

Using Functional Assessment and Intervention Planning with a Single-Case Study of a  
Child with a Cognitive Disability


by

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ABSTRACT

Functional Behavioral Assessments (FBAs) and Behavioral Intervention Plans (BIPs) are the best practice standard in education for reducing the occurrence of problem behavior of students with emotional and behavioral disabilities. Although the research on the use of FBAs and BIPs with the emotional and behavioral disabilities population is strong, there is little research on the effectiveness of intervention plans for students with cognitive disabilities. The purpose of this case study was to determine whether conducting an FBA on a child with cognitive disabilities helps in the development of an intervention plan, and if interventions based on an FBA actually prove to be successful for a child with a cognitive disability. In this single-subject design, an FBA and BIP were completed on an elementary-aged student with a cognitive disability. Baseline data and intervention data was collected and analyzed to determine the effectiveness of the plan on the subject's problem behaviors of verbal resistance and physical resistance. Analysis of



the data concluded that the subject's problem behaviors of verbal resistance and physical resistance decreased from baseline to the final phase of intervention. It was concluded that conducting an FBA on a child with cognitive disabilities aids in the development of an intervention plan, and interventions based on an FBA prove to be successful for a child with a cognitive disability. Although this was a single-subject research design and the findings of this study cannot be generalized to a larger population, it is hoped that this research will guide future research on the use of FBAs and BIPs with the cognitive disability population.

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## Chapter I: Introduction

### *Background*

Students may exhibit a variety of behavioral problems in schools. Serious problem behaviors displayed in school can interfere with the learning of the individual student displaying the behavior and also of other students in the classroom. In order to effectively address problem behaviors, school personnel must analyze the problem behavior and identify what purpose or function it is serving for the child (Murdick & Gartin, 1999). Because behavior is purposeful, behavior is used by individuals to fill functions, needs, or purposes. All behavior, including inappropriate behavior, results from a complex interaction between the child and his or her environment (Murdick & Gartin, 1999).

Functional Behavioral Assessment (FBA) attempts to understand the link between behavioral problems and the environment through interviews, cumulative record reviews, and observation of the problem behavior (O'Neill et al., 1997). Functional Behavior Assessments are then used to develop Behavior Intervention Plans (BIPs) for individual students with behavioral issues. Functional Behavioral Assessment and the resulting Behavior Interventions Plans are quickly become the standard in the PreK-12 setting. The National Association of School Psychologists (NASP) delineates best practice guidelines to be followed by practicing school psychologists in order to uphold personal and professional ethics within the field ("National," 2005). When students' behavior problems are impeding the learning of themselves or others in a school setting, it is considered best practice to conduct an FBA and BIP (Knoster & McCurdy, 2002). The NASP requires practicing school psychologists to use decision making models, such as



the FBA process, to “consider the antecedents, consequences, functions, and potential causes of behavioral problems exhibited by students with disabilities, which may impair learning or socialization” (“National,” 2005, p.44). Conducting an FBA and the resulting BIP on a student who is exhibiting behavioral problems is not only considered by the NASP to be best practice, it is also in compliance with the current IDEA guidelines.

Because Functional Behavior Assessment and Behavior Intervention Planning are proving successful in the school setting, the current Individuals with Disabilities Education Act (IDEA) (2004) guidelines mandate the use of FBAs and BIPs to address serious problem behaviors of students with and without disabilities (Yell et al., 2006). Because of IDEA legislation requires FBAs and BIPs for students needing manifestations determinations due to problematic behavior resulting in disciplinary action, this process in the school systems is often used with, and reserved for, those with Emotional and/or Behavioral Disabilities. However, Radford and Ervin (2002) conveyed that extensive research has been conducted and proven effective the use of FBAs and BIPs on students with *and without* emotional and behavioral disabilities (Cited in Hieneman et al., 2005). Although the use of FBAs and BIPs in the school systems have been proven to be effective in reducing the occurrence of problem behavior with students with emotional and behavioral disabilities, the effectiveness of using FBAs and BIPs with students with cognitive disabilities has not been extensively researched. Therefore, it is important to assess the effectiveness of Functional Behavioral Assessment and intervention plans with children with cognitive disabilities to guide future research and interventions with this population.



### *Statement of the Problem and Purpose of the Study*

Given that the FBA and BIP process is currently the best practice standard in education for working with children with behavioral issues and there is little research on the effectiveness of intervention plans for students with cognitive disabilities, the purpose of this case study is to determine whether an intervention plan based on Functional Behavioral Assessment is effective for a child with a cognitive disability. In this single-subject design, an FBA and BIP were completed on an elementary-aged student with a moderate cognitive disability. Baseline data and intervention data was collected and analyzed to determine the effectiveness of the plan on the subject.

### *Research Questions*

In this case study, the following questions will be addressed:

- 1) Does conducting an FBA on a child with cognitive disabilities help in the development of an intervention plan?
- 2) Do interventions based on an FBA actually prove to be successful for a child with a cognitive disability?

### *Definition of Terms*

The following includes a list of frequently used terms throughout this paper that need to be explicitly understood in order to fully comprehend the research:

*Behavioral Intervention Plan (BIP):* A process of identifying positive behavioral strategies that will teach and support appropriate replacement behaviors that make the problem behavior ineffective, irrelevant, and inefficient (Kerr & Nelson, 2006).

*Functional Behavioral Assessment (FBA):* "...a set of processes for defining the events in an environment that reliably predict and maintain problem behaviors. Functional



assessment can include interviews, rating scales, direct observations, and systematic, experimental analysis of problem situations” (O'Neill et al., 1997, p.1).

*Direct Assessment:* The use of behavior observation methods to gather information to determine the antecedent, consequence, and function of the problem behavior (Kerr & Nelson, 2006).

*Indirect Assessment:* The use of interviews and rating scales to gather information from various sources to develop hypothesis for the functional behavioral assessment (Kerr & Nelson, 2006).

*Single-Subject Design:* “A wide variety of research designs that use a form of experimental reasoning called baseline logic to demonstrate the effects of the independent variable on the behavior of individual subjects” (Cooper et al., 2007, p. 704).

*Summary Statement:* Antecedent, consequence, and function information of the problem behavior obtained through interviews and direct observation is organized to form a summary statement or hypothesis of the problem behavior (O'Neill et al., 1997).

*Setting Events:* Anything in a person's life that may contribute to a display of undesirable behavior, such as medication, life changes, disabilities, and eating routines (O'Neill et al., 1997).

*Antecedents:* Events that happen before every behavior that may “set off” the undesirable behavior, such as time of day, certain people, or requests (O'Neill et al., 1997).

*Maintaining Consequences:* Happen right after every behavior and may enforce or reward the behavior, thus serving the function or purpose of the behavior (O'Neill et al., 1997)

*Function:* The purpose or need that a behavior is fulfilling. There are eight functions of behavior: acceptance or affiliation, attention, power and control, avoid or escape, expression of self, revenge, access to rewards, and sensory or motor input (Kerr & Nelson, 2006).

#### *Assumptions and Limitations of the Research*

It is assumed that this research will guide future research on the effectiveness of conducting FBAs and developing intervention plans for children with cognitive disabilities. Although this is a single-subject research design and the findings of this study cannot be directly applied to other students with cognitive disabilities who exhibit similar problem behaviors, it is hoped that this research will be expanded upon to guide future research on the effectiveness of using FBAs and BIPs with people with cognitive disabilities.



## Chapter II: Literature Review

This chapter will include a description of Functional Behavioral Assessment (FBAs) and Behavioral Intervention Planning (BIPs). It also includes a discussion of the current educational mandates requiring the use of FBAs and BIPs with students with disabilities and an analysis of the available literature on the use of FBAs and BIPs with students with cognitive disabilities.

### *The Process of Conducting FBAs and BIPs*

All behavior results from a complex interaction between the child and his or her environment. The goal of Functional Behavioral Assessments (FBAs) is to write a summary statement. This summary statement attempts to describe the interaction between the environment and the behavior in order to show what purpose or function the behavior serves for a child or youth. Summary statements include a description of setting events, antecedents, maintaining consequences, and function.

