peers. Careful consideration of a more restrictive educational eligibility and placement was considered. However, by law (Reauthorization of IDEA, 1997), a Functional Behavior Assessment had to be completed on these youngsters first. Possible setting events, antecedents, triggers, environmental variables, curriculum and/or behavioral variables and consequence strategies needed to be evaluated as these factors may have impacted success in their current EBD classroom setting. Analysis of the FBA data conducted separately on each of the 10 EBD students was completed. Subsequently, individual BIPs were developed for these at-risk EBD youngsters. This researcher hypothesized that the reasons why this problem existed, and
the reasons other solutions failed, was a direct result of implementation of inappropriate or ineffective behavioral intervention strategies. Another factor contributing to the lack of success was the lack of time dedicated to effective FBA/BIP training for ESE personnel at this location. Furthermore, BIPs were not consistently implemented, monitored and refined as necessary.

*Problem Documentation*

Ten of 24 EBD students, attending the Emotionally Handicapped Cluster Program, demonstrated severely disruptive aggressive behaviors more than 30-50% of the time, during any given school day. Interviews conducted with the principal, school psychologist, family counselor, guidance counselor, three EBD teachers and three EBD paraprofessionals indicated reservations and dismay regarding the increase of severely aggressive behaviors exhibited by the targeted EBD students as a result of poor behavioral intervention strategies implemented. In addition, severely aggressive behaviors showed an increase in the 10 targeted EBD students. The number of Professional Crisis Management (PCM) restraints and time-outs for severe behaviors among the targeted students during the 2001-2002 school year was documented in PCM logs (see Appendix A), timeout logs (see Appendix B), individual daily behavioral point sheets (see Appendix C), and daily anecdotal records.

Professional training development on effective research-based FBA data collection strategies, implementation and ability to analyze and interpret FBA data was needed. In addition, professional development training on FBA interpretations for use in developing BIPs was paramount in development of effective individualized BIPs. School-based FBA/BIP teams were coordinated. The ILI was used by this researcher. The author (Knoster, 2000) granted permission for use of this FBA Team interview screening
tool. Teacher training on BIP intervention implementation was also conducted. BIP monitoring procedures and behavior incident logs with dates, times and student outcomes were created. A database was designed to organize and compile FBA/BIP assessment results.

Causative Analysis

There were several possible causes for the challenging behaviors that EBD students displayed. Functional Behavioral Assessments seek to reveal the causes for a given student's behaviors. Anecdotal records, daily point sheets, scatter-plot (see Appendix D), teacher reports, and A-B-C data collection methods (see Appendix E) were analyzed to determine causes for each of the 10 targeted EBD student's disruptive behaviors. Reasons identified for students' misconduct include a myriad of environmental and/or curriculum variables. In addition, lack of effective behavior interventions employed can be a contributing factor to negative behavioral outbursts. The nature of causes behind EBD students' behaviors has been the topic of endless research articles.

This researcher's literature review explored the multitude of problems faced by EBD youth. Children and youth with EBD often display aggressive and disruptive behaviors in the school environment. As Walker et al. (1995) pointed out, children with EBD demonstrate a myriad of social skills deficiencies. EBD student relationships with peers or adults may be adversely affected as is reflected by Quinn, Kavale, Mather, Rutherford, and Forness (1988):

These may involve problems in interacting appropriately with peers or significant adults in their social environment, difficulties in communicating their physical or emotional needs appropriately, inadequate knowledge of social rules or manners, inability to correctly appraise social situations, and even disruptive behavior such as violence or aggression. (p. 54)

Many experts on EBD agreed that these youngsters often exhibit either an
internalizing or externalizing behavioral profile (Coleman, 1996). According to Achenbach and Edelbrock (1978) internalizing disorders may manifest themselves in the form of (a) overworrying, (b) anxiety, and (c) complaints about not feeling well. In contrast, other EBD students demonstrate external behaviors that include, but are not limited to, (a) physical aggression, (b) explosive outbursts, and (c) impulsive acting-out behaviors (Coleman). EBD students’ behavioral deficits negatively influence their ability to meet with academic, social and behavioral success in the school setting.

The myriad of problems faced by EBD youth today and how these problems contribute to their high risk for school failure and negative post school experiences were highlighted in this researcher’s review of literature. Research pertaining to the reasons schools are failing to meet the educational, behavioral and social-emotional needs of students identified as EBD is well documented. How FBAs and BIPs can be effectively utilized to assist school professionals in making suitable educational decisions for EBD students was discussed in detail. Knoster (2000) suggested that FBAs are a valid process for revealing the function or cause of an EBD student’s chronic display of disruptive behaviors and the way those behaviors relate to his/her environment. The FBA is the foundation for developing a BIP. Sugai, Lewis-Palmer, and Hagan-Burke (2000) agreed that BIPs identify effective treatment interventions by (a) determining replacement behaviors, (b) establishing trigger events, (c) changing antecedent events, and (d) developing consequence strategies. If EBD students do not receive behavioral interventions designed to promote appropriate social skill development in the formative school years, their severe behaviors may be negatively nurtured causing them to face a wide array of educational obstacles later on.

Research on conducting quality FBAs, and subsequent BIPs, with the EBD
student population was limited. As Schiter, Shellady, Sealander, and Eigenberger (2000) pointed out, there is limited research identifying components necessary to evaluate EBD students using an FBA process. The problem is further compounded by the fact that school personnel need training on how to gather FBA data and evaluate EBD students. Collaborative efforts are needed to ensure that educators are adequately trained to develop quality Behavior Intervention Plans designed to meet the unique needs of EBD students. The Individuals with Disabilities Education Act (1997) clearly states that FBAs/BIPs must be implemented with EBD students in order to comply with the federal mandates (Hartwig and Ruesch, 2000). How we go about accomplishing this monumental task is quite a different story and one that has been explored by this researcher.

What unique characteristics do EBD students possess? No universal federal definition for EBD was revealed through the literature review process. Each individual state constructed its EBD definition by which criteria for special education eligibility and classification was determined. Many states have adopted definitions for EBD, similar to the one proposed by The Florida Department of Education, Special Programs and Procedures (SPS) Guide for Exceptional Students (2002-2003). This guide defines EBD as the following: “A condition resulting in persistent and consistent maladaptive behavior, which exists to a marked degree, which interferes with the student’s learning process” (p. 130). The SPS Guide outlined many characteristics unique to the EBD student population. Characteristics include (a) failure to make satisfactory academic achievement not linked to intellectual deficiencies, (b) inability to develop and sustain positive peer and adult relationships, (c) inappropriate displays of behavior or feelings, (d) permeating disposition of melancholy or depression, and (e) a tendency to display somatic complaints and school phobia. The severity of behaviors exhibited is taken into
consideration when identifying a student as EBD (Coleman, 1996). Another important factor included in the federal definition of EBD is that the behavior must be exhibited over an extended time period and on frequent time intervals throughout the day (Coleman). EBD students often display negative behavior patterns that impact their ability to meet with success in the school, community and home environment. Many times, these behaviors manifest themselves in the form of repeated episodes of verbal and physical aggression. According to Quinn and McDougal (1998) the behaviors and problems EBD students face as a result of their continued exhibition of problematic behaviors, exact a huge toll on their personal, family and community relationships. Others, such as Achenbach and Edelbrock (1978) added that, if continuous behavioral interventions are not implemented with EBD students, then their displays of physical and verbal aggression and explosive outbursts will not improve and may further deteriorate. Steinberg and Knitzer (1992) concurred with other researchers, supporting the theory that a great majority of EBD students go on to experience negative postschool trauma due to the lack of appropriate educational interventions implemented through quality programming.

*Future risks for failure of EBD students.* Mounting research revealed that EBD youth continue to experience much difficulty once leaving the education system. This is reflected in the results of a long-term study conducted by Steinberg and Knitzer (1992) “Over one-quarter of a sample of 800 secondary students had been involved with the courts within one year of leaving school, by the end of the second year, this percentage had sky-rocketed to 44%” (p. 147). A growing body of researchers including Quinn and McDougal (1998) agreed that continued exhibition of problem behaviors by EBD students are predicted to have long-term difficulties in all domains of life down the road.
Gresham (1981) concurred with other researchers, and added that EBD students’ lack of social skill development left these youngsters at greater risk for truancy, suspension and school drop out. The results of one research study demonstrated similar concerns, as reflected by Steinberg and Knitzer (1992): “Federal data suggest 42% of those 16 or older drop out, in comparison to 26% of students with any handicapping condition” (p. 147). Another potent research study conducted by Walker et al. (1995) provided further research supporting the problems experienced by EBD students in later adolescence such as the inability to hold jobs, potential for gang-related activities, alcohol and drug problems, and imprisonment.

After examining numerous research studies, it became quite evident that EBD students require specialized interventions in the school setting given their increased risk for high school drop out and their increased likelihood of involvement in the court system within 1 year of leaving high school. With the onset of violence in American schools and society in general, it was not surprising that this topic is in the forefront of today’s educational agenda. According to Derzon (1995), the students at the greatest risk for engaging in violent behavior should be targeted for attending behavior intervention programs. After careful analysis of research statistics presented by Steinberg and Knitzer (1992) it became obvious that because EBD students consistently demonstrate severely aggressive behaviors requiring specialized behavioral interventions, quality intervention models must be developed for these youngsters. The in-school and postschool success of this unique population looks bleak unless innovative research-based educational intervention practices are implemented in school settings that target their special needs. During the 24th Annual Teacher Educators for Children with Behavior Disorders Conference that was held in Arizona in November of 2000, many strategies, research, and
proposed practices designed specifically for use with the EBD student population were discussed. A discussion of possible ways educators could address violence concerns evident in today's schools was reflected in this statement by Rutherford and Sarup (2001): "Efforts to prevent school violence must include the promotion of effective academic and social behavior" (pp. 222-223). EBD students are clearly at risk for delinquent behavior and educational failure. Therefore, addressing their needs should be uppermost in the minds of educators when developing quality intervention programs.

**Importance of early behavioral interventions.** It is vital that positive behavior patterns be established in a child's formative school years. Numerous experts agreed that early identification and treatment interventions for children at risk for behavioral problems are a critical component for preventing the onset of challenging behavioral patterns (Walker et al., 1995). Well-designed early identification programs have proven to be effective in deterring long-term behavioral problems.

**Historical perspective: Origins of behavioral science.** Behavioral science's roots can be traced back to the Greeks and Romans. According to Coleman (1996), the Greeks were credited with believing that there were many natural causes contributing to an individual's underlying mental and behavioral disorders. Galen, a Greek physician who presided in Rome, proposed that the function of mental illness could be divided into mental or physical domains. Other historic theorists who contributed greatly to the evolution and formation of behavior science include Wolinsky, Aristotle, and Descartes. During medieval times, people afflicted with behavioral mental health disorders were sent to monasteries where they were sheltered, treated, and protected. The early middle ages through the 1600s was known as the segregation phase because the goal was to isolate individuals whose behavior deviated from the norm by placing them in hospitals.
and asylums. The 1700s to 1800s were known as the transition phase. During this phase, many advocates attempted to establish humane forms of treatment. Schools were organized to help train and treat individuals afflicted with various forms of mental illness. It was not until the early 1900s that the concept of integrating individuals into becoming functional members of society took hold (Coleman). Kennerly (2001) noted, “The basic antecedents of behavioral medicine can be found in the Hippocratic approach to medicine, and the objective techniques of the early learning theory in the observation of physiology and behavior” (p. 6).

Three monumental factors were believed to have contributed to the formation of the field of behavioral medicine: behavior modification, behavior analysis, and biofeedback. Many successful studies utilizing these approaches clearly backed their effectiveness. Many fields have contributed to behavioral medicine in its current state. The behavioral techniques born in the 1970s are the core of today’s behavioral methodologies.

Evolution of behavioral learning theories. Many behavioral learning theories evolved in the early 1960s. During this period a body of proposed behavioral theories were beginning to emerge and were the focus of numerous landmark research studies (Coleman, 1996). Slavin (1988) categorized learning theories in the following way: “Psychologists have developed two principal types of learning theories to explain how individuals learn, behavioral and cognitive” (p. 109). Behavioral learning theories were investigated in this literature review as applied behavior analysis has many historical roots in these specific theories. Behavioral learning theories heavily emphasize behavior in terms of what is observable and measurable. Slavin asserted, “Behavioral learning theorists are particularly interested in the way pleasurable or painful consequences of
behavior change the individual’s behavior over time” (p. 109).

Two early legendary behaviorists who conducted monumental behavioral research studies were Ivan Pavlov and Edward Thorndike. Pavlov is well known for his classical conditioning theory as outlined by Slavin (1988): “In the late 1800s and early 1900s, Pavlov and his colleagues studied the digestive process in dogs. During the research the scientists noticed changes in the timing and rate of salivation of these animals” (p. 110). According to Slavin, “In classical conditioning, neutral stimulus (such as a bell) that at first prompts no response becomes paired with an unconditioned stimulus (such as meat) and gains the power of that stimulus to cause a response (such as salivation)” (p. 111). Pavlov’s studies inspired Thorndike, who, according to Slavin, “viewed most behavior as a response to stimuli in the environment (notice the parallel to Pavlov)” (p. 111). Thorndike was famous for his theory on the law of effect. Slavin stated, “The view that stimuli can prompt responses was the forerunner of what became known as stimulus-response or S-R theory. Thorndike, like many of the early behavioral learning theorists, linked behavior to physical reflexes” (p. 111). Around the early 1930s, Coleman (1996) reported that Bender, a distinguished psychiatrist, developed and was responsible for implementing the first classrooms designed to meet the specific needs of students with EBD. However, these programs and others that followed were still fraught with problems. According to Coleman, services for EBD students were not as established as other programs designed for other exceptionalities. It is believed that parents were not accepting of the EBD label because of feelings of personal guilt as well as educators’ confusion with standard definitions and effective program intervention methods. It was not until 1964 that the Council for Exceptional Children founded the Council for Children with Behavioral Disorders.
History of applied behavior analysis. FBAs have been around for a long time. FBA roots can be traced back to the field of applied behavior analysis. Bijou, Peterson, and Ault (as cited in Olympia, Heathfield, Jenson, & Clark, 2002) stated “Functional behavior assessment procedures are not new and have a long history in psychology, with well-established roots in applied behavior analysis” (p. 139). As Kratochwill and McGivern (1996) pointed out, FBAs involve analysis of the function of given behaviors related to patterns of negative and positive reinforcers. This view is also reflected by Olympia et al. (2002): “Skinner describes lawful cause and effect relationships in behavior between stimulus-controlling events and the consequences that follow” (p. 139). Functional assessments seek to determine the function or cause of a person’s behavior and its relationship to environmental influences. The foundation of functional applied behavior analysis can clearly be linked to Skinner’s Operant Conditioning Theory.

Theoretical perspective. Many classic behavioral theorists emerged into the spotlight in the latter part of the 20th century. Skinner, Bandura, and Rogers were some of the theorists in the forefront of social, personality, and behavior change theories. Skinner (as cited in Restori, 1998) developed a widely known and respected behavioral theory that noted, “B. F. Skinner’s legacy to the field of applied behavior analysis was the introduction of operant learning theory” (p. 7). Skinner believed that behaviors are exhibited in response to different stimuli. According to Boeree (1998), his theory of Operant Conditioning states, “Behavior is followed by a consequence, and the nature of consequence modifies the organism’s tendency to repeat behavior in the future” (p. 1). According to Ward (1999), behavior serves two distinct functions: to obtain something positive or to avoid something perceived as a negative consequence. Continuing exhibition of severe behaviors is a problem. Skinner’s theory of Operant
Conditioning helped develop a behavior modification approach proven through many research studies to be effective in positively modifying behaviors that is reflected by Restori: “Operant learning theory was the basis for Skinner’s A-B-C model. The A-B-C model views behavior (B) as a function of its consequences (C) and its antecedents (A)” (p. 11). His famous “Skinner’s box” experiment was the catalyst behind his noteworthy theory of Operant Conditioning. According to Boeree, “Skinner was a strict behaviorist who sought to determine how behavior is caused by external forces” (p. 2).

Another renowned psychologist, Bandura, the grandfather of the Social Learning Theory, made phenomenal contributions to the field of social and behavioral sciences as well. Slavin (1988) asserted, “Social learning theory is a major outgrowth of the behavioral learning theory tradition” (p. 133). Boeree (1998) concluded that Bandura believed that the environment influenced people’s behavior and vice-versa. Slavin compared the theories of Bandura and Skinner concerning human behavior:

Bandura noted that the Skinnerian emphasis on the effects of the consequences of behavior largely ignored the phenomena of modeling—the imitation of others’ behavior—and vicarious experience—learning from other successes or failures. He felt that much of human learning is not shaped by its consequences, but is learned directly from a model. (p. 134)

Bandura believed that most behaviors exhibited by children are acquired observationally through modeling. He was among one of the first behaviorists to contend that television and other forms of media could have an extremely negative effect on our children and youth. He conducted numerous studies that demonstrated the strong influence that media has on our youth. He believed strongly that aggression is learned through a process of behavior modeling, as expressed by Boeree (1998): “Behavior focuses on variables we can observe, measure and manipulate. In the experimental method, the standard procedure is to manipulate one variable, and then measure its
effects on another” (p. 1). According to Boeree, one of Bandura’s most noteworthy
experiments that demonstrated his beliefs was called the bobo doll experiment. The bobo
doll was an inflatable doll with a weight in the bottom that made it bob back up when hit.
In this experiment, children viewed a film of adults aggressively attacking a bobo doll
with loud words and hammers. Immediately following the film, the children were placed
in a room with an comparable inflated bobo doll. The children proceeded to demonstrate
the same aggressive actions toward the doll. Bandura believed that, if childhood
aggression was diagnosed early and treated with appropriate interventions and therapy,
many future adult criminal aggressive episodes could be prevented. Observation and
modeling have a powerful influence on children’s behavior. Bandura (as cited in Slavin,
1998) contended, “Children constantly play games based on the behavior they see around
them, among family members, friends, and even characters on television” (p. 136).
Through analysis and observations of environment, behaviors can be positively changed
and manipulated through behavior interventions. Bandura believed strongly in the power
of observational learning and modeling as tools for promoting behavioral change for
better or for worse.

Other proposed theory-based effective behavioral treatments included
cognitive-behavioral intervention programs, experiential learning theory and the
motivation sensitivity theory. Growing evidence was found supporting the use of
cognitive-behavioral treatment programs for students who exhibit behavioral problems.
Initial research in the area of cognitive-behavioral interventions showed evidences that
this strategy effectively enhanced children’s self-esteem and social skills (Finch, Nelson,
& Ott, 1993). Cognitive-behavioral intervention strategies assist individuals with tools for
dealing with stressful events that could potentially trigger severe behavioral episodes.
Results of initial studies in this area demonstrated that children’s self-esteem and social skills were enhanced as a result of participation in a cognitive-behavioral intervention program. Children can be taught relaxation techniques to assist them. They can be taught to self-monitor, self-praise and self-reinforce their positive behaviors. Children can be taught to identify and analyze their negative thought processes and regenerate their thinking in a more positive productive manner. According to Petrocelli (2001) and Skiba and Casey (1985), cognitive-behavioral approaches have been proven to be especially helpful in treating children with emotional and behavioral problems.

Psychotherapist Carl Rogers, developed a theory entitled the experiential learning theory. He expressed the opinion that many nontraditional learners, and specifically EBD students, shut down in the learning environment. These students seemed to have enormous difficulty achieving both behaviorally and academically. If behaviorally disordered students do not feel that their teachers truly care about them, that could have a direct impact on their achievement in a variety of domains in the school setting. Smith (2001) reflected this view by asserting, “The facilitation of significant learning rests upon certain attitudinal qualities that exist in the personal relations between facilitator and learner” (p. 2). A positive student-teacher relationship built on trust, acceptance, respect, and deep understanding is fundamental to learner achievement in any classroom environment. Smith conveyed this thought completely when he expressed his feeling that “The whole conceptual framework of Carl Rogers rests on his profound experience that human beings become increasingly trustworthy once they feel at a deep level that their subjective experience is both respected and progressively understood” (p. 1).

A closely related theory proposed by Harrison, Gunter, Reed, and Lee (1996) explored the concept or hypothesis that language chosen for use by teachers of EBD
youngsters may have a negative influence on their behavioral and academic choices. Students with EBD may present with expressive and/or receptive language deficits that may adversely affect their ability to comprehend oral language instruction or commands. Harrison, et al. added the following about possible reasons why EBD students engage in challenging behaviors: “We hypothesize that students with EBD may use disruptive behaviors to escape and avoid teacher instructional language for which they do not have comprehension skills, and therefore find aversive” (p. 183).

Reiss and Havercamp (1999) proposed another unique theory entitled *The Sensitivity Theory*. These authors asserted that this theory was a creative process for analyzing student motivation. Seven studies were conducted to support this theory. A total of 2,548 individuals of different backgrounds, ages, and geographical locations took part in the studies. Of these, 943 were diagnosed with mental retardation or developmental disabilities. Of those individuals with disabilities, 531 exhibited significant behaviors. Conclusions indicated that the individuals with disabilities were rated as having very different values from the other group. Research indicated that many motives behind human behavior existed. Fifteen different motives were disclosed as a result of the studies. People experienced these motives with varying degrees of intensity and pleasure. According to Reiss and Havercamp, some recently completed research has linked sensitivities to genes. Sensitivities are related to challenging behavior associated with various genetic syndromes. The authors also noted that therapeutic programs should treat severe behaviors for both short and long-term intervals. More research is needed to support linking the positive effects that the sensitivity theory produces when used in conjunction with applied behavior analyses. However, initial study results support integration of the two theories. The authors presented a compelling case by including
empirical evidence demonstrating that many sensitivities can be objectively measured.

*Relationship of the Problem to Literature*

The basic principles of behavioral learning theories are well grounded and have demonstrated their validity through a wide array of empirically based studies. As Slavin (1988) asserted, “These principles are useful for explaining much of human behavior, and they are even more useful in changing behavior” (p. 139). Skinner, Bandura, and Rogers had much to offer as they provided valuable insight into why students with EBD behave in the manner they do. Each behavioral modification theory offers strategies for positively shaping behavior proven to be effective in producing valuable data about why disruptive students engage in patterns of negative behaviors.

Other theory-based effective behavioral intervention treatment programs such as the cognitive-behavioral strategies presented by Finch et al. (1995) and the sensitivity theory presented by Reiss and Havercamp (1999) offer unique alternatives for treating EBD youngsters.

Applied behavior analysis has been proven to be effective in determining the function of severe problematic behaviors for decades as referenced in the following statement by Restori (1998) indicating, “The research of Skinner, Kantor, Michael and others provide the field of applied behavior analysis with its theoretical foundation” (p. 9). Growing bodies of researchers agree that Functional Analysis techniques have been proven to be an effective methodology when designing a treatment utility. Momentous advances have been made in the underlying concepts behind functional analysis in recent years. Restori made his argument stronger: “As a result of its strong theoretical underpinnings, applied behavior analysis has evolved into a precise science that employs functional assessment to identify the variables that control and maintain behavior” (p.
Many of the theories investigated in this researcher’s literature review underlie the problems outlined in the problem statement developed by this researcher. The possible causes behind why an EBD child engages in disruptive behavioral episodes are endless. It is not easy to pinpoint exactly what factors contribute to an EBD student’s negative behavioral profile. According to research, EBD students’ behaviors may be the result of biological factors. Perhaps the youngsters possess a chemical imbalance that makes them more prone to exhibiting verbal and physical aggression. In contrast, behavioral learning theorists such as Pavlov, Skinner, and Thorndike believed that behaviors are exhibited in response to various environmental stimuli. Behavior modification programs employ pleasurable vs. painful consequence strategies for exhibition of negative vs. positive behaviors, shaped EBD students' exhibition of desirable behaviors. Bandura, in his Social Learning theory, expressed that behavioral learning theorists' emphasis on the important role consequences play in shaping behaviors is noteworthy; however, they grossly ignored the power that modeling plays on negatively and positively influencing behaviors. Bandura believed that most behaviors exhibited by EBD students are acquired observationally through modeling.

The renowned theories presented in literature were applicable to the targeted EBD students in the setting where this applied dissertation took place. This researcher believes that each theorist’s theory or combination of theories provided a viable explanation as to the primary cause behind an EBD student’s exhibition of problematic behaviors. Another factor included in the review of literature concluded that the lack of specialized intervention strategies for use with the EBD student population increased these students’ potential for engaging in violent behaviors. It was found that proactive behavioral
interventions must be employed with EBD students during their formative school years. Early identification and treatment programs were proven to be effective in deterring the onset of long-term behavioral problems.

This researcher was particularly interested in the literature pertaining to FBAs. FBA strategies have a long history in psychology and its roots can be traced to the field of applied behavior analysis. FBAs seek to reveal the causes or function of an EBD student's behavior. FBAs analyze a child's behavior and its relationship to environmental triggers. FBAs offer a comprehensive plan for identifying the myriad of variables that influence and maintain an EBD student's continuous exhibition of physically and verbally aggressive behaviors. This researcher implemented the research-based intricate steps of the FBA process with the targeted EBD students that were the focus of this researcher's applied dissertation study. Analysis of FBA data revealed in the literature provided much hope in discovering the underlying causes of a given EBD student's challenging behaviors.
Chapter 3: Anticipated Outcomes and Evaluation Instruments

Goal

The goal of this applied dissertation was that EBD students in kindergarten through fifth grade would display nonaggressive and nondisruptive behaviors in the school environment after the applied dissertation intervention.

Expected Outcomes

The following outcomes were projected for this applied dissertation:

1. At the end of the implementation project, 8 of 10 of the EBD students targeted, demonstrated a decrease in physically aggressive disruptive behaviors. These behaviors included kicking, hitting, pushing, running away, throwing objects, verbal abuse (threats) and self-injurious behaviors such as head banging, banging on the desk and eating nonfood items (e.g., staples). No more than four aggressive behaviors per school week occurred. These were measured by daily documented FBA data-collection logs, Paired Samples T-Test, database compilation reports and individual Exploratory B single subject research design graphs that were tracked over a 9-week period.

2. At the end of the FBA/BIP implementation period, before and after Likert scale EBD student surveys conducted with the family counselor, three EBD teachers, and three EBD paraprofessionals at this school site documented a decrease in aggressive behavioral incidents by 8 of 10 EBD targeted students.

3. At the end of the FBA/BIP implementation period, a comparison of before and after Likert scale EBD student surveys were conducted with the family counselor, three EBD teachers, and three EBD paraprofessionals, at this school site. These surveys reflected an increased positive perception about the effectiveness of FBA data in assisting in the development of BIPs with EBD students.
4. At the end of the FBA/BIP implementation period, a comparison of before and after Likert scale EBD student surveys conducted with the family counselor, three EBD teachers, and three EBD paraprofessionals and comparison of before and after school personnel Likert scale surveys conducted with the school psychologist, speech clinician, three EBD teachers, three EBD paraprofessionals, and family counselor reflected a positive perception about using the ILI (Knoster, 2000) as being a valuable screening tool for identifying patterns of problematic behaviors for use in developing effective behavior intervention plan strategies for EBD students.

5. The number of aggressive incidents requiring Professional Crisis Management (PCM) restraint techniques decreased to no more than two restraints during the last 4 weeks of the implementation phase as indicated by the PCM log compilation data report.

6. During the implementation phase of this project, the 10 targeted EBD students required no more than six external time-outs in a 9-week period as recorded in the external timeout log compilation data report.

Measurement of Outcomes

Functional Behavior Assessment (FBA) data-collection logs were used to measure the effectiveness of targeted outcomes. The FBA log included scatter-plots, informal observations, A-B-C observations and post-EBD student questionnaires (see Appendix F) and EBD Student Likert Scale Surveys (see Appendix G) conducted with each of the 10 targeted EBD students. Scatter-plots were graphed on half-hour segments of time. This technique for collecting data was chosen for implementation by this researcher as it was developed and approved by the District in which this researcher works. The scatter-plot was presented on a graph and involved recording the times of day and/or activities in which the behavior occurred and did not occur in order to identify
patterns of behavioral incidents over a period of days or weeks. Times of day were
divided into half-hour segments throughout the seven-hour school day where behaviors
were recorded for each student. A target behavior was identified for documentation on
each scatter-plot. For example, if the target behavior was physical aggression then that
block was colored in black if the student exhibited the target behavior of aggression
during that block of time. The scatter-plot was completed by the EBD classroom teacher
and/or EBD paraprofessional each day, for 4 to 6 weeks. The scatter-plot took
approximately a total of 15 minutes per day to complete.

The A-B-C observation method chosen for implementation was a protocol
developed and approved by this researcher’s district. The protocol was a written form.
The "A" was Antecedent (description of activity and specific events preceding the
behavior, e.g., specific interactions); the "B" was Behavior (description of exactly what
the student said or did), and the "C" was Consequences (description of events that
followed or the results of the behavior, e.g., reprimands, delays in activities). A-B-C
recording involved documenting the student’s behavior and the events that immediately
preceded and followed it. The more specific and precise the description, the more useful
the data was. The A-B-C information was recorded on each student on a grid that was
broken down into three columns. The first column was used to document antecedent
behaviors, the second was used to document behaviors exhibited and the last was used to
document consequence strategies employed. The date, the time begun, and the time
ended were all included on this data collection form. An A-B-C data collection protocol
was conducted every week for 4 weeks on each of the 10 targeted EBD students. Each
observation took 30 minutes to complete. The Family Counselor conducted five, the
school psychologist completed two, and this researcher conducted the remaining A-B-C
observations.

One postinterview was conducted with each of the 10 targeted EBD children at the end of this researcher’s applied dissertation phase of study. The interview questionnaire was developed and conducted by this researcher using an oral format. Open-ended questions were asked. The Family Counselor was present at each interview session to record precisely each student’s response to ensure accuracy.

The ILI FBA team interview method was employed by this researcher. Each EBD student’s parent(s), teacher, paraprofessional, family counselor, as well as the school psychologist or guidance counselor were active participants at each meeting. Each individual ILI School Team Interview was conducted using an oral format. EBD student information was charted on three sheets on 2’x3’ chart paper. This process took approximately 60-75 minutes to complete. At the beginning and end of the ILI process, School Personnel Likert Scale Surveys (see Appendix I) were distributed and conducted before and after implementation with each of the team participants.

A School Personnel Pre-EBD Student Survey (see Appendix J) and a School Personnel Post-EBD Student Survey (see Appendix K) were conducted by this researcher and with the family counselor, three EBD teachers, and each of the three EBD paraprofessionals. This survey was designed by the researcher, using a 4-point likert scale. School personnel were asked to rate 10 questions using the following criteria: agree strongly, agree, disagree and disagree strongly. Each survey took less than 30 minutes to complete.

Parent and teacher Behavior Assessment System for Children (BASC) behavior rating scales were used to measure student’s levels of behaviors in various domains. According to Shapiro and Kratochwill (2000), behavior rating self-reports are helpful in
assessing children's behaviors across settings. Breen and Fiedler (1996) concurred adding that “behavior rating scales have been developed on the basis of statistical procedures such as factor analysis to aggregate multiple items into empirically derived scales” (p. 11). These authors went on to add that the BASC developed by Reynolds and Kamphaus (as cited in Breen and Fiedler, 1996) “has the advantage of parallel forms for multiple informants normed on samples” (p. 11). Sattler (2002) emphasized that the BASC is a valid tool for rating children's behaviors and indicated, “The BASC is designed to evaluate psychological problems in children and adolescents. Its strength is in the assessment of children age's 6-11 years, particularly in the evaluation of externalizing behavior problems” (pp. 170-171). The BASC Parent and Teacher rating scales were chosen because behavior assessment of children ages 6-11 years externalizing behaviors was precisely what this researcher sought to analyze in this applied dissertation project. Parent and teacher BASC rating scale impressions were compared prior to and after the study to help assess outcome measurement objectives.

The PCM/timeout logs were written as data collection logs. The teacher, class, date, and school, as well as the student's name were written on the log. Other important information included the reason code, description of restraint, and place of restraint. The duration of the behavioral episode and a detailed description of the incident were recorded in the log. The PCM initiators' names were included and documentation of whether or not parents were notified was also recorded. The result code was indicated, i.e., whether the student sent back to class, sent to timeout, sent home, or suspended. PCM data were entered into a data collection database. This allowed for easy PCM incident comparisons prior to and after this phase of the applied dissertation study.
Mechanism for Recording Unexpected Events

Unanticipated and unexpected events were documented in a specially designed applied dissertation journal. This researcher kept a daily log in the form of a journal. The date, time of day, and event were recorded in this journal as well as any interpretation or feedback. In addition, a portfolio containing pictures and/or samples of specially designed interventions and behavioral strategies was kept. Daily student point sheets, printed out copies of the 10 targeted EBD students’ FBA/BIPs as well ILI Team Interview Flow Charts and individual FBA/BIP monitor logs including review dates were also stored in this researcher’s portfolio.
Chapter 4: Solution Strategies

Discussion and Evaluation of Solutions

The problem solved in this applied dissertation was as follows: Elementary age EBD students, kindergarten through fifth grade, displayed physically aggressive and disruptive behaviors in the public school setting.

After carefully examining numerous research studies and behavior intervention programs contained in this researcher’s literature review, it became obvious that EBD students’ continual exhibition of aggressive behaviors required specialized behavior interventions (Steinberg & Knitzer, 1992). According to Rutherford and Sarup (2001), strategies that have been specifically designed for use with EBD students must be implemented. Walker et al. (as cited in Restori, 1998) “suggest that schools will need to play an integral role in addressing the problems presented by children exhibiting behavioral problems” (p. 48). A comprehensive early intervention plan, rich in quality social skills training, appropriate curriculum, and family involvement, is of utmost importance. Growing evidence supports the use of proactive early intervention programs to diminish the prevalence of development of significant social-emotional behavior problems in behaviorally at-risk youngsters later on. Early intervention programs have been the focus of many research studies. One model proposed by Conroy and Davis (2000) implemented an outstanding proactive early intervention program using FBA strategies as prevention and remediation tools with at-risk preschoolers. FBA tools are available to detect warning signs of at-risk preschool and young elementary-age students. Classroom environments and instructional materials and methodologies can be assessed as well through a formal functional assessment. Changes to the environment and instructional components of the classroom can be made to successfully treat problematic
behaviors in the classroom. Antecedent behaviors and consequences of children who exhibit severe behaviors in the classroom can be analyzed by conducting an FBA in the typical prekindergarten, kindergarten, and first-grade classroom environments. This multifaceted method of functional behavioral assessment allows teachers to assess and implement strategies to enable students at risk for behavior problems to learn strategies to meet with success in the regular education setting.

Another strategy developed by Schwartz (1999) noted, “Social validity assessment can play an important role in providing early intervention alternatives to families” (p. 191). Schwartz explained that families of students with behavior disorders should be intricate members of the intervention team as this strengthens the chance of students reaping the rewards of successful behavior intervention programming. Forness, Serna, and Nielsen (2000) developed and studied another early intervention Head Start program entitled Youth Development Incorporated (YDI). YDI is a self-determination curriculum designed to be implemented with at-risk preschoolers. The results of this early detection intervention program were extremely encouraging. They are reflected in the study results presented by Forness et al. (2000): “Fifty-three (53) at-risk socially, emotionally or behaviorally disordered preschool age children were compared to 31 children from a control classroom. Significant changes in pre and post scores were found on adaptive behavior, social interactions, inattention, and problem behavior” (p. 79). From analysis of the positive results of numerous early intervention research, this researcher concluded that, when preschool-age children are taught skills such as sharing, following directions, and decision-making at a young age, there appeared to be a decreased incidence of later development of significant behavioral problems.

*Importance of specially designed school-based interventions.* After analyzing
many research studies, this researcher concluded that EBD youth require specialized behavior intervention programming in order to ensure academic and social emotional growth in the school environment. The way in which to procedurally go about achieving this goal can be difficult. Osher, Osher, and Smith (as cited in Quinn and McDougal, 1998) asserted, "Educating students identified as seriously emotionally disturbed is one of the most stressful, complex and difficult challenges facing public education today, and perhaps one of our greatest failures" (p. 192). Horner and Carr (1997) determined that developing quality behavior treatment programs for EBD students is of utmost concern. They feared that, without effective behavioral support, students with behavioral disorders would be forced to remain in small self-contained isolated settings. Guetzloe (2001) reflected a similar view, stating that many unique innovative academic and behavioral programs have evolved over the past 30 years as a result of studying the characteristics and needs of EBD students. Advocacy for students with EBD is a prevailing need. Guetzloe stated that a public campaign needs to be mounted to apprise the public and gain support to enable schools, families, community and other outside agencies to work together to provide the best treatment and educational opportunities for EBD youngsters.