Setting events, antecedents, consequences, and functions surround every behavior. Setting events are events, activities, or characteristics within the child or within the child's life which contribute to a display of undesirable behavior. Examples of setting events include the following: medication, life changes, disabilities, and eating routines (O'Neill et al., 1997). Antecedents are events which immediately precede behavior. Antecedents can be described as the events which "set off" undesirable behavior. Examples of antecedents include the following: time of day, certain people, or certain requests. Maintaining consequences are the events which happen right after behavior and enforce or reward the behavior, thus serving the function or purpose of the behavior



(O'Neill et al., 1997). Examples of maintaining consequences include the following: receiving attention, escaping from undesirable tasks, or obtaining a desired object.

Several assessment techniques can be used to gain information about antecedents and maintaining consequences so that a summary statement can be written. Direct observation and interviews give insight and help determine what function a behavior might be serving for the child. Once assessment information about setting events, antecedents, and maintaining consequences is collected, it is then organized to form a summary statement or hypothesis of the problem behavior. The summary statement from the FBA is then analyzed to develop a Behavioral Intervention Plan (BIP) to reduce the frequency of the occurring problem behavior.

The BIP is developed by manipulating the summary statement to form a competing behavior model which includes a replacement behavior and a desired behavior (O'Neill et al., 1997). The replacement behavior is incompatible with the problem behavior, but serves the same function as the problem behavior does for the child. The replacement behavior is not always the most desirable behavior, but is an acceptable alternative behavior the child can use to meet their needs. The desired behavior included in the competing behavior model is the behavior that people would like to see the child perform instead of the problem or replacement behavior.

After the competing behavior model is developed, strategies are then brainstormed. Setting events strategies and antecedent strategies work by reducing the events which trigger the behavior, therefore making the behavior irrelevant (O'Neill et al., 1997). Consequence strategies work to make the problem behavior ineffective by eliminating the maintaining consequences that reinforce the behavior (O'Neill et al.,



1997). Teaching strategies make the problem behavior inefficient by teaching the student better, more appropriate, and more efficient ways to get their needs and functions met.

These strategies must be taught to the student or school personnel. From this brainstormed list, certain strategies are selected and attempted with the child. If the problem behavior is not reduced by the implementation of the BIP, the plan is then reformulated, implemented, and reevaluated until the problem behavior decreases.

#### *Legal Mandates Requiring the use of FBAs and BIPs in the Schools*

The current legal mandate IDEA (2004) requires that if a student with disabilities is exhibiting behavioral problems in school, the student's IEP team is required to conduct an FBA and implement a BIP to address the student's problem behavior (Yell et al., 2006). A behavior by a student with disabilities that could warrant an FBA and BIP is any behavior that affects his/her learning or the learning of other students, any behavior that could potentially harm the student or other students, any behavior which could change the student's placement to an interim alternative educational setting (IAES), or any behavior which requires removal from current placement (Drasgow & Yell, 2001). If the student's behavior warranted removal from his or her current placement, the IEP team is required to determine if the student's behavior was a manifestation of his or her disability (Yell et al., 2006). If the student's behavior was determined by the IEP team to be a manifestation of his or her disability, the IEP team is required to conduct an FBA and a BIP to address and prevent the problem behavior (Yell et al., 2006).

Although it is mandated by law that the student's IEP team conduct an FBA and a BIP, the steps that are required to complete the FBA and BIP are not specifically outlined in IDEA (Drasgow & Yell, 2001). Therefore, each state or school district is left to define



its own process to conduct FBAs and BIPs. Although each state or school district is left to define its process to conduct FBAs and BIPs, the information obtained from the FBA must be sufficient enough to produce an acceptable BIP that is capable of rendering the problem behavior irrelevant, ineffective or inefficient, thus providing students with disabilities a free and appropriate education (FAPE).

The FBA must be directly linked to the BIP in order for the problem behavior to cease. Stichter and Conroy (2005) explained that often times the FBA and BIP are difficult to link together, thus leading to confusion when determining what part of the intervention resulted in a change of the problem behavior. Van Acker et al. (n.d.) reported a review of over 70 FBAs and BIPs completed in school settings, and found that the schools failed to link intervention with the function of the behavior identified in the FBA (Cited in Fox & Davis, 2005). Drasgow and Yell (2001) cited the case of *Independent School District No. 2310* where the school district failed to conduct a comprehensive and thorough FBA and BIP and was subject to disciplinary action by the state for failing to provide the student with a FAPE. In addition, Johns (2001) cited the case of *Mason City Community School District* where the school district was subject to disciplinary action. The school district placed a student in an IAES before considering a less restrictive placement, and after the completion of an FBA and BIP that were not comprehensive enough and thus ineffective (Johns, 2001). Johns (2001) also cited the case of *Quaker Valley School District* where a student had severe behavioral problems that the school failed to appropriately address by not completing an FBA or BIP and failed to include any behavioral goals in his IEP. The school district was subject to disciplinary action for failing to address the student's behavioral issues (Johns, 2001). Examination of these



cases shows the importance of schools addressing students' behavioral issues by completing comprehensive and thorough FBAs which are directly linked to the BIPs in order to provide their students with a FAPE.

*The use of FBAs and BIPs with Students with Cognitive Disabilities*

Even though the literature regarding the effectiveness of FBAs and BIPs for students with emotional and behavioral issues is plentiful, there is not a plethora of information regarding the effectiveness of conducting FBAs and BIPs on students with cognitive disabilities. The small body of literature which is available has demonstrated that using FBAs and BIPs on challenging behaviors exhibited by students with cognitive disabilities can be effective in reducing the occurrence of those behaviors.

Murdick and Gartin (1999) conveyed that FBA is now accepted by authorities in the field of mental retardation as an assessment tool to deal with problem behaviors (Cited in Gartin & Murdick, 2005). The small body of available literature on FBA and BIP with cognitively disabled children does show effectiveness. However, much of the research has been completed in settings where it is difficult to generalize the findings to school classrooms (Stichter & Conroy, 2005). Research on the effectiveness of FBAs and BIPs with this population has taken place in a controlled setting and implemented by a researcher. It is difficult to directly apply this to a classroom setting where a teacher or other school administrator would implement the intervention (Stichter & Conroy, 2005).

A case study was completed by Luiselli and Murbach (2002) to evaluate an antecedent intervention to deal with tantrum behavior displayed by a five-year-old girl with cognitive, language, and motor challenges. After a review of the baseline data collected on the child's tantrums, it was hypothesized that the tantrums were present



when teachers familiar to the child were demanding work from her (Luiselli & Murbach, 2002). The intervention used to eliminate the tantrum behavior was to have “novel staff” conduct instruction when work was to be demanded from the child (Luiselli & Murbach, 2002, p.1). After the implementation of the intervention, Luiselli and Murbach (2002) found that the girl’s tantrum behavior was eliminated and continued to be absent a month after the initial introduction of the intervention. It was also found that the staff involved in the intervention rated it to be highly effective (Luiselli & Murbach, 2002).

Many behavioral problems in educational settings are exhibited by students who wish to escape from a task that may be too difficult or confusing for them to complete. These behaviors are called escape-motivated behaviors and may be effectively used by a child to escape a task by exhibiting tantrum behavior (Luiselli & Murbach, 2002). If a child employs an escape-motivated behavior during a school work activity and the task is stopped, the child’s behavior will be “reinforced negatively through the consequence of activity termination” (Luiselli & Murbach, 2002, p. 2). Escape-motivated behavior can be difficult to extinguish, but a variety of interventions have been proven to be successful in reducing or eliminating escape-motivated behavior (Luiselli & Murbach, 2002). Piazza, Contrucci, Hanley, and Fisher (1997) found that nondirective prompting and noncontingent reinforcement was effective in reducing the escape-motivated behavior of an eight-year-old girl with mental retardation. In addition, Coleman and Holmes (1998) found that the use of noncontingent reinforcement was effective in reducing the disruptive behavior in three preschool-aged children diagnosed with pervasive developmental delays.