Disciplinary requirements according to the law. Are schools safe? School violence and other incidents of aggression by students in schools are on the rise. Schools are no longer just institutions where academics are taught. Sometimes student behaviors negatively affect their learning and the learning environment of others. If the disruptive student is a student with disabilities, then he or she has certain protections under the law. On June 4, 1997, President Clinton signed the Individuals with Disabilities Education Act (IDEA) into law. The 1997 Reauthorization of IDEA clarified a variety of issues related to disciplining students with disabilities. One discipline procedure amendment that was
outlined by Hartwig and Ruesch (2000) states, “In the case of a student whose behavior impedes his or her learning or that of others, the IEP team must consider, when appropriate, strategies to address that behavior” (p. 241).

IDEA requires that individual states and school districts examine their current disciplinary practices and procedures. There are massive disciplinary regulations outlined in the new IDEA 1997 amendments. School districts must have a clear understanding of the law or they may find themselves in violation of one or more of the many amendments.

The 1997 Reauthorization of IDEA is very clear about suspensions and/or expulsions of students with disabilities. When a student with disabilities is suspended or excluded from Free and Appropriate Public Education (FAPE) for 10 or more school days, the 1997 IDEA amendment clearly defines its intent under these circumstances. As Weatherly (2000) stated:

If a suspension is effected for up to 10 school days, the following must be done either before or not later than 10 days after taking such action:
   a. If the LEA did not conduct a functional behavioral assessment and implement a behavioral intervention plan for such child before the behavior that resulted in the suspension, the agency shall convene an IEP meeting to develop an assessment plan to address that behavior, or
   b. If the child already has a behavioral intervention plan, the IEP Team shall review the plan and modify it, as necessary, to address the behavior (20 U.S.C.§1415(k)(1)(B). (p. 17)

According to Hartwig and Ruesch (2000), “The discipline provisions of IDEA ’97 have proven to be the most controversial aspect of the law” (p. 273). The law includes provisions requiring the use of prevention strategies for IDEA eligible students who engage in chronic problematic behaviors. Hartwig and Ruesch pointed out that school systems have a hard job ahead as they attempt to comply with the law while striving to incorporate best research-based practices with each student. As the Council for

The IDEA Amendments of 1997 required that, if a student with disabilities exhibits significant behaviors that impede his or her learning, then an FBA should be conducted to evaluate possible reasons why the student is engaging in negative patterns of behavior. From the FBA data, an individualized BIP should be developed and implemented with the behaviorally challenged student to ensure that he or she meets with success in the Least Restrictive Environment. FBAs are based on solid philosophical ideologies and results of numerous empirically based research findings (Drasgow, Bradley, & Shriner, 1999). According to Knoster (2000), analysis of data allows educators to create and implement a BIP rich in effective behavioral and academic strategies.

Research clearly indicated that students identified as EBD demonstrate many challenging behaviors that interfere with their ability to meet with academic, behavioral and social success in the school environment. In many circumstances, these students exhibit severe types of behavior, which prevent them from successfully participating in the least restrictive environment. Sometimes, the behaviors exhibited by these youngsters are so severe in nature that these behaviors may interfere with their access to a FAPE. The 1997 Reauthorization of IDEA protects the rights of EBD students in this case. An FBA and subsequent BIP must be developed and implemented with any EBD student in danger of being denied FAPE. The law is very clear in this regard.

Why do EBD students display chronic disruptive behaviors? How can educators and parents assist these youngsters? Is the answer to continue to use punitive measures that isolate them from school and society? Review of research conducted on this subject,
clearly demonstrated that the future outlook for most EBD students looks grim unless the underlying factors contributing to their exhibition of negative behavior patterns is effectively treated. The demand for accurately assessing their behavioral needs is evident. Horner and Carr (1997) asserted, “Problem behaviors, such as aggression (hitting, biting, kicking); self-injury (head banging, self-biting); and property destruction and disruption (screaming, throwing, pounding), have been a major cause of exclusion for students with severe disabilities” (p. 84). Students who are EBD continue to exhibit dangerous behaviors that prevent them from inclusion in typical classroom settings. FBAs are a crucial component that can be extremely helpful in remediating and preventing EBD students’ social and behavioral problems. By law, FBAs are required to be completed for EBD students who exhibit significantly disruptive behaviors that may result in a period of exclusion from FAPE. The importance of conducting FBAs is so well established that it is now a required disciplinary procedure included in the 1997 amendments of IDEA.

The FBA was born from the field of Applied Behavior Analysis. Numerous scholarly journals including the Journal of Applied Behavior Analysis have published a vast array of journal articles that contain empirical documentation demonstrating the value of behavior analysis methods to evaluate reasons or causes for students’ exhibition of behavioral defects in the school environment. According to Gresham, Watson, and Skinner (2001), FBAs are a process that attempts to find a connection between various environmental variables that serve to maintain a problematic student’s disruptive behaviors. Through analysis of the FBA data, a cause or function of a given student’s behavior is revealed. The U.S. Department of Education (OSEP, 2000), noted, “FBA is a systematic process for describing problem behavior, and identifying the environmental factors and surrounding events associated with problem behavior” (p. 2). Fox and Conroy
(2000) visualized FBA “as a process rather than as any particular instrument or set of instruments” (p. 140). The components revealed by FBAs can be extremely helpful in identifying, remediating, and preventing EBD students’ social and behavioral problems. OSEP (2000) stated, “Functional Behavioral Assessment information is used to identify and teach more appropriate replacement behaviors and to develop an effective plan for reducing the frequency or severity of the problem behavior” (p. 2). Sticher, Shellady, Sealander, and Eigenberger (2000) asserted, “Functional Behavioral Assessments consist of clearly defining target behaviors, multiple methods of assessment with multiple sources of data, functional hypothesis development and verification, and interventions that are based on the assessed behavior function(s)” (p. 143).

What are the components of functional behavioral assessments? Sugai, Lewis-Palmer, and Hagen-Burke (2000) provided interesting and noteworthy suggestions for implementing the intricate steps required for successful completion of the FBA process. They proposed that five different steps be followed. The first step included gathering interview statements and rating scales collected by any individuals who have had direct experience with the problematic student. Second, based on this information, a summary statement or hypothesis statement describing the student’s behavior must be developed. Triggers or setting events, antecedents and maintaining consequences are used to help formulate the hypothesis statement. The third step involved collecting direct observation data to confirm the hypothesis statement. Observations must be completed in a variety of settings, time blocks, dates and instructional periods. Following this process, the next step was to formulate a desired replacement behavior statement to take the place of the problem behavior. Developing a BIP was the last step of this proposed FBA process.
Interviews. Interviewing the child, parent, and teacher provide valuable tools in the FBA process. The advantage is that they allow quick review of a huge number of antecedents and consequences that may influence a problem behavior. The interview process enables the FBA team to identify key events and situations that contribute to a problematic student’s pattern of negative behaviors, noted by Horner and Carr (1997): “The interview focuses on patterns of behavior across the entire day and over a wide range of conditions” (p. 89). There are numerous informal, as well as formal, interview protocols available. An example of an informal interview format is one used by Broward County Public Schools entitled The Interview Guide for Functional Assessment. This oral interview is conducted by an FBA team member and someone who knows the student, such as the parent(s), counselors, teachers, and so forth. Questions pertaining to the student’s strengths, skills and interests, as well as challenges and areas of greatest difficulty, are addressed. Questions that specifically address descriptions of the problem behaviors, as well as frequency and duration, are also included. The interviewee is asked for input regarding his or her feelings about what motivates or causes the behavior as well as the circumstances under which the behaviors occur (times of day, with whom, where). Questions pertaining to possible medical factors that may have contributed to the patterns of problematic behaviors are also included in this comprehensive interview protocol. Examples of formal interview protocols included teacher and parent rating scales. The BASC and Achenbach Child Behavior checklists were two common rating scales reviewed by this researcher. Parent and teacher views on exhibition of specific behaviors can be assessed fairly accurately using these protocols. The validity of these protocols has proven to be effective through numerous research studies (Musser, Bray, Kehle, & Jenson, 2000).
Knoster (2000) proposed a very intriguing school-based team interview FBA method: “The ILI is an initial screening process for identifying, analyzing, and addressing student problem behavior” (p. 204). Knoster added, “The ILI is an informant method (team interview) that serves as a screening tool for identifying patterns of student behavior” (p. 204). This method has been employed in the tristate region of the United States and was funded and researched by OSEP. Initial positive survey results from teams who used this approach were encouraging. In an ILI process, school-based team members meet together as a group and brainstorm using an ILI flow/flip chart (see Appendix H), possible behavioral triggers, setting events, emerging patterns of behavior and other relevant information about the child. From all this recorded information, the team works together to come up with and formulate a hypothesis statement or logical explanation about the function or factors for the student’s problematic behavior. Intervention strategies are discussed in detail by reviewing, utilizing and analyzing the data collected. The ILI process usually takes approximately 60 minutes to complete. According to Knoster, “The ILI can serve as a valuable vehicle for helping student-centered teams understand the behavior of concern from a functional perspective and lead to more effective intervention strategies” (p. 205). Interviews must be conducted with individuals who have direct contact with the problem student. Valuable information can be obtained through the interview process. Creative interview formats such as the ILI process hold much promise. This researcher obtained this ILI interview strategy and implemented this procedure as part of this applied dissertation project.

Hypothesis/antecedents/consequences. Another critical component of the FBA process identified by review of literature by this researcher was the importance of developing quality hypothesis statements about the function of a behaviorally challenged
student’s disruptive behaviors. As Horner and Carr (1997) pointed out, accurate hypothesis statements can be developed about the purpose for a given behavior. Through analysis of a student’s behavioral consequences, OSEP (2000) reflected the view that development of meticulous hypothesis statements are crucial as they help educators see a correlation between behavioral outbursts and environmental variables that may contribute to the problem behavior. It became equally apparent that analysis of possible antecedent and setting events leading up to a student’s exhibition of severe behaviors were also important factors. A study conducted by Taylor and Romanczyk (1994) examined whether hypotheses statements could be formulated about the function of a problematic student’s behavior by observing types of attention teachers give these students across various types of small group settings. Taylor and Romanczyk pointed out that, “Based on the amount of attention each student received, we generated hypotheses about the function of his or her problem behavior” (p. 251). Fifteen students identified with special education classifications participated in the study. According to Taylor and Romanczyk, “Direct observation of teachers’ distribution of their attention among groups of students may provide an efficient, effective, empirically-based method of generating hypotheses about the function of attention- and escape-maintained student problem behavior” (p. 264).

Another key component of the FBA process revealed through studying literature was the importance of implementing informal and formal observations. Reichle and Wacker (1993) stated that direct observations are one of the best assessment tools as they provide specific guidance for interventions. A vast array of observation protocols was examined. Some common types of observation methods/tools reviewed included narrative descriptions, behavior point sheets/anecdotal records, antecedent behavioral
consequence observation forms and scatter plots. Gunter, Davis, and Brall (2000) developed a user-friendly observation protocol that provided efficient as well as informative information. The protocol observation categories were developed based on research conducted on effective instruction. Quality observations enable professionals to accurately analyze student behavior and subsequent effective interventions. However, it is important to note that valid data collection observational methods take time and training.

**FBA summary.** FBAs are nothing new. They have been in existence and empirically studied through research for more than a decade. The 1997 Reauthorization of IDEA has pushed FBAs into the limelight. According to Friend, Houston, and Howard (1998), quality FBAs used in conjunction with subsequent development of BIPs can provide crucial information indicating possible reasons as to why a student is experiencing academic and/or social deficits. It may also give insight into ideas for replacement skills that will serve to deescalate potential problem behaviors in the future. Data gathered through the FBA process provide an understanding of how a disabled student’s challenging behavior relates to the environment. The more severe the behavior, the more complex and precise the FBA process must become. Most researchers agreed that it is extremely important that an FBA be a collaborative team effort comprised of knowledgeable professionals who have expertise in the field of behavioral science and/or who know the student well (Fox & Conroy, 2000). Another study conducted by Conroy, Clark, Fox, and Gable (2000) concurred stating that, to date, there is a limited amount of empirical research data available linking FBAs and the use of them with the EBD student population. However, given the new guidelines mandating disciplinary revisions and inclusion of FBAs for use with EBD students, school-based educators must build
competence in this area. It has become apparent that, in order for schools to conduct
quality FBAs with EBD students, teacher educators must possess many skills including
increased exposure to comprehensive training opportunities. Some researchers expressed
concern about the reasons why some FBAs are developed. They hope that FBAs do not
just become an attempt to meet with the legal requirements, in other words a compliance
issue rather than the completion of FBAs for the benefits and goals they were truly
designed to achieve, to assist behaviorally disordered students. According to OSEP
(2000), the main reason for conducting an FBA is to develop a BIP that is both effective
and efficient at enabling the student to meet with success in all areas (behavior, academic,
social-emotional) in his or her current educational setting. FBAs are a powerful
assessment tool in constructing BIPs that are effective in assisting the behaviorally
challenged student to meet with success in the least restrictive of educational
environments.

Behavior intervention plans. There is an abundance of literature demonstrating
the effectiveness of behavioral interventions for reducing disruptive student behaviors. In
a meta-analytical study conducted by Warger (1999), more than 100 journals were
reviewed and synthesized. The results demonstrated strong support in favor of using
FBAs and Positive Behavior Intervention System plans to assess and treat effectively the
behaviorally challenged youth in school settings. This is evidenced by the following
research study result presented by Warger “PBS [Positive Behavior Intervention System]
is effective in reducing problem behavior by 80% in two-thirds of the cases” (p. 3).
Compelling evidence supports the fact that Functional Analysis and Positive Behavioral
Support plans provide a positive framework for effectively dealing with a school’s most
Intervention Plan is a written, specific, purposeful, and organized plan which describes positive behavioral interventions and strategies that address a student’s social, emotional, and behavioral development” (p. 8).

The purpose of a BIP is to analyze and manipulate a student’s physical or social setting in an effort to prevent challenging behavior from occurring by making behaviors less efficient and effective (Clair & Burr, 2000). Amendment Section 1414(d)(3)(B)(I-v) of the 1997 Reauthorization of IDEA clearly stated that BIP strategies must be developed and implemented with any special education student whose behaviors are interfering with their learning or the educational environment of his or her peers (Friend et al., 1998).

Positive BIPs are a very systematic plan for changing environmental variables that contribute to students’ problematic behavior patterns. As Warger (1999) so aptly phrased it:

Unlike traditional behavioral management which views the individual as the problem and seeks to ‘fix’ him or her by quickly eliminating the challenging behavior, positive behavioral support (PBS) and functional analysis (FA) view systems, settings, and lack of skill as parts of the ‘problem’ and work to change those. (p. 2)

Schwartz (1999) and OSEP (2000) both agreed that it is imperative that families of students with EBD be an integral part of the development of the behavior intervention plan. The BIP team should be comprised of all people who have direct relationships or interactions with the child including school personnel, family, outside agencies and specific community members when appropriate.

As stated previously, the FBA serves as an important part of the process in determining appropriate positive behavior intervention plans. BIPs are developed after careful analysis of FBA data. The goal of BIPs is to eliminate problem behavior or to replace problem behavior with more appropriate behavior. This is reinforced by Mostert
and Kavale (2001): “A central and ongoing concern in the field of emotional or behavioral disorders (E/BD) relates to the efficacy of educational and behavioral interventions” (p. 53). Proactive behavioral intervention strategies, instructional and curricular modification methods, self-management skills, replacement skill strategies, and crisis management techniques are all part of developing an effective BIP. In general, according to Stage and Quiroz (1997), a quality BIP has four distinct fundamental features. These include (a) strategies for teaching replacement behaviors, for example modeling, replacement positive role-playing, and guidance; (b) proactive strategies, such as environmental adjustments that can be used to make the student’s problem behavior unnecessary; (c) consequence strategies, or positive consequences that can be implemented to reinforce display of appropriate replacement behaviors; and (d) maintenance strategies, or interventions to be implemented across time, people, and settings.

*Training and staff development programs for EBD students.* Although many programs for EBD students are thriving and are doing the best things for EBD youngsters, this researcher has revealed through research that many EBD programs fall very short. As Guetzloe (2000) stated, “Far too many school programs for students with EBD are marked by overcrowded classes, teachers who are untrained and unmotivated and administrators who are not only unknowledgeable about EBD but also much more concerned with paperwork than they are with student outcomes” (p. 66). A related problem is the lack of training many EBD teachers possess. Teachers who work with EBD youngsters require specialized training to effectively meet the unique needs of these students. Although our theoretical understanding of EBD and our intervention procedures have improved, as Horner and Carr (1997) so aptly stated, “A vast gap remains, however,
between what is known about exemplary behavior support and the actual delivery” (p. 98). According to Stage and Quiroz (1997) in their meta-analytical study, “Many teachers report a lack of training in techniques to manage disruptive students” (p. 333). Furthermore, in an article published by the Council for Exceptional Children (2002), it was reported that many special education teachers are not qualified and certified to teach specialized areas of exceptional education to include EBD students. FBAs and subsequent BIPs hold much promise as a solution to improving interventions designed to meet the unique behavioral, academic and social needs of students with EBD.