Behavioral problems in students with severe disabilities also may be caused by a desire to communicate. The student may not have the ability to speak in sentences or phrases to achieve the desired interaction, attention, item, or activity and uses inappropriate behavior as a means to receive what they want (Bopp, Brown, & Mirenda, 2004). Functional communication training (FCT) is an intervention that is designed to teach students who have limited communication skills how to communicate in a socially acceptable manner to replace unacceptable means of communication. In order for FCT to be effective, the socially acceptable communication skills must match the function of the child's behavior. For example, if a child with minimal verbal skills uses screaming as a way to obtain attention, then the socially acceptable alternative taught to the child must signal a need for attention. Also, if a child uses screaming as a way to obtain more than one desired item or activity, then a socially acceptable alternative must be taught to the child for each desired item or activity. The effectiveness of FCT is also affected by the type of replacement communication and how much physical effort is involved in producing it. Richman, Wacker, and Winborn (2001) taught a three-year-old boy with pervasive development disorder how to use both a communication card and a manual sign for "please" to ask for a toy instead of using aggression (Cited in Bopp, Brown, & Mirenda, 2004). In order for the boy to use the manual sign, he just had to turn towards his mother and make the sign. When he used the communication card, he had to pick it up and give it to his mother, thus expending more physical effort. Richman et al. (2001) found that when both communication options were available to the boy, he would always choose the manual sign, thus expending less physical effort.



Horner and Budd (1985) completed an FBA on a child with autism and found that he was yelling and grabbing in order to get items or partake in activities in the classroom (Cited in Bopp, Brown, & Mirenda, 2004). FCT was included as a part of the child's BIP, and he was taught five manual signs to request specific items he wished to obtain. The implementation of the BIP resulted in a significant decrease in the child's aggressive behaviors and an increase in his manual sign usage. Similarly, Carr and Durand (1985) completed an FBA on four children with developmental disabilities who were displaying aggressive and disruptive behaviors in the classroom in order to receive teacher attention or escape from difficult tasks (Cited in Bopp, Brown, & Mirenda, 2004). FCT was also included as a part of the children's BIP, and they were taught two phrases to receive teacher attention or escape from tasks. The implementation of the BIP resulted in substantially lower rates of aggressive and disruptive behaviors and an increased rate of the phrase usage.

### *Summary*

Schools are mandated by law to complete FBAs and BIPs on students with cognitive disabilities who are exhibiting behavioral problems that affect their learning. FBAs and BIPs have been proven successful in reducing the problem behavior of students with disabilities. FBAs and BIPS not only reduce problem behavior effectively, but they also are beneficial for the student. If an FBA and the resulting BIP are completed on a student with cognitive disabilities who may not have the language ability to communicate and uses acting out as a means to get what he or she wants, the BIP can give the child the tools to communicate. Therefore, the child now has a better opportunity



to learn because their behavioral problems are no longer an issue for them or their teachers.

### Chapter III: Methodology

This chapter will explain in detail the methodology of the present single-subject research design. It will include a discussion of the participant who was selected for this study, instrumentation and data collection, and data analysis.

#### *Subject Selection and Description*

The selected subject attended an elementary school in a small rural community in western Wisconsin. The school district selected the subject because she had been exhibiting behavioral problems in the classroom. The school district decided to complete a Functional Behavioral Assessment on the subject and allow the principle investigator to be on the team who assessed and developed the plan. Written permission was obtained from the school district, the subject's mother, and the University of Wisconsin-Stout's Institutional Review Board before the study was conducted.

The subject was a 10-year-old female diagnosed with cerebral palsy, epilepsy, periventricular leukomalacia, and a cognitive disability. The subject has a 9-year-old brother who also has a cognitive disability. The subject also has a 16-year-old sister who is rarely around the home. The subject and her brother are cared for at home on a weekly basis by different personal care attendants. In addition, they both are in the same classroom and have the same special education teacher. The subject was selected because of her problem behaviors which include: hitting, biting, eating various items, throwing items, screaming, crying, and whining.

The subject's functioning has been stagnant in some areas and regressing in other areas since 2002. In the past, she had a vocabulary of approximately ten words, was receptive to verbal exchanges, and could walk with a walker and assistance



approximately 100 feet. Currently, the subject's vocabulary remains to be approximately ten words, she does not appear to be receptive to verbal exchanges except for where and what questions, and she is walking with a walker and assistance up to 100 feet. The subject presently has an IEP. Example IEP goals and the subject's present functioning on these goals are as follows:

- 1) The subject will type her first name and numbers 0-9 with a single finger touch with the computer 100% of the time. The subject currently has shown no interest in typing on the computer.
- 2) Given her walker and stand by assistance, the subject will walk a distance up to 100 feet and transition in and out of chairs 100% of the time. The subject is currently walking with minimal assistance 100% of the time up to 100 feet and can transition in and out of her chair with assistance.
- 3) Given a washcloth, garbage can, adaptive silverware, and stand by assistance, the subject will complete the mealtime routine independently. The subject tends to throw food or drinks during meals. She eats with her fingers, and refuses to use the adaptive silverware. When the subject is given the chance to wash or throw her garbage away, she often reacts with inappropriate behavior.

#### *Research Design, Instrumentation, and Data Collection*

The first step was to operationalize the most problematic behaviors as target behaviors. To aid in defining the problem behavior, a cumulative record review, parent interview, and teacher interview were completed by the investigator to gain in depth information about the subject's medical, educational, and emotional history. All the information obtained from the cumulative record review and the parent and teacher



interviews was compiled and analyzed to operationally define the problem behavior that the subject was exhibiting. Two behaviors were identified as target behaviors, verbal resistance and physical resistance. Verbal resistance included any of the following: screaming, fussing, or whining. Physical resistance included any of the following: hitting, throwing, biting, or eating objects.

In order to measure these target behaviors, interval recording forms were developed (see Appendix A) (Kerr & Nelson, 2006). Interval recording was selected because the teacher interviews showed that the target behaviors were fairly present. Interval recording allows school staff to observe during a specified period for the presence or absence of a behavior. The observation period is broken into smaller time segments or intervals where the observer simply marks the interval for the presence of the behavior during the interval segment. For this study, the researcher broke each observation period into a series of five minute intervals, and the presence or absence of the target behaviors were recorded for each interval. Therefore, the investigator was able to determine the frequency of intervals in which the target behaviors were present.

The researcher and school team used an alternating treatment design (Cooper et al., 2007) to determine whether they were successful and effective with this child. This design is also known as an "ABC" design. "A" represents the baseline phase where measurements of the target behaviors were assessed prior to intervention. The baseline phase was one week, and during this week, the subject was observed on different days throughout the week from 7:45-9:45 am or from 12:00-2:00 pm to record the presence of the problem behavior using interval recording observation forms (Kerr & Nelson, 2006).



While baseline was being established, an FBA was also being conducted (see *FBA and BIP* below).

After the completion of both the baseline measurement and FBA, a BIP was developed for the child from the summary statement of the FBA. In this alternating treatment research design, "B" represents the first phase of intervention using the strategies documented in the BIP. During this first phase of intervention, measurement of the problematic behavior continued to be recorded using interval recording in observation periods from 7:45-9:45 am or from 12:00-2:00 for six weeks.

After six weeks, the plan was then reviewed and modified. After the BIP was modified, the team entered the "C" phase, representing the second intervention phase with modification. Again, measurement of the target behaviors continued to be collected in the "C" phase using interval recording in observation periods from 7:45-9:45 am or from 12:00-2:00. Data continued to be collected for three weeks during this "C" phase. Once all data from the "A," "B," and "C" phases was collected it was analyzed (see *Data Analysis* below).

#### *FBA and BIP*

There were several assessment techniques used for the FBA. Indirect measures included a parent (see Appendix B) and teacher interview (see Appendix C). The parent interview included questions related to the child's background information, setting events, and general parenting questions (O'Neill et al., 1997). The parent interview also included questions on the child's behavior, triggers, and maintainers. The teacher interview included questions related to the teacher's impressions of the child's behavior, how severe it was, and how often it happened. The teacher interview also included



questions on trigger events, maintaining consequences, and the suspected function of the child's problem behavior.