Training. An expanding body of researchers agreed that although there is some literature demonstrating FBA effectiveness with EBD students, there is little empirical research data demonstrating the content necessary to conduct quality FBAs with EBD and behaviorally challenged students in the public school environment. Consequently, specific guidelines for training personnel in the use of FBAs, with students diagnosed with EBD, was also found to be limited. Schiter et al. (2000) concurred, asserting that more empirically based research studies needed to be conducted on FBA techniques and assessment instruments for utilization with EBD students before effective training programs could be developed. Unfortunately, since the IDEA ’97 mandate, school districts have scrambled to haphazardly coordinate FBA training workshops to comply with the law. The 1997 amendments do not give practitioners, who are unfamiliar with the developmental history and research base of FBA, specific information about what FBA is and what the FBA process looks like (Sugai et al., 2000). Consequently, it became apparent that professionals lacked the FBA knowledge and experience to create and conduct quality FBA workshops. The result, unfortunately, was FBA training programs designed for EBD students with no empirical research to validate the
effectiveness of the content being taught. Schiter et al. (2000) suggested some skills that practitioners need to acquire in order to effectively develop and implement a core competencies program. Prerequisite skills identified included (a) critical thinking skills, (b) teaching expertise, (c) up-to-date research knowledge in the field of FBA, and (d) an open-minded attitude and willingness to override previous personal bias pertaining to FBA philosophies.

In another study, Conroy et al. (2000) reviewed some additional preliminary literature that yielded specific guidelines for training personnel in the content-knowledge areas for FBA training with EBD students. These areas included (a) building knowledge about the theories behind applied behavior analysis, (b) building competence in FBA analysis and application, (c) training in multicomponent FBA interventions, (d) training in collaboration team-building, and (e) FBA efficacy training to include opportunities to develop professional expertise in the ability to identify EBD students’ function or cause behind their exhibition of problematic behaviors.

Conroy et al. (2000) warned against conducting one-time FBA training sessions, as the process is far too complex, asserting, “In the field of education, we often conduct ‘one-shot’ in-service training. However, we know that this is not likely to produce skills that teachers can maintain and generalize to classroom settings” (p. 171). FBA training should be an ongoing process. Quality FBA training programs allow professionals many opportunities to practice FBA techniques and reconvene in an inservice training forum to discuss findings, pitfalls and feedback from FBA experts. School personnel not only need quality training experiences on conducting FBAs, but they also need training opportunities that target how to interpret and analyze FBA observation data. According to Fox, Gunter, et al. (2000), “This includes the ability to identify behavior-environment
patterns, graph data, analyze trends in graphed data, and conduct environmental manipulations of suspected triggers and consequences to evaluate hypotheses of behavior functions derived from observation” (p. 156).

Better standards for development of FBA training programs for implementation with behaviorally disordered students must be set in place. Evaluative measures, such as the core competency evaluation system and the content knowledge-based training program presented, need to be implemented. Collaborative efforts are needed to ensure that FBA training programs and behavior improvement plans designed to meet the needs of EBD students are effective and technically sound. The FBA process is only as good as the professional expertise involved in the process. After reviewing numerous related literature articles, it has become imperative that we not forget the true purpose of the FBA. FBAs are not just another assessment but a complex series of steps in which the ultimate goal is to develop effective interventions that will enable students with challenging behaviors to meet with success in the school environment.

Research-based student intervention best practices. Designing and implementing highly motivating effective EBD programs are a prevailing need documented through review of innumerable research articles and books. According to Stage and Quiroz (1997), numerous empirically based studies have demonstrated the importance of implementing effective behavioral intervention strategies in order to decrease disruptive classroom behaviors and increase positive exhibition of acceptable behaviors in the school environment. In a review conducted by Steinberg and Knitzer (1992), 374,000 EBD students’ placements and educational services were analyzed. The results indicated that the majority of EBD classrooms fell short in their delivery of effective behavioral and academic interventions. According to Steinberg and Knitzer and Meadows, Melloy,
and Yell (1996), EBD student programs should create and implement a curriculum that is highly motivating and interesting to the students. In a study conducted by Gunter, Kenton, and Venn (2000), the authors affirmed that EBD students have greater academic and social skills growth when appropriate curriculum, instructional materials and curriculum modifications are implemented with them in their daily classroom routine. As Gunter et al. (2000) so aptly confirmed, “Curriculum (the what and how of information presented) may unintentionally serve as a major source of aversive stimuli for students with EBD and thereby influence behavior that is counter to the goals of instruction” (p. 116). Kern, Delaney, Clarke, Dunlap, and Childs (2001) agreed, indicating that curriculum modification strategies are essential when implementing individual education programs for EBD students.

Furthermore, the classroom climate of EBD classrooms must be positive. Positive reinforcement and/or praise must be given on frequent time intervals to EBD students when they demonstrate appropriate behaviors. Sutherland and Wehby (2001), Meadows et al. (1996) and Steinberg and Knitzer (1992) concurred, stating that praise is a proven effective EBD teacher intervention strategy that in and of itself enhances EBD students’ behavioral, academic and social skills. Sutherland (2000) conducted a study that linked the effect praise had on positive EBD student academic and behavioral progress and the findings concluded the following, “The literature indicates that teacher praise has had positive effects on both academic and behavioral outcomes” (p. 111). Unfortunately, after conducting four separate studies, it was determined that there is a lack of praise issued by teachers in EBD classrooms. Sutherland noted that “Results of these four studies point a bleak picture of classroom environments regarding rates of teacher praise for students with EBD. Rates of praise across all studies were extremely low, ranging from 1.2 to 4.5
per hr. per student” (p. 11). Sutherland and Wehby revealed that there is a wealth of empirical research data demonstrating the need for EBD teachers to increase their use of praise with their students. It becomes obvious that a positive classroom environment rich in praise appears to foster successful school experiences that in turn nurture social, behavioral and academic growth in students with EBD. Fox et al. (2000) concurred, on a closely related concept, stating that the role teacher interaction plays in student behaviors can be significant.

In a study conducted by Sutherland and Wehby (2001) a teacher praise self-evaluation intervention strategy was implemented with promising results. Teachers were taught how to monitor and rate their use of effective praise each day over a 5-month implementation phase. They used audiotapes to record and rate their exhibition of praise. Outside evaluators also rated the teachers. Results of this study concluded that the implementation of this program had very positive short-term effects. There was an increase in teacher praise during the course of the treatment phase; however, a slow decrease in exhibition of praise was noted during the maintenance phase. The authors speculated that increased praise might have continued to occur during the maintenance phase if the treatment was of longer duration and the time that each teacher tracked his/her praise responses were longer.

Another area studied extensively in this review, was the necessity of including in EBD students’ curriculum, a social skills element, as this area is seriously underdeveloped in many EBD students. A myriad of available social skills programs designed to be implemented with EBD students is available. The questions asked remain: Are they effective? Do they improve EBD students’ social skills over a long-term period? Can these youngsters generalize the social skills learned to other settings outside their
self-contained controlled EBD classroom environments? Meadows et al. (1996) developed an informal, social skills training model entitled, *The Social Task Model*. In this program, EBD students were taught to self-manage their behaviors. Creative, challenging, and motivating activities were combined with basic curriculum. As a result, the EBD students’ educational, behavioral and overall social skill development improved.

Quinn et al. (1999) conducted a meta-analytical study analyzing the effectiveness of 35 different social skill intervention programs that were implemented with EBD students. According to Quinn et al., results from this quantitative research study suggested that “Social skill interventions, when used alone in small group settings, were not very effective in increasing the social competence of students with EBD” (p. 54). The authors believed that social skills programs that were infused throughout the EBD students’ school day and even beyond the school door yielded greater, more positive, long-term outcomes. Walker et al. (1995) and Quinn et al. agreed, indicating that social skill training may be more effective if integrated across the school curriculum, on the playground and at home. The concept of infusing school-wide social skills training programs across the school curriculum was appealing and consequently the focus of numerous research studies. The Success4 Initiative as described by Hendrickson, Gable, Conroy, Fox, and Smith (1999) was an example of a proactive holistic behavior intervention program for dealing with students with severe behaviors in the school environment. The program’s goal was to foster social-emotional, behavioral and academic growth in students. The program contained three essential components: (a) collaborative partnerships between families and school; (b) training and resources to develop programs designed to enhance social-emotional, behavioral, and intellectual growth; and (c) establish community stakeholder involvement. The initial results of this
program yielded favorable results.

In another meta analytical 12-year research study conducted by Johnson and Johnson (2000), 17 studies incorporating the social skill conflict resolution program *Teaching Students to be Peacemakers* were implemented and studied to determine long-term program effectiveness with students in kindergarten through ninth grade. The authors concurred with previous studies indicating that there appears to be a lack of positive outcomes for social skills programs implemented in small isolated settings for short time periods. The authors noted that most studies focused on effectiveness of individual short-term social skills programs with specific student populations. In this longitudinal study, many diverse school populations were studied in both urban and suburban areas. Also, a variety of age groups were represented. The study conducted by Johnson and Johnson reported the following:

The findings indicate that students learn the conflict resolution procedures taught, retain their knowledge throughout the school year, apply the conflict resolution procedures to actual conflicts, transfer the procedures to non-classroom and non-school settings, use the procedures similarly in family and school settings, and, when given the option, engage in problem-solving rather than win-lose negotiations. The results further demonstrate that conflict resolution procedures can be taught in a way that increases academic achievement and that the adults in the school perceive the conflict resolution program to be constructive and helpful. (p. 1)

Payton et al. (2000) noted the following to assist educators in selecting quality programs. “CASEL has developed a framework of key SEL competencies (skills, attitudes, and values essential to the social and emotional development of young people) and identified program features critical to the effective enhancement of these competencies” (p. 181). CASEL’s SEL framework is based on theory and is research based. It has been demonstrated as an effective framework for assisting today’s schools in identifying prevention programs with quality components necessary for successful
promotion.

Another widely accepted social skill strategy implemented in many EBD classrooms is Cooperative Learning. According to a study conducted by Cartledge and Cochran (1993), it was determined that cooperative learning behaviors such as social modeling and behavior rehearsal taught through a direct instruction format can be taught to behaviorally disordered youth. Cartledge and Cochran cautioned, “In programming cooperative environments, teachers need to provide explicit and provide systematic instruction on desired cooperative behaviors” (p. 8).

As mentioned previously, EBD classrooms must be rich in implementation of positive reinforcement intervention strategies. Musser et al. (2001) conducted a unique multi-method program designed to meet the behavioral needs of intermediate aged Severely Emotionally Disturbed (SED) children. In this controlled study, a precision request program was used in conjunction with mystery motivators and a token response cost economy behavior management system. The classroom rules were clearly visible to the three students. They were taped to their desks. Each rule could be measured in behavioral terms. The teacher constantly rotated among each student in the classroom. The program provided training to the teacher on how to interact with the students. The teacher was taught to use a quiet, calm even tone when interacting with the SED students and was asked to say “please” before each directive. In addition, it was indicated that speaking in close proximity to the student was imperative. The teacher was also trained on how to implement the reward mystery motivator token economy system as well as the response cost system. The SED students were rated on half-hour increments of time. During each of the nine blocks of time, each student could earn one sticker. Eight stickers could be traded in for a mystery motivator that was written on a sheet of paper and sealed
in an envelope. A student could lose a sticker for not complying with an adult directive within a certain period of time. Musser et al. concluded, “The results of this study suggest that a multi-component intervention incorporating precision requests, mystery motivators, token economy and response cost, and antecedent strategies may be useful as a classroom-based intervention for reducing disruptive behaviors in students with emotional and behavioral disorders” (p. 294). The incidents of noncompliant behaviors of the three SED students were reduced significantly as a result of participation in this study. The three control students’ noncompliant behaviors remained consistent. Their behavior did not improve.

Farrell, Smith, and Brownell (1998) conducted another study on Behavioral Level System effectiveness as level systems are widely used in addressing behavior modification in many EBD classrooms. Over 200 EBD teachers were surveyed and provided overwhelming support in favor of Behavior Level System effectiveness however, the authors caution that there is little empirical research data demonstrating level system effectiveness. In fact, some research indicated that it is difficult for EBD students to be weaned off the level system. Furthermore, they demonstrated difficulty when reentering mainstreamed environments. The students got used to the structure of the behavior level system and the consistent application of token reinforcements and privileges.

It has become clear that a vast array of BIPs exist. The task has become to choose and implement social skill programs and behavioral strategies proven effective with EBD students through sound research studies. Research has clearly demonstrated the importance of choosing strategies that foster positive learning environments and reinforces academic, behavioral and social skill development in students with EBD.
Change. The Amendments of 1997 to IDEA mandated that school districts change their disciplinary procedures and practices in order to comply with the law (Goff, 1998). The disciplinary measures outlined in the 1997 amendments to IDEA require the use of FBAs to assist behaviorally challenged students in danger of being removed from a FAPE for missing more than 10 cumulative school days in a given year (Friend et al., 1998).

Functional Behavioral Assessments and subsequent Behavior Intervention Plans are currently being conducted haphazardly in a last ditch effort to be in compliance with the law (Conroy, Clark, et al., 2000). The 1997 Reauthorization of IDEA had good intentions when it was enacted, however, as more literature on effective processes and FBA applications for use with EBD students emerge, school systems must implement these best practice ideas and knowledge so that EBD students can reap the benefits. The complexity of the FBA process was revealed through numerous research-based studies. It has been proven that, if done carefully and thoughtfully, EBD students and other behaviorally challenged students with disabilities may meet with educational success instead of failure as a result. A critical question that often emerged was, how we go about changing the current direction of FBA/BIP training and implementation practices for the better.

When designing plans for enacting lasting positive change, many educators have looked to great change-agent pioneers such as Senge, Bennis, Kotter, and Fullan. Senge (1994) believed strongly that, in order to make positive changes in an organization, we must stop the thinking pattern that the world is composed of a bunch of unrelated separate forces and go forward. Senge indicated:

When we give up this illusion--we can then build "learning organizations," where
people continually expand their capacity to create the results they truly desire, where new and expansive patterns of thinking are nurtured, where collective aspiration is set free, and where people are continually learning how to learn together. (p. 3)

Senge (1995) presented exciting principles, tools and methodology ideas for use in education today. His ideas about implementing team learning and planning at all levels of the educational institution are excellent. Creating an environment in which teachers and students learn and develop critical thinking skills is fundamental in education today. Allowing students and teachers the time necessary to use and develop their creativeness in a positive manner is a necessary component to greater teacher and student enthusiasm. Simultaneously, it also fosters higher student achievement. Senge speaks about creating an educational climate where a shared vision is developed and nurtured. Bennis and Goldsmith (1997) concurred with Senge, asserting, “If you want to lead people, the first thing to do is to get them to buy into shared objectives” (p. 5).

Kotter (1996), another esteemed change leader, proposed a similar plan for enacting change. Through an eight-step change process, he outlined in detail how to effectively lead an organization through a successful transformation process to meet the organizational leadership demands of the 21st century. Kotter noted that there are eight basic reasons that can be attributed to why organizations fail to make positive changes. Specific consequences will arise as a result of these eight common errors. The first error has to do with leaders allowing too much complacency. Leaders don’t realize how hard it is to pull people out of their comfort zones. They neglect to convey the message of urgency to the people. People won’t go the extra mile if they do not feel it is really important. The second error is that leaders often fail to build a strong coalition within their organizations. People must work together as a team. The third error is that leaders
sometimes fail to develop a sensible vision for the organization. The fourth error arises when leaders fail to communicate effectively the vision of the organization. Error number five comes in to play when leaders allow obstacles to interfere with accomplishing their new vision. Leaders must convey the message that there are no roadblocks or obstacles that cannot be overcome. Error number six speaks about the importance of establishing short-term objectives. Change takes time. When certain benchmarks have been accomplished, the team should celebrate. Employees should be rewarded for mastery of short-term objectives along the way. Error seven arises when leaders of organizations announce victory prematurely. Establishing solid victory takes time, sometimes years. Regression in an organization can result from shouting victory too soon. The eighth error has to do with a leader’s failure to imbed the changes solidly into the organization’s culture. Another problem causing organization’s failure is when leaders act like managers.

Another educational change expert, Fullan (1993), reiterated the importance of the shared vision change philosophy of Senge, Bennis, and Kotter as fundamental to enacting positive change. Fullan stated, “I see four core capacities for building greater change capacity: personal vision building, inquiry, master, and collaboration” (p. 12). He believed that teachers are capable of producing powerful positive change. Fullan and Hargreaves (1996) referred to interactive professionalism as a prerequisite for fostering change in an educational system. These authors described the necessary elements of interactive professionalism as (a) Allowing teachers to be part of important decision making, especially when it came to their students, as they know their students best; (b) providing a supportive climate where colleagues help one another; (c) shared decision making to include critical reflection where all levels of educators speak about the purpose
and value of the curriculums being implemented throughout the school; (d) teacher commitment to the school’s shared vision and goals; and (e) teachers are key, as they have the most direct contact with the students and parents at the school.

In his most recent change book, Fullan (1999) analyzed in even more depth what it takes to enact positive, lasting change in the educational arena. He expressed the necessity for educators to develop practical theories of action. Even the most brilliant ideas take hard work to implement and accomplish successfully. Fullan put it forcefully: “Too often in education even the most exciting possibilities have fallen flat, leading to greater demoralization and cynicism” (p. 83). The celebrated change theories of Senge, Bennis, Kotter, and Fullan make sense and have many applications that have enabled this researcher to develop and enact new, exciting and successful FBA/BIP procedures with the school-based team housed at this researcher’s school setting. Certainly, an educational climate, rich in trust, team collaboration and shared visions, is an essential ingredient in the effort to foster long-lasting, prosperous change.

Directions and recommendations for future research. Many issues have affected, and will continue to affect, how EBD student programs are administered. Wood (2001) has had 40 years of experience working with EBD students and has indicated that although many great challenges have faced the programs servicing EBD student populations, inordinate progress has been made in how services are delivered to this unique group of youngsters.

Since the inception of IDEA 97, and its mandatory disciplinary requirements to conduct FBAs with behaviorally disordered IDEA-eligible students, very little empirically-based research has been completed on the procedures for conducting FBAs and subsequent BIPs especially with EBD students and regular education students with
significant social-emotional behavioral needs (Quinn, 2000). However, an abundance of literature demonstrating FBA validity and reliability for use with students with severe developmental delays in center-type environments has materialized over the past few decades. The question posed is even though some preliminary research has emerged recommending adoption of these strategies and procedures for use with behaviorally challenged youth in public school settings, it is yet to be determined if they are truly effective for use with EBD students. Careful consideration and planning must take place to insure that successful adoptions to current FBA policy and practices are put in place to meet the needs of students with EBD. Yell and Katsiyannis (2000) suggested that more research is needed to inform and guide FBA development and practice with EBD students. More empirically based research needs to be conducted on FBA/BIP best practices and procedures specific to the EBD student population. Gresham et al. (2001) agreed, indicating, “It is highly likely that future research will provide data showing the applicability of these procedures across a wide range of behaviors, settings, and students” (p. 170). This research feedback is crucial to development of quality FBA/BIP school training programs. As Quinn (2000) stated, school personnel are not adequately trained to implement FBAs adhering to the guidelines outlined in the IDEA ’97 mandate. Conducting quality FBAs is a time-consuming, rigorous process. Teams must be given quality training opportunities and adequate time to conduct the assessments in order to carry out the procedures successfully. Perhaps future studies should focus on developing computer-based FBA programs, as compiling FBA data can be a time-consuming process. This would also enable researchers to have access to a database to further test FBA protocol validity and reliability. After all, we do live in the age of technology. Fox and Conroy (2000) hoped that FBAs do not become just an attempt to meet legal
requirements, but instead are used to fill the need they were designed for, to assist school-based teams in selecting appropriate behavioral interventions.

**Summary, conclusion, and implications.** Students with EBD often display aggressive disruptive behaviors in the school environment. It has become evident that educators must develop specialized programs and behavior intervention plans to meet each child's individual needs. An abundance of research revealed a high incidence of post school failure once these youngsters leave the public school system without such interventions. Providing early BIPs for behaviorally at-risk young children was identified as one cogent solution to this growing dilemma. Research demonstrated that well designed early identification intervention programs proved to be effective in preventing long-term behavioral problems.

Since the inception of 1997 Reauthorization of IDEA, states have been forced to examine their disciplinary practices and procedures (Hatwig & Ruesch, 2000). FBAs have been thrust into the spotlight as they have been proven through numerous empirically based research studies to be a valid useful assessment procedure. Analysis of FBA data allows educators to determine the function of EBD students and other behaviorally challenged youth's display of problematic behaviors in the school environment (Dragsow, Bradley, & Shriner, 1999). Results from FBAs have proven to be essential to the development of effective BIP strategies. BIPs have been proven to be well organized, carefully thought out plans in which specific strategies and interventions are developed to meet a given EBD student's unique social-emotional, behavioral, and academic needs (Clair & Burr, 2000).

Unfortunately, after a review of numerous research articles, it has been determined that there is a relative lack of empirically based research to support specific
FBA/BIP procedures and practices to employ with the EBD student population. Furthermore, guidance in developing effective FBA/BIP training procedures was also found to be a prevailing need. Some preliminary research has emerged in this area as a result of the newest disciplinary mandates to proactively include FBA/BIP procedures with behaviorally challenged IDEA-eligible students.

This researcher developed a school-based FBA team to conduct FBAs and BIPs with 10 targeted EBD students who exhibited significant behavioral difficulties in their EBD classroom settings based on knowledge gained from reviewing related research-based FBA/BIP practices used with behaviorally challenged students. The FBA team was comprised of many professionals with a range of expertise in the area of EBD. This school-based team included the school psychologist, EBD family mental health counselor, ESE Specialist, speech clinician (whenever applicable), guidance counselor, three ESTABLISHED certified teachers, three trained EBD paraprofessionals, and the principal who also holds degrees in ESE. This researcher contacted Knoster (2000), a leader in the Instructional Support System of Pennsylvania, at the Pennsylvania Department of Education, as he authored a most inspiring journal article. In this article, an FBA assessment tool, the ILI was described in detail. This researcher implemented this ILI process as part of this applied dissertation implementation portion of study. The ILI is a team-planning approach that seeks to identify, analyze and address behaviorally challenged students’ problematic behaviors. The ILI framework described by Knoster “is conducive to supporting student-centered teams in schools in order to provide comprehensive behavior support” (p. 209). This approach was presented at the Tri-State Consortium on Positive Behavior Support, a federally funded OSEP project, and has been successfully implemented with hundreds of student-centered teams in a number of states.
Survey results of this framework approach were encouraging.

Current FBA/BIP practices conducted at this researcher’s school location are in need of improvement. The ILI provided a framework for positively changing FBA/BIP procedures now being implemented. As the coordinator of all Special Education programs, this researcher had the responsibility to ensure that each EBD student’s FBA and subsequent BIP be developed accurately, based on the newest state-of-the-art practices and procedures presented in the most up-to-date scholarly journals. Designing and implementing a new and innovative FBA team-based process for application with this EBD student population was the mission set forth by this researcher.

Many of the researched solution strategies demonstrated positive applications for use with the 10 EBD students, who were the target population of this researcher’s applied dissertation. Specially designed proactive school-based interventions implemented throughout the school environment have been proven in numerous empirically based studies to enhance positive behaviors across all school settings. Proactive behavioral strategies have been particularly proven as effective tools for use with EBD students. Specially designed proactive school-based behavioral strategies proven to be effective for use with EBD students were implemented within the three EBD classrooms at this researcher’s work location. In evaluating the research-based solution strategies for appropriateness, it has been determined that interventions for use with EBD students should be intensive, individualized, comprehensive and flexible. Furthermore, it was revealed as imperative that the students and their families be an integral part of the discussion, development and implementation of the individualized behavior intervention process.

One must be extremely cautious when interpreting and following disciplinary
requirements under IDEA '97. After all, IDEA is a federal mandate. The disciplinary provisions and amendments must be followed exactly by all school districts. Many ideas for how to procedurally adhere to the various disciplinary provisions were explored as part of this researcher’s review of literature. The section of the law concerned with FBAs was of particular interest. After careful review of the literature, this researcher gained a solid understanding of when FBAs should be conducted according to the Reauthorization of IDEA '97.

Ideas about linking FBAs for use with the specific EBD student population were explored. Ways of improving current FBA practices were gained by studying numerous research-based articles and technical assistance papers. The integral steps of the FBA process and components were exhausted in the literature review section of the applied dissertation. Many FBA interview strategies were employed, as this step is a critical piece of an effective FBA process. Interviewing the child, parent, and teacher are valuable tools for identifying key antecedents, behaviors and consequences that may influence an EBD child’s problem behavior. The ILI presented by Knoster (2000) was employed by this researcher as an effective team-based interview method for identifying, analyzing and finding solution strategies for EBD students’ challenging behaviors. Hypotheses, antecedent and consequence data collection logs have been proven through research to be extremely helpful when analyzing and determining the function of a given EBD student’s problematic behavior. According to a growing body of researchers including Horner and Carr (1997), OSEP (2000) and Taylor and Romanczyk (1994) it has been determined that one possible powerful antecedent or setting event that may influence an EBD student’s exhibition of negative behavior is teacher attention. This was the focus of many of the informal and formal observations conducted by this researcher and colleagues. Both
informal and formal FBA observations allow educators and other professionals to accurately analyze student behavior and effective interventions. This researcher utilized some of the various direct and indirect observational methods reviewed. The user-friendly observation protocols presented by Fox et al. (2000) were also appealing.

There was an abundance of literature demonstrating the benefits of conducting quality BIPs based on best research-based practices. BIPs have been proven as effective plans for reducing disruptive behavior in EBD students. As outlined in IDEA '97, BIP strategies must be developed and implemented with Special Education students whose behaviors are interfering with their learning.

This researcher developed and implemented BIPs with 10 targeted EBD students who were demonstrating severely aggressive or disruptive behaviors that were interfering with their learning and the classroom environment of their peers. Many specific ideas such as the TEAM approach and holistic approach to developing behavioral treatment interventions were explored as part of this researcher's literature review. BIP solution strategies such as these served as valuable implementation strategies. Other noteworthy strategies researched included proactive behavioral strategies, curriculum and instructional modifications, self-management skills, replacement skills and crisis management techniques.

FBA staff development and training was needed at this researcher's work location. It was vital that better standards for FBA/BIP training on implementation for use with EBD students be pursued. FBA training exercises to build content and knowledge were developed and implemented with the staff as part of this researcher's applied dissertation.

Change theorists such as Senge, Kotter, Bennis, Goldsmith, and Fullan had much
to offer as this researcher developed this applied dissertation program. Enacting positive lasting change in the school environment took careful planning and time. This researcher incited teachers, support staff and administrators to form the decision-making FBA team that was the backbone of this researcher’s applied dissertation study. When teachers, key support staff professionals, parents and administrators are part of the shared vision and goals, successful changes for the better have proven to be the result. The change theories of Senge, Bennis, Goldsmith, Kotter and Fullan made sense to this researcher and provided many applications that enhanced the development of a successful FBA/BIP school-based team.

The recent disciplinary provisions outlined in the most recent federal mandates, Reauthorization of IDEA ’97, demonstrated that further research on best practices for implementing the FBA/BIP process with the EBD student population was needed (Olympia et al., 2002). This researcher exhausted current literature in this area, as this was the focus of this applied dissertation. Education and training on FBA/BIP strategies that have been proven as effective tools and interventions for use with students with EBD was demonstrated through review of numerous scholarly journals. Well-developed FBA/BIP training models, rich in effective intervention strategies, FBA data collection methods and quality implementation of BIPs specially designed to enhance EBD students’ behavioral, academic and social success are needed. As a result of researching a vast array of FBA/BIP solution strategies, it became evident that EBD students’ behaviors improve as a direct result of implementation of quality FBA/BIPs. Effective training of school personnel is paramount to implementation of quality FBA/BIPs.

*Description of Selected Solutions*

Every 7 years, IDEA laws are reviewed federally. Results from court case
disputes cause new provisions and amendments to be enacted into the law. This researcher attended a District conference entitled, "What's New in Special Education Law and How Do We Stay Out of Trouble" in October 2002. The presenter of *The 1997 IDEA and the Regulations: An Update, Recent Cases and Avoiding Legal Disputes* (Weatherly, 2002), attorney and founder of the Weatherly Law Firm, owns Resolutions in Special Education (RISE), a consulting business. The RISE agency is designed to govern educational institutions in an effort to avoid special education disputes. Weatherly gave a dynamic presentation to all our Exceptional Education Specialists, District Special Education Leaders and all principals in this researcher's county. For 16 years, she has consulted with and represented school systems and other educational agencies across the country to enhance their efforts to comply with IDEA and Section 504. In June 1996, she appeared on *60 Minutes* to discuss the cost of meeting the legal requirements of IDEA. In 1998, Weatherly was voted the "Individual Who Had Contributed Most to Children With Disabilities" by Georgia's Council for Exceptional Children.

This researcher sought to coordinate professional development and teacher training programs to train EBD teachers on how to conduct various components of FBAs and how to implement various BIP strategies for use with the targeted EBD youngsters. Specific journal articles, such as Schiter et al.'s (2000), and literature received from the Weatherly (2002) educational conference were selected to be reflected on and discussed as part of this researcher's applied dissertation training module. In addition, specific teaching strategies such as the role of teacher interaction in student exhibition and problematic behaviors presented by Gunter, Reed, Fox, and Conroy (2000) as well as quantitative research findings about the effectiveness of social skills training programs for use with EBD students (Quinn et al., 1999) were selected as noteworthy articles to be
presented in subsequent training sessions. The functional communication training
presented by Reichle and Wacker (1993) was also chosen. A strategy presented by Farrell
et al. (1998) on behavioral level system effectiveness for use with EBD students was
selected to be highlighted as an applicable training discussion as a behavioral level
system is currently in place and implemented with the EBD student population at this
school location. The role of self-evaluation in teaching behavior in EBD classrooms was
also chosen as a vital training item because EBD teachers may not necessarily be
cognizant of how their teaching style and interactions can negatively or positively
influence student behavior. Meadows et al. (1996) explored applications for behavior
management as a curriculum for EBD students. The positive impact that appropriate
praise by teachers, when used with EBD students, was a behavior management strategy
that was targeted to be used with great emphasis. It goes without saying that
modifications of curriculum and instructional materials both enhance and promote
behavioral success for EBD students (Gunter et al., 2000). These specific topics are
noteworthy training concepts and were included as part of this researcher's applied
dissertation training module as well.

Constructing quality BIPs was also a topic of discussion at training sessions
conducted by this researcher. Implementing quality BIPs based on data gathered during
individual FBAs was emphasized as a crucial component. One strategy, implementation
of frequent praise by teachers of EBD students, was targeted as an acclaimed teaching
practice that significantly increased EBD students' exhibition of positive behaviors
(Sutherland, 2000). Another behavior intervention entitled the precision request, token
economy, response cost antecedent strategy presented by Musser et al. (2001) offered
intriguing ideas for behavioral interventions that could be incorporated into the targeted
EBD students’ BIPs. Gunter et al. (2000) emphasized the necessity of incorporating modifications to curriculum and use of instructional materials when developing BIPs. These topics were identified and incorporated in the final phase of this researcher’s training portion of the project.

Report of Action Taken

In the 1st month of implementation of this project, this researcher sequentially divided carefully selected literature highlighted in the description of the Selected Solutions section into specially designed FBA/BIP training manuals. Targeted school personnel were selected to comprise the FBA/BIP training team. Selected professionals included three EBD teachers, three EBD paraprofessionals, the family counselor, school psychologist, guidance counselor and principal, along with the speech clinician when applicable. During the latter part of the 1st month, selected school personnel were given consent forms to enlist participation in this researcher’s project. The training team participated in an orientation overview introduction of FBA requirements under IDEA ’97. Research articles on when FBAs should be conducted according to law were distributed and reviewed at the first team meeting. The remainder of the 1st month was dedicated to reviewing professional journal articles that explained steps of the FBA process, FBA components such as interview strategies, and FBA observation strategies. The 2nd month of implementation was devoted to training sessions that included FBA/BIP strategy discussion, teacher and student modeling, brainstorming discussions on research-based FBA/BIP best practices, individual case studies involving antecedent-behavior-consequence discussions, best practices on formulation of possible hypothesis statements and feedback on applications involving individual program implementation. The school psychologist also provided a training session on observational techniques and
the valuable information BASC rating scales provide in the assessment process.

Literature discussing the importance of establishing FBA school-based teams who work collaboratively was a key concept emphasized at the beginning of the 3rd month of this researcher's FBA/BIP professional training project. During the 2nd week of the 3rd month of the FBA/BIP training module, the training team that consisted of 12 professionals participated in a FBA Team Interview Strategy developed by Knoster (2000), the ILI. This FBA team interview approach is a screening tool used for understanding students' problem behaviors. Applications for how the ILI screening strategy could be beneficial as a valuable FBA tool to assist in development of FBA/BIPs for each of the 10 targeted EBD students identified as part of this researcher's project were discussed at length. This particular FBA component provided an innovative addition and a positive change to FBA implementation in this researcher's county and particularly in this researcher's work setting. Simultaneously, articles published by the OSEP, as well as other scholarly journals pertaining to how FBAs can be used to develop individualized BIPs, were explored by members of the training team. Additionally, team members were in-serviced by this researcher on how to use FBA data to effectively write BIPs for EBD students.

At each training session during the first, second, and third implementation process of this applied dissertation project, training strategies included breaking team members into cooperative learning groups of three and four persons. Members brainstormed for approximately 30 to 45 minutes about selected journal article contents and applications of selected strategies for implementation. Together, weekly team notes were transcribed on chart paper facilitated by team captains and recorders. This researcher subsequently outlined the main ideas contributed by each group on 5x7 chart tablets. A journal log of
ideas was compiled each week as the training project was undertaken. Some journal log entries included new innovative FBA data collection strategies such as interview strategies, research-based informal and formal observation methods, A-B-C data collection methods, and scatter-plot graphing technique implementation ideas derived from literature reviewed at the training sessions.

Components of effective BIPs and selective research-based effective intervention strategies for use with EBD students were the focus and topic discussed during the latter weeks of the 3rd month of this applied dissertation training phase of this researcher's project. Simultaneously, meetings were held with each of the 10 targeted EBD students' parents to discuss their child's behavioral concerns. The need for a FBA to hypothesis why their child was engaging in aggressive and/or noncompliant behaviors was also discussed at length. Consents for parent participation as well as consents from each parent to allow their child to participate in this researcher's applied dissertation project was obtained in writing from each of the targeted EBD student's parents by the end of the 3rd month. Two Child Assent forms were acquired as well. Concurrently, FBA data were collected on each of the 10 EBD students at various time intervals and settings using a variety of data collection methods and technology of the FBA/BIP training team. FBA data continued to be collected on each of the 10 targeted EBD students using such protocols as A-B-C data observations and On-Off task data samples. Scatter-plot graphs that were rated on a minimum of 30-minute time intervals throughout each school day for at least a 6-week period, were also used.

In the 1st and 2nd week of the 4th month, 7 of the 10 ILI FBA team interview meetings were scheduled and held. By the end of the 3rd week of the 4th month, the remaining three ILI FBA team interviews were conducted. At least one parent
(sometimes both parents) attended each of the ILI FBA team interviews that lasted in
duration from 60 to 75 minutes each. Having parents participate as part of this process
was crucial and extremely beneficial as demonstrated by positive feedback from EBD
teachers, school psychologist, school guidance counselor, family counselor, speech
pathologist (for EBD students who received speech and language as part of their IEP),
and each parent. Concurrently, during the 3rd and 4th weeks of the 4th month of
implementation of this project, meetings with the FBA/BIP team (the EBD child's teacher
and parents, paraprofessional, school psychologist and/or guidance counselor, family
counselor, ESE Specialist and speech clinician when applicable) were held. The meetings
included discussion of the results of all the FBA data (A-B-C observations, scatter-plots,
county FBA interviews, ILI FBA team interview data and other record review data, for
example, psychological evaluations, Individual Education Plans, etc.). Data were
collected and analyzed by the team and development of effective BIPs for the 10 targeted
students discussed above were created. Hypothesis statements and target behaviors were
identified in order to select and develop proactive strategies, replacement skill strategies
and effective consequence strategies for each student.

At the beginning of the 5th month, the 10 targeted EBD students' FBA/BIP
meetings were held with appropriate FBA/BIP team members of the training team
including each EBD student’s parent. This ensured that all the 10 targeted EBD students
had a BIP in place prior to the end of the 5th month implementation phase of this
researcher's applied dissertation project.