Direct assessment techniques for the FBA included an analysis of the interval recording for the baseline data (see Appendix D). In addition to recording the presence or absence of the target behaviors, the observers also recorded what was happening in the environment when the behaviors occurred (antecedents) and also what happened after the behavior occurred (maintaining consequence).

Once the interviews and baseline data was analyzed, the principle investigator and the school district team developed a summary statement of the problem behavior that included information about the antecedents, maintaining consequences, and functions of the problem behavior. The summary statement can be found in Appendix E. Setting events for the subject included her diagnosis, a lack of sleep at night, medication, language processing issues, and her attachment to her brother. The antecedents to the subject's problem behavior were proximity to school, the first hour of school, teacher's requests for her to work, separation from her brother, desire for interaction, and transitioning. The consequences to the subject's problem behavior were that she could listen to music, play with the toys she wanted to, the required work was put away, and she received the interaction she desired. The functions of the subject's problem behavior were that she was then allowed to avoid or escape undesirable tasks to obtain desirable tasks, and she was trying to express herself which resulted in her obtaining the desired attention or acceptance that she wanted.

The summary statement and all of the information obtained from the FBA was then analyzed by the principle investigator and the school district team to develop a



Behavioral Intervention Plan (BIP) to reduce the frequency of the occurring problem behavior. When developing the BIP, the principle investigator manipulated the summary statement to form a competing behavior model that included a replacement behavior that was incompatible with the problem behavior, but served the same function. The competing behavior model can be found in Appendix F. Because one of the functions of the subject's problem behavior was to escape or avoid undesirable tasks such as school work, and school work is required, the replacement behavior chosen was to give the subject two choices for what activity she wanted to do. The subject was required to work five minutes on an activity of her choice and was then rewarded with a treat or a book she enjoyed. The other function of the subject's problem behavior was that she was attempting to receive the interaction she desired. A replacement behavior was to give the subject the words for what she was attempting to communicate by "tracking" her.

Strategies were then developed for the setting events, antecedents, and consequences that would make the problem behavior irrelevant, inefficient, and ineffective. The strategies that needed a script or a written procedure were written as the key routines. The replacement behavior, strategies, and key routines were then combined and written to form the BIP (see Appendix G). The strategies that were selected are as follows:

- 1) The subject was given a picture schedule to prompt her to her activities that were presented in a first work, then reward format.
- 2) The subject was given two choices for activities to do during work time.
- 3) The subject was transitioned out of the room to take a walk or run an errand before her brother was to leave the room.



4) The subject did her work at a table in the corner to decrease distractions and avoid table tipping.

5) The subject received a time-out when the problem behavior would not cease.

After 6 weeks of the first implementation of the BIP in phase "B", the plan was reviewed and modified for phase "C" of the intervention (see Appendix H). Changes in the modified BIP include: the subject was required to work for 7 minutes instead of the previous 5, the tasks the subject was required to complete were broken into smaller segments where the subject was rewarded for completion of each segment of the task, and a different aid was assigned to feed the subject lunch because the subject was presenting the problem behaviors with the previous aid. With the initial implementation of the BIP, the subject's classroom staff was inconsistent in their efforts with the subject. Therefore, the BIP was revised in order to ensure staff consistency with the subject.

#### *Data Analysis*

All data from the interval recording in all three phases was graphed using EXCEL. Once the data was graphed, the method of visual analysis could be used to determine change in the presence of the target behaviors.

Although there are numerous statistical methods available to use with single-subject research designs, visual analysis is currently the most commonly used (Cooper et al., 2007). Visual analysis is one of the most commonly used methods for various reasons. Baer found that visual inspection produces lower incidences of Type I and Type II errors (Cited in Cooper et al., 2007). Visual analysis allows you to see if the behavior has increased or decreased; unlike other statistically methods that only tell you if the behavior change was statistically significant (Cooper et al., 2007). Visual analysis also



allows you more flexibility in the experimental design because it does not use statistical analysis which require data sets to “conform to predetermined criteria,” therefore leaving no room for flexibility in the research design (Cooper et al., 2007, p. 250).

The visual analysis technique of *trend lines* was used. By using trend lines on a graph, the direction and degree of the trend in multiple data points can be visually represented by adding a straight line through the data (Cooper et al., 2007). For this case, an overall trend line was drawn in from the first data point in baseline to the final data point in phase “C.” This trend line was used to determine overall direction and degree of change.

A second visual analysis technique of *mean level lines* were used for the three different phases of this treatment design. Mean level lines are horizontal lines that are drawn through data points to compare the overall average level between conditions or phases of the treatment design (Cooper et al., 2007). Mean level lines allow a visual representation of the average level of displayed behavior to determine whether there has been a change in the level. Results from the visual analysis are described in the next chapter.



## Chapter IV: Results

This chapter will outline results of the visual analysis for the two problem behaviors: verbal resistance and physical resistance.

### *Analysis of Verbal Resistance*

#### *Mean Level Lines of Verbal Resistance*

Using the techniques of visual analysis, specifically mean level lines, the data collected on the problem behavior of verbal resistance was analyzed (see Figure 1). Mean level lines were drawn through the data points of each phase in the research design. The mean level line for the baseline phase is at 39%. This indicates that, on average, 39% of the intervals during baseline contained verbal resistance.

The mean level line for phase "B," the first intervention phase, is at 32%. This indicates that, on average, 32% of the intervals during the first intervention phase contained verbal resistance. Once intervention started there was a 7% drop in the number of intervals containing verbal resistance, when compared to baseline.

The mean level line for phase "C," the second intervention phase, is at 27%. This indicates that, on average, 27% of the intervals during the second intervention phase contained verbal resistance. After the plan was modified, there was a further 5% decrease of intervals containing verbal resistance. When further compared to baseline, there was an overall 12% decrease of intervals containing verbal resistance.



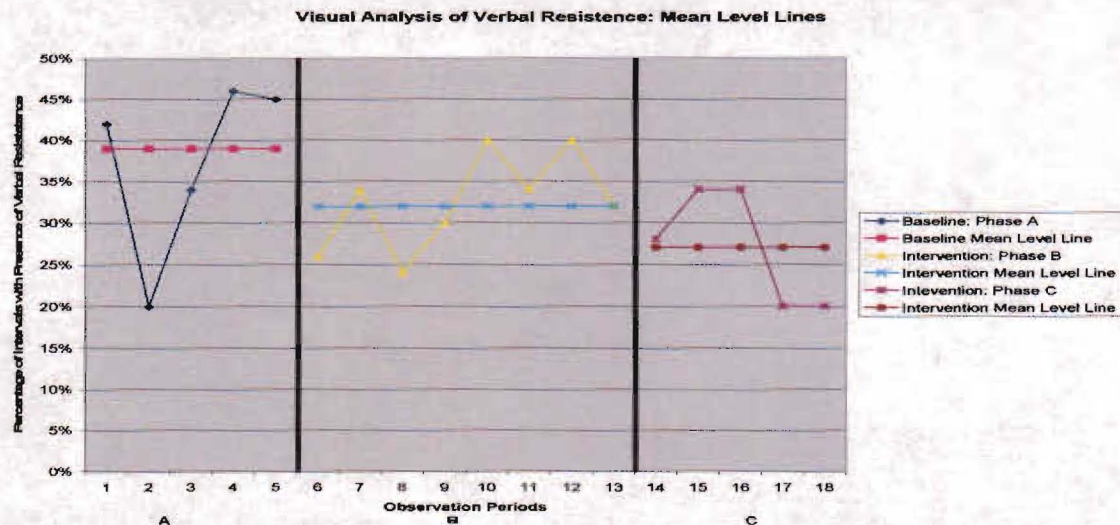


Figure 1

### *Trend Lines of Verbal Resistance*

Using the techniques of visual analysis, specifically trend lines, the data collected on the problem behavior of verbal resistance was analyzed (see Figure 2). To determine the overall direction and degree of change, an overall trend line was drawn in from the first data point in baseline to the final data point in phase “C.” The direction of the trend line is negative, indicating that there is an overall trend of verbal resistance decreasing. As shown in Figure 2, the degree of change is approximately 9% from baseline to the final phase of intervention.