At the onset of the 6th month of implementation, a FBA/BIP team meeting was
conducted to share monitor log strategies with the EBD teachers and other direct service
personnel. Team members shared data collection results and were trained how to enter
these results on the monitor logs. They also brainstormed possible use of additional data collection methods that could serve as useful supplemental FBA data collection tools to each individual student's current behavioral assessment. This researcher continued to serve as a consultant to the FBA training team and conducted observations and feedback on individual team member's methods of data collection and procedures. During the 2nd week of the 6th month, FBA data continued to be gathered by each student's teacher of EBD, the EBD paraprofessional, the school psychologist, family counselor and this researcher. The 3rd and 4th weeks of the 6th month implementation phase were dedicated to FBA team meetings facilitated by this researcher. The FBA team (EBD teacher, EBD paraprofessional, family counselor, school psychologist, speech clinician [when applicable] and this researcher) conducted 10 separate meetings with each of the 10 targeted EBD student's parent(s) to discuss the results of each student's FBA. At each of the meetings, the parents were encouraged to review FBA data results and to be part of developing their child's FBA/BIP (see Appendix L). Development of each child's BIP included identification of a target behavior, hypothesis statement, setting event and antecedent predictors as well as goals for intervention. In addition detailed descriptions of interventions such as proactive strategies, replacement skills and consequence strategies were developed to meet each identified student's unique behavioral needs. A description and discussion of how the interventions were to be implemented across time, people and settings were also included in each EBD student's written behavior plan. Each plan also included a description of maintenance strategies, crisis management strategies and evaluation procedures for evaluating the effectiveness of each student's behavioral interventions and maintenance of the plans. Each FBA/BIP team member's responsibilities, in relation to each BIP, were discussed and reviewed in detail.
At the inception of the 7th month of implementation, individual EBD student FBA team meetings were scheduled and convened throughout this month on average of one meeting every other day for students one through 10 targeted for participation in this study. Simultaneously, daily data continued to be collected, analyzed and reviewed at weekly FBA/BIP team meetings. Individual EBD student's behaviors were discussed and the success or lack of success of the behavioral interventions contained in their BIP were reviewed and modified or revised as necessary. Each EBD student's behavior was tracked using individual daily point sheets and written daily anecdotal records. Professional crisis management (PCM) logs and time-out logs were also used daily to track aggressive and disruptive behaviors for each study participant. EBD student behaviors were documented on 1/2-hour increments of time throughout the school day using scatter-plot graphs. Student behavioral progress was also tracked daily on a master behavioral level system graph plotted daily by this researcher.

During the 8th month of implementation, crisis team meetings were conducted twice a week. The results and effectiveness of the 10 targeted EBD student's BIPs were the focus of these team meetings. Individual Behavior Plans were revised and modified based on data analysis as necessary to ensure individual EBD student progress and success. The use of a PCM tool to document crisis intervention strategies, or internal/external timeouts were carefully tracked by this researcher, for each student's progress. EBD students' positive and negative behaviors were tracked, on 1/2-hour intervals of time, using scatter-plot graphs as well as individual student point sheets and anecdotal behavioral record logs. Data were collected throughout this month on each targeted student until the last day of the school year that occurred on June 12, 2003. During the last week of this implementation month, this researcher and the family
counselor interviewed each of the 10 targeted EBD students using a qualitative open-ended post student questionnaire. Each interview was conducted individually to ensure confidentiality. The interviews were orally administered in this researcher’s office. Students were encouraged to speak freely about their behavioral progress. This questionnaire was designed to elicit responses that would provide individual feedback into student perceptions about their progress. Simultaneously, each targeted student was given a post-EBD student Likert scale survey consisting of 10 questions. Each survey was orally read to the student. In addition, the 12 training team members were administered a postschool personnel Likert scale survey to obtain input concerning the effectiveness of this researcher's applied dissertation project. Concurrently, the three teachers of EBD and each parent were given post-BASC rating scales to fill out on their EBD children who participated in this project. The BASC rating scales were administered and collected at the completion of the student implementation period during the last 2 days of the 2002-2003 calendar school year.

Toward the latter part of the 8th month of implementation of the applied dissertation, the final statistical analysis quantitative reports were executed using SPSS. Quantitative measures used to assess included the 10 EBD students' Likert scale surveys, school personnel Likert scale surveys and individual EBD student progress Likert scale surveys. Each EBD student's teacher, paraprofessional and the family counselor filled out one EBD student progress Likert scale survey for each of the 10 targeted EBD students. Two weeks after the 8-month implementation period, the school psychologist, family counselor, and this researcher met in a small group forum and collaboratively analyzed each EBD student's preliminary and ending parent and teacher BASC rating scale response outcomes (behavioral profiles). The open-ended EBD student final
questionnaires were analyzed in the same manner by the same identified group of professionals. Final PCM logs and external time-out log compilation data reports indicating the number of aggressive and/or disruptive behavioral outbursts were generated. Individual point sheets documenting the frequency of aggressive/disruptive behaviors were compiled from data input into a database created by this researcher.
Chapter 5: Results

The problem identified for the purpose of this applied dissertation was as follows: Elementary-age EBD students, kindergarten through fifth grade, displayed physically aggressive and disruptive behaviors in the public school setting. The 10 targeted EBD students at this researcher's school site exhibited frequent bouts of aggressive and disruptive behaviors such as kicking, hitting, pushing, running away, throwing objects, verbal abuse (threats) and self-injurious behaviors such as head banging, banging on objects or putting non-food items in their mouth.

Solution strategies espoused as intervention tools designed to promote positive behaviors for the 10 targeted EBD students participating in this study included professional FBA/BIP training modules, ILI FBA team interviews and execution of a variety of FBA data gathering techniques. Implementation of quality individualized BIPs based on team analyses of FBA data were also used. Twelve school-based personnel were selected to comprise the FBA/BIP training team. A vast array of carefully selected literature based on research conducted by pioneers in the field of FBA was used to assist in the development and implementation training phase of this applied dissertation project. The 10-member FBA/BIP training team was educated on IDEA '97 laws and how this reauthorization relates and applies to FBA/BIP practices with Special Education students. Discussion of the steps of the FBA process, FBA components and specific FBA data gathering techniques followed as the focus of training team meetings. One FBA Team Interview strategy developed by Knoster (2000), the ILI, was emphasized and implemented for each of the 10 targeted students as literature underscored this method as a valuable FBA tool for understanding student's problematic behaviors. The school-based FBA/BIP team, the three EBD teachers, three EBD paraprofessionals, school psychologist, school guidance counselor, speech pathologist (for students receiving
speech or language therapy), and EBD family counselor analyzed the FBA data in order to develop effective BIPs for each of the 10 targeted EBD students. Meetings were held with each of the 10 targeted EBD student's parent(s) to discuss FBA findings and to critique the individual BIPs. Having parental participation was extremely beneficial in assisting in the development and implementation of each student's BIP. Each EBD student's plan was implemented during the last 9 weeks of the 2002/2003 school year. Ongoing behavioral data was recorded using FBA scatter-plot graphs and daily point sheets as well as daily anecdotal behavioral logs. Daily individual progress (improvement) was tracked for each targeted student using a database created by this researcher. Results for each EBD student's progress were plotted on individual case study single subject research Exploratory B Design graphs.

The goal of this researcher's applied dissertation was as follows: EBD students, kindergarten through fifth grade, display nonaggressive and nondisruptive behaviors in the school environment. The following outcomes were projected:

1. At the end of the implementation, 8 of the 10 EBD targeted students demonstrated a decrease in physically aggressive disruptive behaviors that included kicking, hitting, pushing, running away, throwing objects, verbal abuse (threats) and self-injurious behaviors such as head banging, banging on the desk, and attempting to eat nonfood items (e.g., staples) to no more than four aggressive behaviors per school week. These were measured by daily documented FBA data collection logs, Paired Samples T-Tests, database compilation reports and individual Exploratory B single subject research design graphs that were tracked over a 9-week period. This outcome was met.

Analysis of the Paired Samples T-Test, as shown in the table, illustrated that the aggressive behaviors demonstrated by the 10 targeted EBD students improved during the FBA and subsequent BIP. There was a marked decrease in the participants' incidents of
aggressive episodes. These results were found to be effective to a significance of .005. The probability that this happened by chance is slim. This probability was tested at a 95% confidence ratio, therefore, these results were statistically significant. The results demonstrate that there was a statistically significant decrease in the number of incidents of aggressive behaviors exhibited by the selected EBD student population when comparing preliminary and ending test scores collected during this study in the table.

Table

*Pretest and Posttest Mean Scores for Each Objective Measure*

<table>
<thead>
<tr>
<th>Measure</th>
<th>Pretest mean</th>
<th>Posttest mean</th>
<th>Significance (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>EBD students' incidents of aggressive behaviors</td>
<td>28.1000</td>
<td>6.6000</td>
<td>.005*</td>
</tr>
<tr>
<td>Professional EBD students' staff survey results</td>
<td>2.1133</td>
<td>3.0267</td>
<td>.000*</td>
</tr>
<tr>
<td>Survey results pertaining to staff perceptions About FBA/BIP efficacy</td>
<td>3.6222</td>
<td>3.5444</td>
<td>.348</td>
</tr>
<tr>
<td>Relationship of ILI screening tool to FBA/BIP development with EBD students</td>
<td>3.3167</td>
<td>3.6667</td>
<td>.001*</td>
</tr>
<tr>
<td>ILI professional survey staff results</td>
<td>3.3400</td>
<td>3.9800</td>
<td>.000*</td>
</tr>
<tr>
<td>Comparison of pretest and posttest parent BASC rating scale responses</td>
<td>68.2000</td>
<td>60.6000</td>
<td>.079</td>
</tr>
<tr>
<td>Comparison of pretest and posttest teacher BASC rating scale responses</td>
<td>78.2000</td>
<td>68.2000</td>
<td>.006</td>
</tr>
</tbody>
</table>

*Note. * = Significant at the <.001 level.*

Comparison of the total number of aggressive episodes exhibited by the 10 targeted EBD students prior to and after the 9-week periods further demonstrates a decrease in aggressive behaviors exhibited by the target population during the
implementation phase of the researcher's project (see Figures 1 and 2). Baseline data was collected in the fall, during the time period of September 2 through November 1, 2002. This aggressive incident baseline data was compared to aggressive incident data collected during the 9-week implementation phase of this researcher's applied dissertation. Results and analysis of the data collected clearly suggested that BIP strategies and interventions utilized during the implementation period assisted in the development of positive behavior for the 10 targeted EBD students.

![Bar chart showing comparison of total number of aggressive episodes between pretest and posttest phases.](attachment:image)

*Figure 1. Comparison of total number of aggressive incidents by the 10 targeted EBD students during the pretest (baseline) and posttest (implementation) phases.*

Aggressive episodes exhibited by the 10 targeted EBD students as a whole group decreased markedly during the 9-week implementation period of this applied dissertation study (see Figures 1 and 2). Reports created by this researcher's database on targeted Students 1 through 10 (see Appendixes M through V) break down the types of aggressive behaviors exhibited by each student with totals during the 9-week implementation period (September 2 through November 1, 2002) and during the 9-week FBA/BIP applied dissertation phase (April 7 through June 9, 2003). Aggressive behavior subcategories included kicking, hitting/pushing, throwing objects, self-injurious behaviors, eating nonfood items, and verbal abuse (threats). Also included at the bottom of each EBD
student's raw data report is a bar graph depicting breakdowns of specific behaviors exhibited during the preimplementation and postimplementation phases. The comparisons clearly portray each student's individual progress in the area of aggressive and disruptive behaviors. Results included in each report undeniably demonstrate that 10 out of 10 of the targeted students' individual behaviors improved during the 9-week behavior intervention plan time period. It is important to note, when analyzing the reports for each student, that the weekly chart entitled Aggressive Behaviors per Week per Student serves as the single subject Exploratory B Design Graph.

![Bar graph showing pretest and posttest behaviors]

Figure 2. Breakdown of specific aggressive behaviors displayed by the target population during the pre- and postimplementation periods.

2. At the end of the FBA/ BIP 9-week implementation period, final Likert scale EBD student surveys conducted with the family counselor, three EBD teachers and three EBD paraprofessionals at this school site documented a decrease in aggressive behavioral incidents by eight of 10 EBD targeted students. This outcome was met.

Statistical analyses were conducted using SPSS to determine whether changes in
the target population of students' aggressive behaviors were statistically significant as shown in the table. Likert scale survey responses of agree strongly, agree, disagree, and strongly disagree were given point values of 4, 3, 2 and 1 both before and after the survey. The greater the total point values, the more positive the response rating. High ratings given by school personnel indicated significant improvement in the 10 targeted EBD students' aggressive behaviors over the 9-week implementation period. According to the mean statistic score as shown in the table, the average person sampled through this survey for this objective agreed that the 10 subject EBD sample group exhibited less incidents of aggression during the 9-week FBA/BIP period as evidenced by comparison of the mean scores both before and after the implementation. Analysis of the Paired Samples Test indicates that the EBD professional staff's perceptions of aggression scores are statistically significant. Professional staff surveyed believed strongly that aggressive behaviors exhibited by the 10 targeted students decreased significantly during the implementation phase of this study. The score of .000 is significant to more than the .005 level. The possibility that this result happened by chance is extremely slim. This score suggests a very solid result.

3. At the end of the FBA/BIP 9-week implementation period, a comparison of before and after Likert scale surveys for EBD students conducted with the family counselor, three EBD teachers and three EBD paraprofessionals reflected an increased positive perception about the effectiveness of FBA data in assisting in the development of BIPs with EBD students. This outcome was not met.

Before-and-after Likert scale responses were again assigned a numeric point value: agree strongly = 4, agree = 3, disagree = 2, and disagree strongly = 1. The greater the number, the more positive the response rating of individuals surveyed. A Paired
Sample T-Test was executed using SPSS to determine if this outcome was met. There were no significant differences between the usefulness of FBA data before and after the creation of individual EBD student's BIPs. This was evidenced by the comparison of the FBA/BIP before and after mean scores as shown in the table. There is little to no discrepancy between these two statistical calculations. Furthermore, as demonstrated in the table, the 2-tailed Paired Sample T-Test score of .348 demonstrates that this result was not statistically significant. This researcher could not reject the null in this case. The participants' tallied responses to this categorical area of questioning did not reflect a positive feeling that the individual EBD students Functional Behavioral Assessments and subsequent BIPs were significant in influencing the 10 targeted students improved behavioral performances.

4. At the end of the FBA/BIP 9-week implementation period, a comparison of Likert scale EBD student surveys conducted prior to and after the study with the family counselor, three EBD teachers and three EBD paraprofessionals and a comparison of school personnel Likert scale surveys conducted with the school psychologist, speech clinician, three EBD teachers, three EBD paraprofessionals and family counselor reflected a positive perception about the use of the ILI (Knoster, 2000) as a valuable FBA screening tool for identifying patterns of behaviors for use in developing effective behavior intervention plan strategies for EBD students. This outcome was met.

Preliminary and ending Likert scale survey results were entered into SPSS to determine if staff perceptions about the usefulness of the ILI FBA screening method were positive. Analysis of the Paired Samples Test indicates that the scores are statistically significant at the .001 level of measurement. Analysis of targeted professional participant's survey responses clearly reflected a positive feeling about the use of the ILI
FBA team screening tool as being a significantly effective process for identifying useful proactive strategies, replacement skills, interventions, and consequence strategies to be implemented in each student's BIP. Results of other Likert scale surveys conducted with the school psychologist, speech clinician, three EBD teachers, three EBD paraprofessionals and the family counselor using the same four-point rating scale yielded positive results as well. Paired sample statistic mean comparison scores, as shown in the table, clearly reflected a positive difference between mean pretest and posttest scores. These results were tested at a 95% Confidence Interval of difference, therefore, these results were statistically significant. Analysis of Paired Samples Test results indicates that the scores are statistically significant at the .000 level of measurement.

5. The number of aggressive incidents requiring PCM restraint techniques decreased to no more than two restraints during the last 4 weeks of the 9-week implementation phase as indicated by the PCM log compilation data report. This outcome was met.

Comparison of preliminary (baseline) 9-week period PCM log compilation report data and data compiled during the 9-week FBA/BIP implementation period clearly demonstrates that PCM restraint techniques decreased to no more than two restraints during the last 4 weeks of this researcher's FBA/BIP implementation period (see Appendixes M through V). Overall incidents of aggressive behaviors exhibited by the targeted EBD students requiring PCM restraints decreased significantly as shown in Figure 3.

6. During the implementation phase of this project, the 10 targeted EBD students required no more than six external time-outs in a 9-week period as recorded in the external time-out log compilation data report. This outcome was met.
Figure 3. Comparison of the total number of PCM and external timeouts for target population before and after implementation.

Comparison of preliminary (baseline) 9-week period, external timeout log, compilation report data and data gathered during the 9-week FBA/BIP implementation period clearly demonstrates that the need for external timeouts decreased to less than six times in the 9-week FBA/BIP implementation period of this researcher's applied dissertation project (see Figure 3). A bar graph was created using preliminary and ending data of incidents of PCM and External Timeouts for the 10 targeted EBD students. Data collected clearly demonstrate a substantial decrease in incidents of PCM restraints and External Timeouts after the 9-week implementation period. Before the implementation phase (September 2 through November 1, 2002), EBD students required a total of 14 PCM restraint techniques as opposed to only 3 PCM restraint procedures needed after the implementation phase (April 7 through June 9, 2003). The incidence of External Timeouts dropped significantly after the implementation period. After the implementation phase, External Timeouts dropped from 98 to only 7. The data collected on the number of incidents of PCM restraint techniques and External Timeouts during the implementation time period (see Figure 3) demonstrated a significant decrease in the necessity for use of these consequence strategies and restraint techniques with the target
EBD student population who were the focus of this applied dissertation. The results were substantial in this researcher's estimation. They strongly suggest that the behavioral interventions contained in each student's BIP, as a result of FBA data collected during this study, assisted in the significant decrease in external timeouts as well as the necessity for physical restraint techniques during the BIP implementation portion of the study in this researcher's applied dissertation project. The relationship between behavioral interventions and the decrease in external timeouts and physical restraint techniques, while suggestive of a correlation, do not necessarily stem from causation.