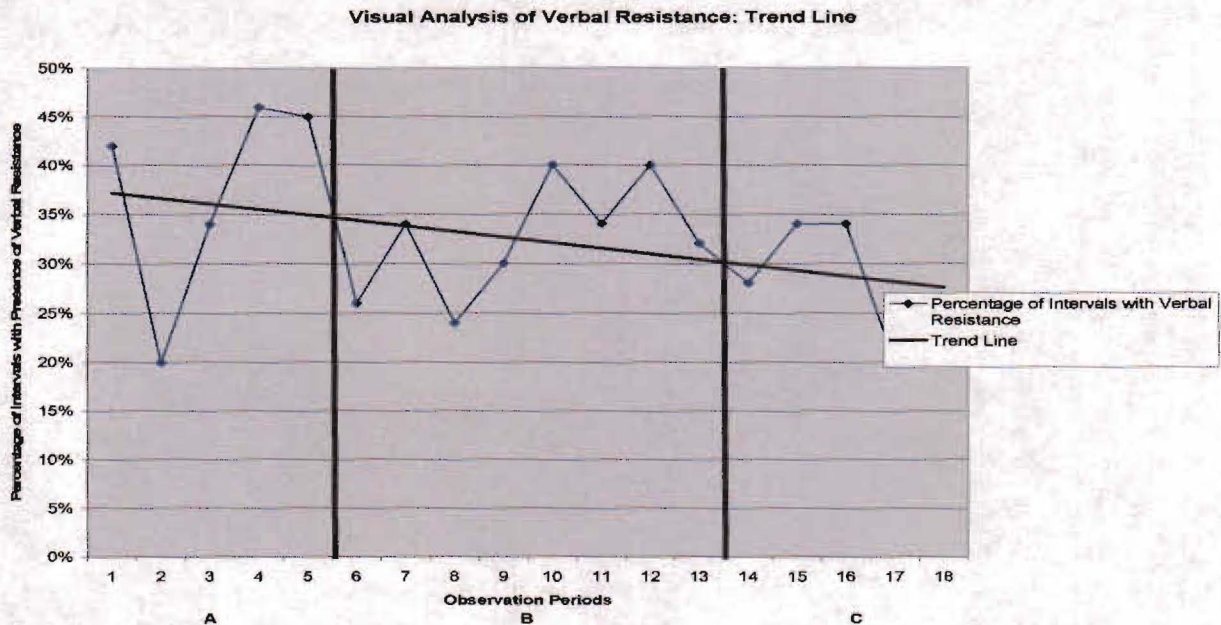


Figure 2

### *Analysis of Physical Resistance*

#### *Mean Level Lines of Physical Resistance*

Using the techniques of visual analysis, specifically mean level lines, the data collected on the problem behavior of physical resistance was analyzed (see Figure 3). Mean level lines were drawn through the data points of each phase in the research design. The mean level line for the baseline is at 24%. This indicates that, on average, 24% of the intervals during baseline contained physical resistance.

The mean level line for phase "B," the first intervention phase, is at 6%. This indicates that, on average, 6% of the intervals during the first intervention phase contained physical resistance. Once intervention started there was an 18% drop in the number of intervals containing physical resistance, when compared to baseline.

The mean level line for phase "C," the second intervention phase, is also at 6%. This indicates that, on average, 6% of the intervals during the second intervention phase



contained physical resistance. After the plan was modified, there was not a decrease of intervals containing physical resistance. Modification of the plan did not seem to have an affect on physical resistance.

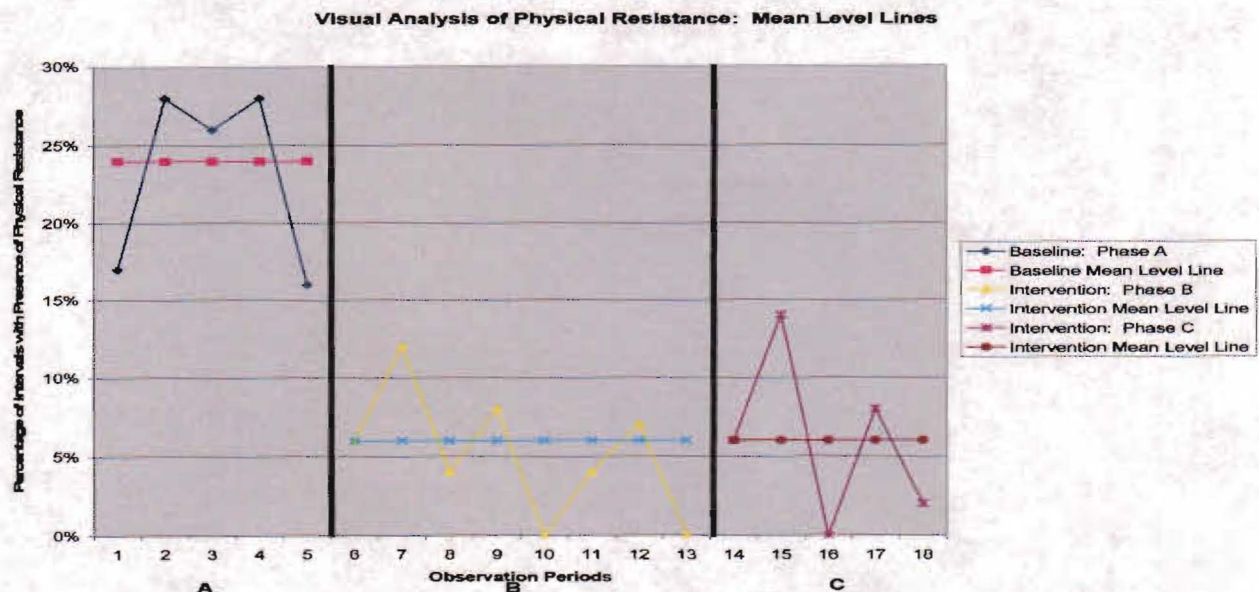


Figure 3

#### *Trend Lines of Physical Resistance*

Using the techniques of visual analysis, specifically trend lines, the data collected on the problem behavior of physical resistance was analyzed (see Figure 4). To determine the overall direction and degree of change, an overall trend line was drawn in from the first data point in baseline to the final data point in phase “C.” The direction of the trend line is negative, indicating that there is an overall trend of physical resistance decreasing. As shown in Figure 4, the degree of change is approximately 20% from baseline to the final phase of intervention.



Visual Analysis of Physical Resistance: Trend Line

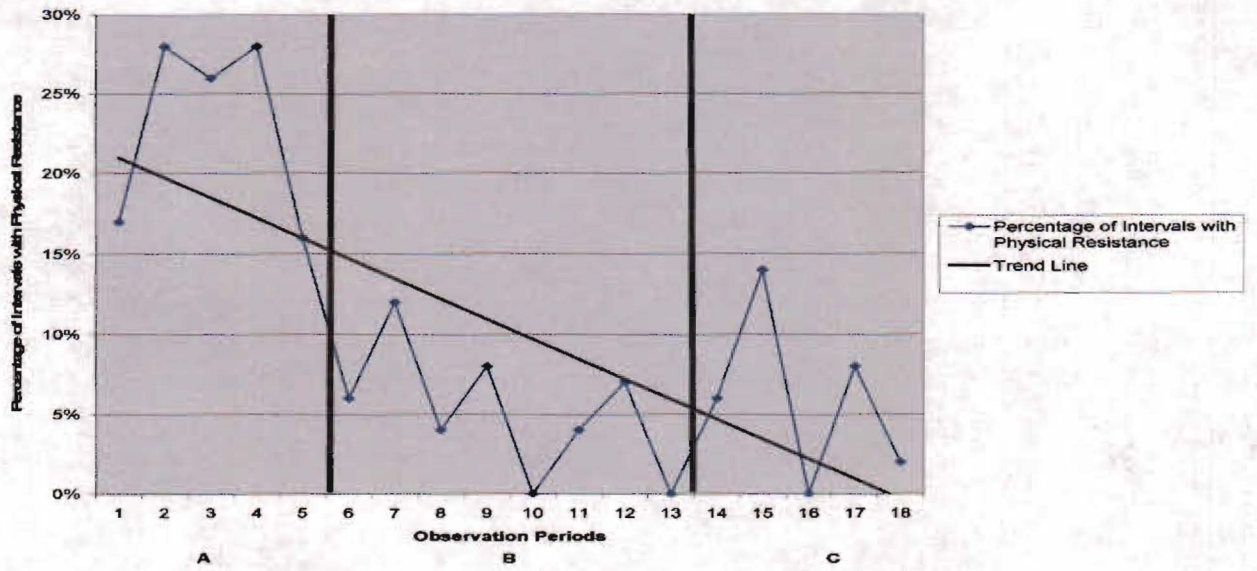


Figure 4



## Chapter V: Discussion

This chapter will include an analysis of the proposed research questions. It also includes a discussion of this study, implications for future research, and implications for practice.

### *Research Questions*

*1) Does conducting an FBA on a child with cognitive disabilities help in the development of an intervention plan?*

In the current study, conducting an FBA on the subject with cognitive disabilities helped considerably when developing the intervention plan. Prior to this FBA/BIP process, several interventions had been tried and eliminated. These interventions were not necessarily based on assessment, only on the teacher's repertoire of knowledge and skill. Conducting the FBA allowed the team to think more deeply about the subject's misbehavior and the functions of it. In turn, it allowed the team to create interventions individualized to the subject.

The indirect measures used for the FBA, which were the parent and teacher interviews, aided in developing a comprehensive picture of the subject's past and present functioning. The indirect measures also gave insight into setting events, triggers, and maintainers of the subject's problem behaviors. The direct measure used for the FBA, which was an analysis of the interval recording sheets used for collecting baseline data, also gave insight into setting events, triggers, and maintainers of the subject's problem behaviors. All of the information that was collected from the FBA was directly applicable to the development of the intervention plan or BIP. Without the completion of the FBA, it would have been nearly impossible to develop a BIP for the child because the triggers



and maintainers to the subject's problem behavior would not have been known. By collecting that information, the BIP made the problem behavior irrelevant, ineffective, and inefficient for the child, thus producing a successful intervention plan.

*2) Do interventions based on an FBA actually prove to be successful for a child with a cognitive disability?*

As shown previously in Figures 1, 2, 3, and 4, the subject's problem behaviors of physical and verbal resistance reduced considerably after the implementation of the BIP. Mean level lines show a 12% decrease in verbal resistance and an 18% decrease in physical resistance. Trend lines for both verbal and physical resistance are negative indicating on overall improvement.

Beyond simply showing a reduction in the occurrence of problem behavior, the interventions included in the BIP were geared at teaching the subject more appropriate ways to communicate her wants and needs. Because positive communication was not measured, the impact of the plan on this cannot be determined. Yet, qualitative reports from the teacher indicate some slight improvements. Furthermore, the interventions also assimilated the subject into working for 7 minutes on a daily basis which was not happening before the implementation of the intervention. Even though it was not measured quantitatively, there was an obvious positive change in the amount of 'work' completion of the subject.

#### *Discussion of Study*

The current study was fairly successful during completion of the FBA, development of the BIP, and implementation of the BIP. Although the BIP needed to be revised and implemented for a second cycle of intervention, the problem behaviors still



decreased from phase "A" to phase "C". One of the main issues that resulted in the BIP needing to be revised was the inconsistency of the first implementation of the BIP by the subject's classroom staff. The TA's in the classroom were knowledgeable of the BIP, but were not consistent in their efforts with the subject. If the staff would have been more consistent in the implementation of the initial BIP, the change in the subject's problem behaviors probably would have been more dramatic. The main point of revision was to ensure staff consistency.

Although interventions geared at teaching the subject pro-social communication skills were included in the BIP, it is hard to say whether these skills were actually learned by the subject. A measure of the subject's pro-social communication attempts would have been beneficial to include in the study to assess whether the subject was actually learning the skills which resulted in a reduction of the problem behavior, or whether the subject's problem behavior reduced as an effect of another variable. Reduction of the subject's problem behavior was a positive effect from the implementation of the BIP, but the overall goal of the school staff was to teach the subject socially appropriate ways of communication thus reducing her inappropriate ways of communication and problem behavior.

#### *Implications for Future Research*

The purpose of this case study was to determine whether conducting an FBA on a child with cognitive disabilities helps in the development of an intervention plan, and if interventions based on an FBA actually prove to be successful for a child with a cognitive disability. Although this was a single-subject research design and the findings of this study cannot be directly applied to general populations, it is hoped that this research will



guide future research on the use of FBAs and BIPs with the cognitive disability population. It is also hoped that future research will attempt to discern if conducting an FBA actually makes an intervention plan successful or if an intervention plan can be developed without conducting an FBA. In the present study, it was difficult to determine if the FBA actually made the intervention plan successful or if the intervention plan could have been successful without the development of an FBA. Therefore, in future research it would be helpful to have multiple case studies where intervention plans are developed with and without the completion of FBAs to determine the effectiveness of the BIPs.

#### *Implications for Practice*

As observed in this present study, the subject's school staff was not optimistic that the subject's problem behaviors would change. The staff felt as though they had tried everything to extinguish the problem behaviors and that nothing would work. The FBA and BIP provided the staff with a way to solve the problem behaviors when they thought it was not possible. FBAs uncover many aspects of the child and their behavior that were previously not examined. Including these hidden aspects gives a complete and comprehensive picture of the child and the reasons behind problem behaviors. FBAs allow for complex and effective BIPs to be developed and easily implemented in the school setting. BIPs also provide consistency in implementation between school staff because the BIP is not open to individual interpretation, thus providing uniform consequences for the child who exhibits problem behaviors. It is not only the best practice standard in education to complete an FBA when students' behavior problems are impeding the learning of themselves or others in a school setting, but FBAs are also



critical in the development of a BIP. This study is evidence of the effectiveness of the use of FBAs to develop effective BIPs for use in the school setting.



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Appendix A: Interval Recording Form

Interval or Time Sampling Recording

Student Name: \_\_\_\_\_

DOB: \_\_\_\_\_

Date and Time of Observation: \_\_\_\_\_

Operational Definition of Behavior: \_\_\_\_\_

\_\_\_\_\_

Each Interval/Segment equals: \_\_\_\_\_ (write them in upper boxes)


Activities →


Activities →


Activities →

$$\text{RATE} = \frac{\text{Number of Intervals/Segments with Behavior Present}}{\text{Total Number of Intervals/Segments in Observation}} = \underline{\hspace{2cm}}$$



## Appendix B: Parent Interview Form

**Parent Interview**By \_\_\_\_\_  
Date \_\_\_\_\_

Please use a black ink to fill it out.

Child/Age \_\_\_\_\_ Parent(s) \_\_\_\_\_

Interviewer \_\_\_\_\_ Other people present: \_\_\_\_\_

**QUESTIONS TO THE PARENT ABOUT  
BACKGROUND INFORMATION, SETTING EVENTS, and PARENTING**

1. What are your child's current medical/physical or mental health diagnosis? Is she/he on any medication?
  
  
  
  
  
  
  
  
  
  
2. What is your child's typical day like? Schedule?
  
  
  
  
  
  
  
  
  
  
3. Tell me about your child's sleep patterns and eating routines.
  
  
  
  
  
  
  
  
  
  
4. Could you please tell me all significant life changes or stressors that you and/or your family have experienced this past year? I mean things like job changes, deaths or births in the family, divorces, illnesses or any legal issues.
  
  
  
  
  
  
  
  
  
  
5. Please describe your discipline techniques. Which are effective and which are ineffective?







## Appendix C: Teacher Interview Form

## Teacher Report

By \_\_\_\_\_

Date \_\_\_\_\_

### TEACHER IMPRESSION OF THE CHILD'S BEHAVIOR

1. What are the student's strengths?
2. Please fill out the following chart on the child's undesirable behavior. When describing the child's behavior, please be specific. In other words, write the *actions* the child is *exhibiting*. You may lump several behaviors into a summary term, but then please describe/define it further (see examples). Please select those behaviors which are the most problematic for you.