Results of BASC before-and-after rating scales conducted by parents and teachers were also used to evaluate individual student progress. This researcher consulted with the school psychologist and family counselor to investigate the best method for analyzing EBD student progress using these scales. Professional group consensus agreed that comparison of these scales (parent and teacher) externalizing problems T-scores should be statistically analyzed using SPSS. Externalizing problem scales and their ranges include the following areas: hyperactivity, aggression, and conduct problems. Unfortunately, this would not allow for analysis of an individual student's progress as all 10 students' before-and-after parent and teacher scores were entered into SPSS. This only allowed for a whole-group comparison score for preliminary and final periods. However, a breakdown of individual parent and teacher externalizing T-score responses for the before-and-after implementation time periods is included. According to the teachers, all students with the exception of Students 2 and 9 improved in externalizing behaviors. According to the parents' comparison of individual BASC before-and-after responses, 7 out of the 10 EBD students improved. Student 9's parent reported the same externalizing score, and Student 2's parent reported an increase in his final externalizing score.
The criteria used to analyze each student's externalizing T-score ratings were obtained from the BASC assessment manual as determined by the BASC authors. The school psychologist indicated that T-scores above 70 are significant, T-scores between 60-69 are borderline, and T-scores between 40-59 are considered average. The family counselor, school psychologist, and this researcher consulted, analyzed, and examined the parent ratings and teacher ratings for each of the 10 targeted student's externalizing behavior scores. Analysis involved looking carefully at students whose scores fell into the significant range using the criteria outlined by this researcher's school psychologist.

According to the teachers' external ratings, Students 1, 5, 6, 7, 8, and 10 T-scores moved from the significant range during the preimplementation period to the borderline and average range during the postimplementation period. This would seem to indicate significant change in the actual behavior of these students in the classroom setting. In contrast, only the parents of Students 1 and 2 reported that their children moved from the significant range to the borderline/average range during the implementation phase. This would seem to correlate with the literature previously discussed that points out a discrepancy between parent and teacher ratings of any given student's behavior.

Analysis of group parent T-scores using SPSS demonstrated no statistical significance between Mean pretest and posttest scores. Furthermore, the Paired Samples T-Test (2-tailed) score of .079 confirms that this result was not statistically significant. This researcher is unable to reject the null hypothesis in this case.

The teachers' ratings of externalizing T-scores yielded a different result, however, it was still not statistically significant. The paired samples T-Test below demonstrates that there was a difference between the pretest mean score when compared to the posttest score. The teacher rating scale responses indicated improvement in students'
externalizing behaviors during the posttest phase of this applied dissertation. However, the paired sample T-Test (2-tailed) score of .006 confirms that this result was not statistically significant. This researcher was not able to reject the null hypothesis in this case.

The results of the EBD Student Posttest Questionnaires and Likert Scale Surveys revealed many common themes among the 10 EBD student participants. All students appeared to have learned valuable strategies for how to cope with their feelings when they are upset, angry or frustrated. Student 1 indicated that he talks to someone about what's bothering him when he's upset, angry, or frustrated. Student 2 stated that he goes outside to get away from the upsetting situation or counts to 10. Student 3 asks to speak specifically to the family counselor. Student 4 responded by stating, “I will ask if I can come to [this researcher's] office to cool down.” In contrast, Student 5 prefers to ignore the situation. Student 6 indicated that she uses relaxation techniques such as taking a deep breath or counting to 10, and Student 7 stated that he walks away. Student 8 indicated that he attempts to “do the right thing” and change his behavior when he is upset, angry, or frustrated. Similarly, Student 9 responded by stating that he attempts to change his behavior and begin following directions when he is faced with a negative situation. Student 10 indicated that he just walks away and sometimes covers his ears. When the students were surveyed about strategies they utilized to help them calm down, their responses included to talk it out, use “my time away pass,” watch TV, count to 10, take deep breaths, put their heads down, or change to a different activity. When the 10 participants were asked if they felt their behavior had improved over the 9-week implementation project, 10 of 10 indicated that their behavior had indeed improved.

The family counselor who worked closely with each student participant indicated
that he believes “each student has learned useful strategies to successfully deescalate when highly agitated or angry.” The counselor also stated that the participants appear to have a good perception about the reality of their behaviors and indicated that overall each student’s self-esteem had improved.

The results as a whole appear to yield promising results. This researcher was able to meet all but one of the six outcome objectives. Therefore, it has been concluded that the results and findings of this study are consistent with one another. The goal set out by this researcher was as follows: EBD students in Grades K-5 will decrease incidents of physically aggressive and disruptive behaviors in the school environment. This goal was achieved in this researcher's estimation. In all outcome objectives dealing with EBD student aggression, 10 of 10 targeted students exhibited a decrease in their incidents of aggressive behaviors in the public school setting (see Appendixes M through V). As a matter of fact, in 5 of the 10 individual student cases, there was a significant decrease in aggressive episodes when comparing the before-and-after totals of incidents of aggression scores. For instance, Student 1 displayed incidents of aggressive behaviors 23 times during the first part of the implementation (September 2 through November 11, 2002) and reduced the incidents of aggressive behaviors to only 4 during the final 9-week FBA/BIP implementation period (April 7 through June 9, 2003). Likewise, Student 7 exhibited incidents of aggression 45 times during the beginning of the implementation period compared to 12 times during the latter part of the implementation phase. Similarly, Student 8 demonstrated aggressions 53 times during the initial implementation period compared to 4 aggressive incidents in the final implementation phase. Student 9’s results showed marked improvement, from 63 aggressive episodes during the first part of the implementation phase compared to 22 episodes of aggression or disruptive behaviors in
the final stage of implementation. Last, Student 10 went from 47 aggressive incidents documented in the initial implementation period to only 3 incidents reported in the latter stage of the implementation period.

This researcher believes that this applied dissertation yielded positive results for the 10 targeted EBD students. The FBA/BIP training sessions, ILI FBA team interviews, newly acquired FBA data-gathering techniques, and implementation of specially designed BIPs were successful. This researcher feels ardently about each individual EBD student's progress in each of the 10 cases.

Discussion

Conducting FBAs and subsequent BIPs with EBD students produced favorable changes in the 10 targeted students' rates of aggressive and/or disruptive behavioral outbursts. This researcher set out to design an intervention program that would facilitate positive behaviors in 10 targeted EBD students identified for participation in this researcher's applied dissertation.

FBAs have deep roots and a long history for use with behaviorally challenged youngsters with severe developmental disabilities. Theoretical foundations behind FBAs can be traced to the field of applied behavior analysis. Growing bodies of researchers agree that functional analysis techniques are effective tools for analyzing students' problematic behaviors and subsequent treatment plans. FBA techniques have deep historical roots related to the field of applied behavior analysis. This researcher's FBA/BIP training modules focused on review of literature beginning with the history and theories behind FBAs and FBA laws to effective FBA data-gathering techniques and data analysis. Although related Outcome Objective 3 was not met after analyzing survey results conducted with professionals working with the EBD students, conversations with
this researcher's team contradicted this statistical result. In the final weekly EBD FBA/BIP crisis team meeting conducted at the close of the 2002/2003 school year, six of the seven professional EBD staff members spoke favorably about the usefulness and necessity of gathering FBA data when developing EBD students' BIPs.

Review of literature confirmed that FBAs are effective in identifying possible causes or functions of behaviorally challenged student's exhibition of problematic behaviors. The FBA tools used to assess the behaviors of the 10 targeted students who participated in this study appeared to be effective in identifying possible underlying causes behind each student's display of aggressive or disruptive behaviors. Skinner (as cited in Boeree, 1998) asserted that behaviors are exhibited in response to environmental triggers. One FBA screening tool, ILI (Knoster, 2000), provided this researcher's FBA/BIP school-based team with an excellent framework for understanding why individual students engage in challenging behaviors. In addition, it helped this researcher's FBA/BIP training team identify potential environmental influences that may have maintained or triggered negative behaviors in each of the targeted EBD students. Knoster asserted that the ILI is an effective tool for identifying, analyzing and addressing behaviorally challenged students' problematic behaviors. In addition, Knoster stated, "The ILI is conducive to supporting student-centered teams in schools in order to provide comprehensive behavior support" (p. 207). The outcome objectives related to ILI effectiveness was met with positive results. Team members and parent participants at this school site indicated through the surveys and extensive dialogue with this researcher that the ILI was a valuable and extremely practical FBA assessment tool. FBA/BIP training team members at this researcher's school site affirmed that information obtained through this 60- to 75-minute FBA team interview process helped the FBA/BIP team identify
crucial information about each student's behavior. Domains targeted through the ILI process included the following: strengths of the student, slow triggers (setting events), fast triggers (antecedents), problem behavior, perceived function, and actual consequence. From discussion of the preceding topics, the group that included each EBD student's parent easily identified predictors, setting events, and antecedents for each student. By the close of each of the 10 ILI team meetings, desired behaviors, problem (target) behaviors and alternative behaviors as well as maintaining consequences were established for each student. Knoster (2000) claimed, "Application of most school-based methods allows a moderate degree of systematic individualization in classroom settings, however, they typically do not provide the degree of flexibility nor specificity required when a student displays significant challenging behavior" (p. 209). As stated previously, the ILI framework was well received by this researcher's FBA/BIP team and served the 10 targeted EBD students well. It was most definitely a critical piece of the FBA/BIP process of this researcher's applied dissertation.

According to Gresham et al. (2001), FBAs are a process that attempts to find a connection between various environmental variables that serve to maintain a problematic student's disruptive behaviors. Specific FBA data collection techniques such as: the ILI FBA team interview screening tool, FBA scatter-plot graphs, A-B-C observation protocols and individual EBD student and parent interviews as well as individual reviews of IEP student folder records produced favorable FBA data analysis results accomplished this task for this researcher's team. OSEP (2000) indicated, "FBA information is used to identify and teach more appropriate replacement behaviors and to develop an effective plan for reducing the frequency or severity of the problem behavior" (p. 2). This researcher's FBA/BIP team used analysis of FBA data to develop individualized effective
comprehensive BIPs for each targeted EBD student participating in this study.

There is an abundance of literature demonstrating the effectiveness of behavioral interventions for reducing disruptive student behaviors (Stoner, Shinn, & Walker, 1991). A growing number of researchers including Fox, Conroy, and Heckeman (as cited in Hendrickson et al., 1999) agreed, “Applied behavior analytic approaches have demonstrated the utility of conducting FBAs for designing intervention plans for students who demonstrate behavior problems” (p. 288). A meta-analytical study conducted by Warger (1999), synthesized over 100 journals. The results demonstrated strong support in favor of using FBAs and Positive Behavior Intervention System Plans to effectively assess and treat behaviorally challenged youth in school settings. According to Warger, “PBS is effective in reducing problem behavior by 80% in two-thirds of the cases” (p. 3). Compelling evidence supports the fact that Functional Analysis and Positive Behavioral Support plans provide a positive framework for effectively dealing with a school's most challenging student behaviors. In contrast, however, Yell and Katsiyannis (2000) presented evidence indicating that much more research is needed supporting the use of FBA/BIPs with the EBD student population. Conroy et al. (2000), as well as Schiter et al. (2000), concurred, stating that there is limited empirical research identifying effective components necessary to evaluate EBD students using an FBA process. Most FBA practices and BIP intervention strategies have been developed and implemented with students with developmental disabilities. FBA/BIP strategies for use with EBD students are in the preliminary stages. Therefore, caution must be taken when utilizing these strategies with EBD students until more research can be done where these practices can be empirically validated.

The 1997 Reauthorization of IDEA influenced school districts' decisions
regarding FBA/BIP implementation practices with all special education student populations. As the new IDEA Reauthorization mandates are determined, it is hoped that the federal government IDEA committee officials will be mindful of the positive and negative aspects of the law with regard to FBA/BIP implementation practices specific to public school settings as well as more restrictive type environments.

The 10 targeted students' incidents of aggressive and disruptive behaviors decreased during the BIP phase of this applied dissertation. Compelling data was presented documenting a decrease in each of the 10 targeted EBD students' displays of aggressive or disruptive behaviors during the latter part of the implementation period. Five of the 10 targeted EBD students demonstrated a marked decrease in aggressive behavioral outbursts during the intervention phase of this study. SPSS results used to analyze the EBD students' before and after aggressive episodes revealed that the positive results were statistically significant to the .005 level. Targeted FBA/BIP training team members who worked directly with each targeted EBD student felt that as a group, aggressive behaviors decreased for the 10 targeted EBD students who were the focus of this applied dissertation. This was demonstrated by the decreased need for utilizing PCM techniques during the FBA/BIP implementation phase of this study. There were only three PCM restraints implemented during the 9-week implementation phase of this project during which only one was required during the last 4 weeks of this study. Furthermore, External Timeouts significantly decreased from 98 incidents during the preimplementation phase to 7 during the postimplementation period. As stated in the Results section, five of six outcome objectives put forth by this researcher were met.

Limitations

The results of this study support previous research findings that FBAs used in
conjunction with BIPs produce positive results, a decrease in aggressive and/or disruptive behaviors in students who exhibit severe behaviors in the school setting. However, the results of this study should be interpreted with caution. Ethical considerations, size of EBD sample group and lack of ability to identify a control group or experimental group research design prevents this researcher from being able to state that it was the FBA/BIP intervention that caused the decrease in the targeted EBD students' exhibition of aggressive/disruptive behaviors. Other variables that must be considered as well are that the 10 students receive small group counseling two to three times per week and are participating in a highly structured EBD specialized program whereby their behaviors are rated on frequent time intervals throughout the day. In addition, 5 of the 10 targeted students take medication to help manage their behaviors. These variables may well be a contributing factor to the study participant's behavioral success.

Recommendations

With the increasing onset of aggressive behaviors in the public schools, many schools are being forced to take on the responsibility of teaching children prosocial behaviors. Following are recommendations that could further the solution in any school setting:

1. Ongoing training opportunities should be made available for educational staff to be kept up to date with most recent developments in the area of FBAs and BIP strategies.

2. All public schools should be provided with a full-time trained Behavior Specialist so that FBA/BIPs can be efficiently and effectively conducted, implemented, monitored, and revised on frequent time intervals.

3. Targeted school personnel in public school settings should be trained in the ILI
(Knoster, 2000), as it is truly a valuable FBA tool/screening that would be an asset to any school's current FBA/BIP procedure, method, or plan.

4. Further research pertaining to the effectiveness and implementation practices of conducting FBA/BIPs with EBD students should be undertaken.

**Dissemination**

This researcher’s applied dissertation results were shared via a summary report of findings at an end-of-the-year 2003 faculty meeting. A discussion and question-and-answer dialogue will take place following the dissemination of the summary report of this implementation project.

This researcher plans to submit a copy of this applied dissertation for possible publication to such scholarly journals as the *Journal of Applied Behavior Analysis* and/or the *Journal of Behavior Disorders*. 
References


Florida Department of Education. (2002). Special programs and procedures for exceptional students. Fort Lauderdale, FL: Author.


Quinn, M., Kavale, K., Mathur, S., Rutherford, R., Jr., & Forness, S. (1999). A meta-analysis of social skill interventions for students with emotional or behavioral disorders. *Journal of Emotional and Behavioral Disorders, 7*(1), 54-64.


Sutherland, K. (2000). Promoting positive interactions between teachers and students with


Appendix A

PCM Log
<table>
<thead>
<tr>
<th>Name:</th>
<th>Last</th>
<th>First</th>
<th>Reason</th>
<th>Asst Code</th>
<th>Immobilized</th>
<th>Place Code</th>
<th>Immobilization Began</th>
<th>End</th>
<th>Result Code</th>
<th>Parent Notified</th>
<th>Initiator Name(s)</th>
<th>Date</th>
<th>Describe Behavior*</th>
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<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>yes no</td>
<td>V P</td>
<td>yes no</td>
<td>V P</td>
<td>yes no</td>
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<td>yes no</td>
<td>V P</td>
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<td>yes no</td>
<td>V P</td>
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</table>

**REASON CODE:**
1. Physical aggression (continuous)
2. Severe disruption (continuous)
3. Self-injury (continuous)
4. 
5. 
6. 

**IMMOBILIZATION TYPE:**
V = Vertical
P = Prone

**PLACE CODE:**
1. Timeout room
2. Classroom
3. Admin. Offices
4. Hallways
5. Playground
6. Cafeteria

**RESULT CODE:**
1. Back to class
2. Timeout
3. Sent home
4. Suspension
5. Stay after school
6. Assigned task

* Attach anecdotal when more explanation is necessary to describe antecedent that led to behavior.
Appendix B

Timeout Log
# TIMEOUT LOG

Name of School: ____________________________  Month: ____________

<table>
<thead>
<tr>
<th>Name (Last, First)</th>
<th>Reason (Code)</th>
<th>Time In</th>
<th>Time Out</th>
<th>Total Min.</th>
<th>Behavior in T.O.</th>
<th>Initiator's Name</th>
<th>Place Code</th>
<th>Date</th>
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<td>123456</td>
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<td>ABCD</td>
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</table>

**Reason Code:**
1. Physical aggression toward others
2. Destruction of Objects
3. Throwing Objects
4. Severe Disruption (constant d/ask behavior for over three minutes after stop warning prevents learning)
5. Threatening Others
6. Student Request

**Behavior in Timeout Code:**
A - Withdrawn
B - Compliant/ Quiet
C - Verbally Noncompliant
D - Physically Noncompliant

**Place Code:**
1. Seclusion Timeout Room
2. Administrative Offices
3. Support Personnel Offices
4. Area in Classroom (exclusion)
5. Other (please indicate)
Appendix C

Daily Point Sheet
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**CODE:**  
D = NOT FOLLOWING DIRECTIONS  
S = OUT OF SEAT/NOT SITTING PROPERTY  
H = TALKING OUT/NOT RAISING HAND  
T = OFF TASK  
R = RESPECT/INAPPROPRIATE LANGUAGE  
A = AGGRESSIVE BEHAVIOR (5 PTS LOSS)
Appendix D

Scatter Plot
SCATTER- PLOT

Student: 

Observer: 

Date: 

Target Behavior

Using a scatter-plot involves recording the times of day (and/or activities) in which the behavior does occur and does not occur to identify patterns that occur over

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
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☐ Behavior did not

☐ Behavior

☐ Did not
Appendix E

A-B-C Recording Form
A-B-C Recording Form

Student: ___________________________ Date: ___________________________

Observer: ___________________________ Times began: _______ end: _______

A-B-C recording involves documenting the student’s behavior and the events that immediately precede and follow it. The more specific and precise the description, the more useful the data will be.