<b>Behavior</b> Actions the child is exhibiting. May lump into a summary term, but then describe further.	<b>Frequency</b> How many times per hour/day on average?	<b>Duration</b> How long does it last?	<b>Severity</b> 1= not severe 3= average 10= most difficult you've seen	<b>Skill Deficit</b> He/she doesn't know how to behave appropriately. OR <b>Performance Deficit</b> He/she knows how, but isn't performing appropriately.
<b>Example 1:</b> Aggression- Hits, kicks, punches, pushes adults and kids, especially smaller kids.	About 3x per day	NA	8	Performance
<b>Example 2:</b> Resistant - Refuses to following teacher directions or follow routine of classroom by yelling, ignoring, and running.	About 1x per hour	About 5 minutes	6	Skill
1.				
2.				

2. Describe the student's behavior with regards to . . .

Social interaction w/ kids & adults	Unstructured Times (hall, transitions, lunch, recess)	Structured Times (desk, seat-work, lecture, work-time)



## TEACHER IMPRESSION OF TRIGGER EVENTS

1. At school, what *times of day, activities, or situations* . . .  
Are difficult behaviors most likely to occur?

Least likely to occur?

2. At school, with which *people* . . .  
Are difficult behaviors most likely to occur?

Least likely to occur?

3. What is the one thing you could that would most likely make the undesirable behavior occur?

4. Briefly describe how the child's behavior would be affected if . . .  
You asked him/her to perform a difficult task.

You interrupted a desired activity.

You unexpectedly changed the routine.

He/she wanted something but wasn't able to get it.

You didn't pay any attention to the child or left him/her alone for awhile.



## TEACHER IMPRESSION OF MAINTAINING CONSEQUENCES

1. For *each* of the undesirable behaviors you have listed/described in the chart above, how are you, other adults, and other children responding?

Behavior (from chart above)	How are the adults responding?	How are the kids responding?	Do you think the child feels an emotion when/after engaging in the behavior?
1.			
2.			

2. What discipline techniques sometime work for this child?

3. What discipline techniques seem to escalate the behavior?

## TEACHER IMPRESSION OF FUNCTION

Please hypothesize what need the child is getting met or what function the behavior is serving from the list below.

- Attention (the child may be seeking positive or negative attention from peers or adults).
- Escape or avoidance (the child may want avoid an activity, interaction with a person(s), or any unpleasant situation).
- Justice or revenge (the child may be attempting to get back at an individual or group).
- Acceptance and affiliation (the individual may be seeking to impress another or feel included in a group).
- Power and control (he/she wants to dominate his/her environment just to feel power).
- Expression of self (the child is announcing his/her individuality and independence).
- Access to desired activities or rewards (the child gets to participate in desirable/enjoyable/fun activities, items, or privileges by misbehaving).
- Sensory input (the child is gaining sensory regulation by his behavior).



Appendix D: Interval Recording Data

Interval or Time Sampling Recording

Student Name: \_\_\_\_\_

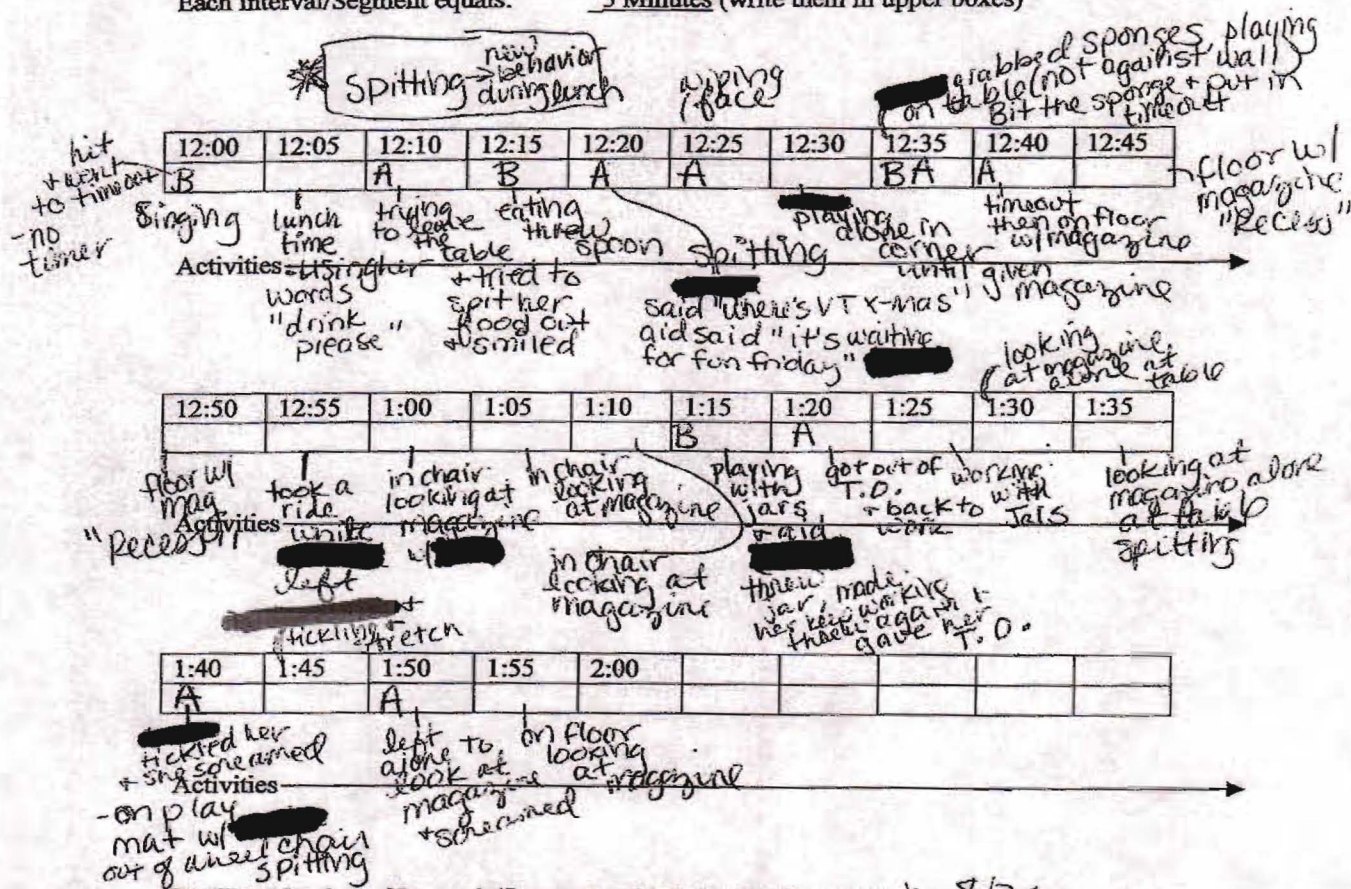
DOB: \_\_\_\_\_

Date and Time of Observation: Tuesday February 6, 2007 12:00-2:00

Operational Definition of Behavior: A: Screaming/Fussing/Whining

B: Hitting/Throwing/Eating Objects/Biting

Each Interval/Segment equals: 5 Minutes (write them in upper boxes)



RATE =  $\frac{\text{Number of Intervals/Segments with Behavior Present}}{\text{Total Number of Intervals/Segments in Observation}}$