<table>
<thead>
<tr>
<th>A - ANTECEDENTS</th>
<th>B - BEHAVIOR</th>
<th>C - CONSEQUENCES</th>
</tr>
</thead>
<tbody>
<tr>
<td>(describe activity and specific events preceding the behavior, e.g., specific interactions)</td>
<td>(describe exactly what the student said or did)</td>
<td>(describe events that followed or results of the behavior, e.g. reprimands, delays in activity)</td>
</tr>
</tbody>
</table>

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</table>
Appendix F

EBD Student Questionnaire
EBD Student Questionnaire

1. When you’re upset, angry or frustrated, what do you?

2. What should you do when you’re upset, angry or frustrated?

3. When an adult or another student makes you angry or upset, what do you usually do?

4. When you need to calm down, what can you do to help yourself cool down and relax?

5. How is your behavior in school most of the time?

6. During the last 6-9 weeks (marking period) describe your behavior.

Has it improved or gotten worse?
Appendix G

EBD Student Likert Scale Survey
# EBD Student Likert Scale Survey

Student Name:

<table>
<thead>
<tr>
<th></th>
<th>Agree Strongly</th>
<th>Agree</th>
<th>Disagree</th>
<th>Disagree Strongly</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>I feel my behavior has improved during this last report card period (9 wks).</td>
<td></td>
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</tr>
<tr>
<td>2.</td>
<td>I behave appropriately in class.</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>3.</td>
<td>I make &quot;good choices&quot; in school.</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>4.</td>
<td>When I'm upset, frustrated or angry, I count to 10 or walk away to cool down.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>I ask to speak to an adult of choice when I'm upset, angry or frustrated.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>When I'm upset, angry or frustrated, I don't throw things, hit or yell or scream.</td>
<td></td>
<td></td>
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<tr>
<td>8.</td>
<td>I follow adult directions.</td>
<td></td>
<td></td>
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<tr>
<td>9.</td>
<td>Having good behavior is important to me.</td>
<td></td>
<td></td>
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<tr>
<td>10.</td>
<td>My teacher and others who work with me feel my behavior has improved in the last 6-9 weeks.</td>
<td></td>
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</tr>
</tbody>
</table>
Appendix H

ILI Flow Chart
Initial Lines of Inquiry (ILI) FBA Team Interview Flow Chart

<table>
<thead>
<tr>
<th>PARTICIPANTS:</th>
<th>Student's Name:</th>
<th>Date:</th>
</tr>
</thead>
</table>

**Strengths of the Student:**

<table>
<thead>
<tr>
<th>Slow Triggers  (Setting Events)</th>
<th>Fast Triggers  (Antecedents)</th>
<th>Problem Behavior</th>
<th>Perceived Function</th>
<th>Actual Consequence</th>
</tr>
</thead>
</table>

**Hypothesis:**
Global Hypothesis Formation

Setting Events → Predictors Antecedents → Desired Behavior → Problem Behavior → Maintaining Consequence (Function) → Alternate Behavior

Hypothesis Statement →
Appendix I

School Personnel Likert Scale Surveys
## School Personnel Likert Scale Surveys

<table>
<thead>
<tr>
<th>Statement</th>
<th>Agree Strongly</th>
<th>Agree</th>
<th>Disagree</th>
<th>Disagree Strongly</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The Initial Line Inquiry (ILI) Knoster 2000 FBA team interview</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>process was an excellent tool to assist school-based teams in development</td>
<td></td>
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<tr>
<td>of BIPs</td>
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<tr>
<td>2. The ILI FBA screening tool is a great tool for assisting FBA teams to</td>
<td></td>
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<tr>
<td>identify various setting events of student’s problematic behaviors.</td>
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<tr>
<td>3. The ILI FBA screening tool enabled FBA team members to identify</td>
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<tr>
<td>possible antecedents of specific student’s problem behaviors.</td>
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<tr>
<td>4. The ILI FBA screening tool assisted our school-based team in</td>
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<tr>
<td>identification of individual student’s problem behaviors.</td>
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<tr>
<td>5. The ILI FBA screening tool assisted our school-based team in</td>
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<tr>
<td>identifying the perceived function of Student’s problem behavior(s).</td>
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<tr>
<td>6. The ILI FBA screening tool was helpful in assisting our school-based</td>
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<tr>
<td>FBA team in formulating accurate hypothesis statements pertaining to</td>
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<tr>
<td>what, when and why a student engages in problematic behavior(s).</td>
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<tr>
<td>7. The ILI FBA screening tool was an excellent format for assisting FBA</td>
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<tr>
<td>school-based teams in identifying strengths and weaknesses of</td>
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<tr>
<td>individual students.</td>
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<tr>
<td>8. The ILI FBA screening tool will be helpful in assisting FBA teams in</td>
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<tr>
<td>identifying proactive, replacement and consequence strategies for</td>
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<tr>
<td>students who exhibit challenging behaviors.</td>
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<tr>
<td>9. Having parent(s) part of the ILI FBA team interview process is</td>
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<tr>
<td>extremely important in the FBA process and subsequent development of</td>
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<tr>
<td>positive Behavior Intervention Plans.</td>
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<tr>
<td>10. The 60-70 minute ILI FBA team interview process is time well spent</td>
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<tr>
<td>as it provides school-based teams with invaluable information about</td>
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<tr>
<td>specific student’s behaviors.</td>
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</table>
Appendix J

School Personnel Pre-EBD Student Survey
### School Personnel Pre-EBD Student Survey

<table>
<thead>
<tr>
<th>Professional Staff Member’s Name</th>
<th>Agree Strongly</th>
<th>Agree</th>
<th>Disagree</th>
<th>Disagree Strongly</th>
</tr>
</thead>
<tbody>
<tr>
<td>I feel that _______ exhibits significant aggressive behaviors most of the time.</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>_______ throws objects, hits, kicks at least once a day in school environment.</td>
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</tr>
<tr>
<td>_______ requires physical constraints to calm down 2 or more times per week.</td>
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<tr>
<td>_______ requires de-escalation strategies to calm down.</td>
<td></td>
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<tr>
<td>_______ requires an isolated time-out at least 1 to 2 times/day.</td>
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</tr>
<tr>
<td>I feel that the FBA data is needed to analyze the causes or functions behind _______’s behavior</td>
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</tr>
<tr>
<td>I feel I would benefit from more FBA training to enable me to identify possible causes for why _______ engages in negative behavior.</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>After reviewing the ILI article, <em>Practical application of Functional Behavior assessment in Schools</em> by T. Knosten, I feel this tool would be a help in identifying patterns in _______’s exhibition of challenging behavior.</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>After reviewing the ILI school-based interview process, I feel this team-based FBA interview process would be helpful in designing _______’s BIP.</td>
<td></td>
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</tr>
<tr>
<td>I feel _______ would benefit from a BIP to increase his/her acquisition and use of socially acceptable behaviors in the school environment.</td>
<td></td>
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Appendix K

School Personnel Post-EBD Student Survey
School Personnel Post-EBD Student Survey

<table>
<thead>
<tr>
<th>Professional Staff Member’s Name</th>
<th>Agree strongly</th>
<th>Agree</th>
<th>Disagree</th>
<th>Disagree strongly</th>
</tr>
</thead>
<tbody>
<tr>
<td>I feel that ________ exhibits significant aggressive behaviors most of the time.</td>
<td></td>
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<tr>
<td>________ throws objects, hits, kicks at least once a day in school environment.</td>
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<tr>
<td>________ requires physical constraints to calm down 2 or more times per week.</td>
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<tr>
<td>________ requires de-escalation strategies to calm down.</td>
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<tr>
<td>________ requires an isolated time-out at least 1 to 2 times/day.</td>
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<tr>
<td>I feel that the FBA data is needed to analyze the causes or functions behind ________’s behavior</td>
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<tr>
<td>I feel I would benefit from more FBA training to enable me to identify possible causes for why ________ engages in negative behavior.</td>
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</tr>
<tr>
<td>After reviewing the ILI article, <em>Practical application of Functional Behavior assessment in Schools</em> by T. Knosten, I feel this tool would be a help in identifying patterns in ________’s exhibition of challenging behavior.</td>
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<tr>
<td>After reviewing the ILI school-based interview process, I feel this team-based FBA interview process would be helpful in designing ________’s BIP.</td>
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<tr>
<td>I feel ________ would benefit from a BIP to increase his/her acquisition and use of socially acceptable behaviors in the school environment.</td>
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Appendix L

FBA/Behavior Intervention Plan
# FBA/Behavior Intervention Plan

**School Board of XXXXXXXX**  
**Exceptional Student Education**

**RESULTS OF FUNCTIONAL BEHAVIORAL ASSESSMENT (FBA) and BEHAVIORAL INTERVENTION PLAN (BIP)**

<table>
<thead>
<tr>
<th>Student Name (Last, First)</th>
<th>Today's Date</th>
<th>Date of Birth</th>
<th>School</th>
<th>Implementation Date</th>
<th>Grade</th>
</tr>
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<tbody>
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</table>

<table>
<thead>
<tr>
<th>Exceptionality(ies)</th>
<th>Date(s) Reviewed</th>
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**Intervention Team Members**

<table>
<thead>
<tr>
<th>Signature</th>
<th>List participants/titles involved in conducting the FBA/BIP development</th>
<th>Print Name/Title</th>
</tr>
</thead>
<tbody>
<tr>
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</tbody>
</table>

**Rationale**

- Student is engaging in behavior that places the student or others at risk of harm and/or results in substantial property damage.
- Behavioral concerns may result in exclusion from participation in activities or settings with peers.
- Educational team is considering a more restrictive placement due to behavioral concerns.
- Student’s behavioral difficulties persist despite consistently implemented behavior management strategies based on a less comprehensive or systemic assessment.
- Other ___________________________

**Student Profile**

A. Describe the student's strengths, skills and interest.

B. Describe the student's limitations.

**Target Behavior**

What is the specific behavior identified for increase or decrease?  
Description of behavior (what student says or does)

Baseline Estimate (how often, how long)

**Records**

What records were reviewed?  
- [ ] Curriculum IEP  
- [ ] Disciplinary records  
- [ ] Previous interventions  
- [ ] Anecdotal/home notes  
- [ ] Psychological evaluation  
- [ ] Other ___________________________

What relevant information was obtained?

Conducted by ___________________________

**Interviews**

What interviews were conducted?  
- [ ] Student  
- [ ] Parent  
- [ ] ESE teacher  
- [ ] General education teacher  
- [ ] School administrator  
- [ ] Related services provider  
- [ ] Other ___________________________

What relevant information was obtained?

Conducted by ___________________________

**Observations**

What observations occurred?  
- [ ] Location  
- [ ] Other ___________________________

What relevant information was obtained?

Tools used ___________________________

Conducted by ___________________________

**Other Assessments**

Curricular assessments?  
What, if any, other assessments were conducted (e.g., ecological or classroom management inventories).
### Summary (Hypothesis) Statements

**Patterns**  What patterns were identified in the data collected (i.e., circumstances in which behavior is most likely/least likely, possible functions of the behavior)  

the student does . . .  
(describe the behavior)  

to get or avoid  
(describe consequences)

### Setting Events

Are the other variables that appear to be affecting the student's behavior (e.g., medical problems, curricular issues)?

### Goals of Intervention

What are the social and educational goals for the student (e.g., increased participation in inclusive settings, development of friendships, improved academic performance)?

---

**Intervention Components**  

**Description of Interventions (Additional sheets if necessary)**

**Proactive Strategies**  
What environmental adjustments will be used to make the student's problem behavior unnecessary?

**Replacement Skills**  
What skills will be taught to replace (meet the same function as) the student's problem behavior?

**Consequence Strategies**  
How will consequence(s) be managed to ensure the student receives reinforcers for positive, & not problem behavior? When the student does . . . Adults will do . . .

---

**Generalization and Maintenance Strategies** (attach additional sheets, if necessary)

1. Describe how interventions will be implemented across time, people, and settings.

2. Describe the maintenance strategies (include fading process)

---

**Crisis Management**

Are crisis management procedures needed to insure safety and de-escalation of the student's behavior in emergency situations?  

☐ Yes  ☐ No  

If yes, describe strategies:

---

**Monitoring**  
Title of person responsible for monitoring progress?  
How frequently will monitoring take place?  

☐ Daily  ☐ Weekly  ☐ Monthly  ☐ Other:  

**Evaluation**  
How will implementation and outcomes be evaluated?

---

**Section 6-14**
Appendix M

Individual Student 1 Report With Exploratory B Design Graph
### Aggressive Behaviors for Pre-Implementation Period

<table>
<thead>
<tr>
<th>Kicking</th>
<th>Hitting/pushing</th>
<th>Running away</th>
<th>Throwing Objects</th>
<th>Self injurious behavior</th>
<th>Eating non-food items</th>
<th>Verbal abuse (threats)</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>7</td>
<td>3</td>
<td>3</td>
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<td>3</td>
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### Aggressive Behaviors Total for 9 Week Implementation Period

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<th>Kicking</th>
<th>Hitting/pushing</th>
<th>Running away</th>
<th>Throwing Objects</th>
<th>Self injurious behavior</th>
<th>Eating non-food items</th>
<th>Verbal abuse (threats)</th>
<th>TOTAL</th>
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### Aggressive Behaviors per Week per Student

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<th>4-7</th>
<th>4-14</th>
<th>4-21</th>
<th>4-28</th>
<th>5-5</th>
<th>5-12</th>
<th>5-19</th>
<th>5-26</th>
<th>6-2</th>
<th>6-9</th>
</tr>
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<tbody>
<tr>
<td>Kicking</td>
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<tr>
<td>Hitting/pushing</td>
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<tr>
<td>Running away</td>
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<tr>
<td>Throwing Objects</td>
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<tr>
<td>Self injurious behavior</td>
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<td>Eating non-food items</td>
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<td>Verbal abuse (threats)</td>
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![Bar graph](image)
Appendix N

Individual Student 2 Report With Exploratory $B$ Design Graph
## Individual Student 2 Report With Exploratory B Design Graph

### Aggressive Behaviors for Pre-Implementation Period

<table>
<thead>
<tr>
<th></th>
<th>Kicking</th>
<th>Hitting/pushing</th>
<th>Running away</th>
<th>Throwing Objects</th>
<th>Self Injurious behavior</th>
<th>Eating non-food items</th>
<th>Verbal abuse (threats)</th>
<th>TOTAL</th>
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### Aggressive Behaviors Total for 9 Week Implementation Period

<table>
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<tr>
<th></th>
<th>Kicking</th>
<th>Hitting/pushing</th>
<th>Running away</th>
<th>Throwing Objects</th>
<th>Self Injurious behavior</th>
<th>Eating non-food items</th>
<th>Verbal abuse (threats)</th>
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### Aggressive Behaviors per Week per Student

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<th>4-14</th>
<th>4-21</th>
<th>5-5</th>
<th>5-12</th>
<th>5-19</th>
<th>5-26</th>
<th>6-2</th>
<th>6-9</th>
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</table>

![Bar chart showing the comparison between pre-implementation and post-implementation periods for different behaviors over the weeks.](chart.png)
Appendix O

Individual Student 3 Report With Exploratory B Design Graph
Individual Student 3 Report With Exploratory B Design Graph

**Aggressive Behaviors for Pre-Implementation Period**

<table>
<thead>
<tr>
<th>Kicking</th>
<th>Hitting/pushing</th>
<th>Running away</th>
<th>Throwing Objects</th>
<th>Self injurious behavior</th>
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**Aggressive Behaviors Total for 9 Week Implementation Period**

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<th>Kicking</th>
<th>Hitting/pushing</th>
<th>Running away</th>
<th>Throwing Objects</th>
<th>Self injurious behavior</th>
<th>Eating non-food items</th>
<th>Verbal abuse (threats)</th>
<th>TOTAL</th>
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**Aggressive Behaviors per Week per Student**

<table>
<thead>
<tr>
<th>WEEK OF</th>
<th>4-7</th>
<th>4-14</th>
<th>4-21</th>
<th>4-28</th>
<th>5-5</th>
<th>5-12</th>
<th>5-19</th>
<th>5-26</th>
<th>6-2</th>
<th>6-9</th>
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</thead>
<tbody>
<tr>
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**Graph**

- Pre-implementation
- Post-Implementation
Appendix P

Individual Student 4 Report With Exploratory $B$ Design Graph
Individual Student 4 Report With Exploratory B Design Graph

Aggressive Behaviors for Pre-Implementation Period

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Aggressive Behaviors Total for 9 Week Implementation Period

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Aggressive Behaviors per Week per Student

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![Graph showing aggressive behaviors pre-implementation vs post-implementation](image)
Appendix Q

Individual Student 5 Report With Exploratory B Design Graph
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### Graph

- **Pre-implementation**
- **Post-implementation**

- **Legend**
  - □ Pre-implementation
  - ■ Post-implementation
Appendix R

Individual Student 6 Report With Exploratory B Design Graph
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![Bar chart comparing Pre-implementation and Post-implementation aggressive behaviors](chart.png)
Appendix S

Individual Student 7 Report With Exploratory B Design Graph
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### Aggressive Behaviors per Week per Student

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### Graph

- Pre-implementation
- Post-Implementation
Appendix T

Individual Student 8 Report With Exploratory B Design Graph
### Aggressive Behaviors for Pre-Implementation Period

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![Graph](image-url)
Appendix U

Individual Student 9 Report With Exploratory B Design Graph
Individual Student 9 Report With Exploratory B Design Graph

### Aggressive Behaviors for Pre-Implementation Period

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### Aggressive Behaviors per Week per Student

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### Graph

**Graph legend:**
- Pre-implementation
- Post-implementation
Appendix V

Individual Student 10 Report With Exploratory $B$ Design Graph
## Aggressive Behaviors for Pre-Implementation Period

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## Aggressive Behaviors Total for 9 Week Implementation Period

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### Graph

The graph shows the comparison between pre-implementation and post-implementation aggressive behaviors. The x-axis represents different activities, while the y-axis represents the number of occurrences. The bars indicate the frequency of behaviors during each period.