A =  $\frac{8}{25} = .32$

B =  $\frac{4}{25} = .16$





## Appendix E: Summary Statement

**FBA Summary Statement**

Setting Events	Predictors (triggers)	Problem Behavior	Maintainers	Function
<ul style="list-style-type: none"> <li>-Lack of sleep at night</li> <li>-Medication</li> <li>-Language processing issues</li> <li>-Cerebral Palsy</li> <li>-Epilepsy</li> <li>-Cognitive Disability</li> <li>-Inconsistent schedules of other family members</li> <li>-Has been in the same classroom as her brother since he was three.</li> </ul>	<ul style="list-style-type: none"> <li>-Proximity to school</li> <li>-First hour of school day.</li> <li>-Teacher's requests for her to work</li> <li>-Table work placed in front of her (coloring)</li> </ul>	<p>Problem behavior that includes one or more of the following:</p> <ul style="list-style-type: none"> <li>-Screaming, whining, and/or fussing.</li> <li>-Hitting, throwing, eating objects, and/or biting.</li> </ul>	<ul style="list-style-type: none"> <li>-She gets to listen to her music.</li> <li>-She gets to play with the toys/books she wants to play with.</li> <li>-She gets food in the am only when she's engaged in the problem behavior.</li> <li>-The required work is put away.</li> </ul>	<p><u>Avoid or escape</u> undesirable tasks. <u>Obtain</u> desirable tasks.</p>
	<ul style="list-style-type: none"> <li>-Brother leaving CD classroom, around 1:00</li> <li>-Situation where she needs/wants some interaction.</li> <li>-Transitions between activities—often left by self a bit.</li> </ul>	<p>Side behavior—asking where's daddy, where's Veggietales, where's Brother?</p>	<ul style="list-style-type: none"> <li>-Teachers give her desired verbal interaction. Responding to her questioning or fussing.</li> <li>-Teachers attempt to comfort or distract her.</li> </ul>	<p><u>Self-expression</u>: The subject is stuck in this way of communicating her discomfort. Furthermore, she is using this to communicate even her basic needs (cup example). In response, the teachers are giving her verbal interaction and distraction, ultimately <u>attention/acceptance</u>.</p>



Appendix F: Competing Behavior Model

**Competing Behavior Model**

		<ul style="list-style-type: none"> <li>-Asking appropriately for her desired verbal interaction.</li> <li>-Completing her required daily work without the presence of problem behavior.</li> </ul>	Obtain desired interaction and attention for completing work.
<ul style="list-style-type: none"> <li>-Lack of sleep at night</li> <li>-Medication</li> <li>-Language processing issues</li> <li>-Cerebral Palsy</li> <li>-Epilepsy</li> <li>-Cognitive Disability</li> <li>-Inconsistent schedules of other family members</li> </ul>	<ul style="list-style-type: none"> <li>-Proximity to school</li> <li>-Teacher's requests for her to work</li> <li>-Table work placed in front of her (coloring)</li> <li>-Transitions between activities—often left by self a bit.</li> <li>-Brother leaving CD classroom</li> <li>-Situation where she needs/wants some interaction.</li> </ul>	<p>Problem behavior that includes one or more of the following:</p> <ul style="list-style-type: none"> <li>-Screaming, whining, and/or fussing.</li> <li>-Hitting, throwing, eating objects, and/or biting.</li> </ul> <p>Side behavior—asking where's daddy, where's Veggietales, where's Brother?</p>	Avoid or escape undesirable work. Obtain desirable activities. Self-expresses her wants and needs and gains attention/acceptance.
		<ul style="list-style-type: none"> <li>-Communicating <i>in some form</i> to receive the verbal interaction that she desires.</li> <li>-Requesting to change daily activities or chose between two activities.</li> <li>-involvement in a rewards system where she is rewarded for completing every assignment by food/music.</li> </ul>	



## Appendix G: Behavior Intervention Plan

**Behavior Intervention Plan**

## Picture Schedule

- The subject will have a picture schedule in either a booklet form or a key-ring. The TAs will use this to prompt her to her activities.
- Furthermore, with the picture schedule, everything will be presented as “**First \_\_\_\_, then \_\_\_\_.**”

## Work Time

- We are trying to get the subject’s brain and body used to five minutes of work at a time.
- The subject will have a designated work station with a desk up against the wall so it cannot be pushed. The wall should be free of items that can be ripped down.
- During the subject’s scheduled work time . . .
  - A. The subject will be taken to her work station.
  - B. The subject will be given two activities that the TA/teacher selects. “**you may do \_\_ or \_\_.**” She can be presented these choices either by photo cards of the activity or by actually bringing out the activities out to show her. If she doesn’t select, the teacher/TA will select for her. “**She is not sure. I will pick \_\_\_\_.**”
  - C. The visual timer will be set for 5 minutes.
  - D. The TA/teacher will explain “**First, work (maybe describe the work, i.e. coloring), then book or cracker. Time is starting.**”
  - E. The subject will not be able to escape the task. It will not be removed because of her resistance. Ignore the fussing and screaming. Do not get into a power struggle with her either. Be calm and just stay with her at the work area.
  - F. If she gets aggressive, see notes for time-out below.
  - G. If at the end of 5 minutes, if the subject is not screaming or showing aggression, say, “**your work time is over. No screaming. No throwing. You get \_\_\_\_ (either book or cracker).**” REMEMBER: even if she screams at the beginning of the 5 minutes, it is okay. It is at the end of the five minutes we are looking at. Teaching her the connection between calm and reward.
  - H. If at the end of the 5 minutes the subject is screaming or showing aggression, say, “**your work time is over. There was screaming/hitting/throwing. No book or cracker this time. We’ll try again next time.**”



### Scheduling the Subject and her Brother's Transitions

- The subject and her brother's transitions will be scheduled so that the subject doesn't see her brother leaving the room.
- To do this, the subject will have "recess" regardless of whether it is outside or just walking the halls. The subject will be told using her picture schedule, "**it is an inside/outside recess day.**"
- At the end of her recess, 1:00, the subject will be taken to the office to greet the secretaries and pick up a small snack.
- She should not return to the room until 1:05, and her brother should be gone.
- The TA who is on her should show her the next picture in her schedule and then move directly into sensory/exercise time with her upon immediate return to the room.

### Dealing with her Questioning (Where's Daddy, Where's brother, Where's Veggietales?)

- These questions will no longer be responded to by giving her verbal feedback about her brother, Daddy, or Veggietales. For example, adults will no longer respond with "Where IS daddy? Daddy is gone." Etc.
- Instead, Teacher/TAs will give her the words for what she is really trying to say. For example, "**You want the milk. You want someone to talk to you. You are trying to say hello to me. You are bored and want some attention.**"
- If the teacher/TA doesn't know what she is trying to say by the questioning, they will simply track her behavior at that moment. For example, "**you are eating your chicken nugget. You are sitting at the table. You have a book.**"

### Dealing with her Screaming/Fussing/Whining

- The first goal is to prevent it. Keep her engaged during her challenging times.
- Then, as soon as you start to see it, try to distract immediately. Get on it quickly.
- If she goes into full-blown screaming, you cannot reinforce it by *then* giving her attention/distraction. At that point, ignoring is what needs to happen. Stay calm and know that it get worse before it gets better.

### Dealing with Aggression

- The following behaviors will warrant a time-out: Throwing, eating work materials, or tipping. If the subject engages in these behaviors . . .
- Say, "**throwing/eating work/tipping the table is against the rules. Time-out.**"
- Take her to the time-out area, as you have been. Did we talk about using the timer? I don't think you should because you are using that with work and I don't want her to think work-time is a time-out.
- When the two minutes is over. Say, "**Time out is done.**"
- Important: Go back to the task. If you don't, you just taught her that time-outs allow her to avoid.



## Appendix H: Revised Behavior Intervention Plan

**REVISED Behavior Intervention Plan****First-Then Language**

- When making transitions or telling the subject her schedule, everything will be presented as “**First \_\_\_\_\_, then \_\_\_\_\_.**”

**Work Time**

- We are trying to get the subject’s brain and body **now used to seven** minutes of work at a time.
- The subject will have a designated work station with a desk up against the wall so it cannot be pushed. The wall should be free of items that can be ripped down.
- During The subject’s scheduled work time . . .

A. **Either at the work station or before the subject goes to the work station,** The subject will be given two activities that the TA/teacher selects. “**You may do \_\_\_ or \_\_\_.**” **She should be presented these choices by actually bringing out the activities to show her.** If the subject doesn’t select, the teacher/TA will select for her. “**You are not sure. I will pick \_\_\_\_\_.**”

B. The visual timer will be set for **7** minutes.

C. The TA/teacher will explain “**First, work (maybe describe the work, i.e. coloring), then book or cracker. Time is starting.**”

D. **The overall task will be broken down into smaller segments. For every smaller segment the subject completes, she will be rewarded. For example, on a coloring page, there may be five elephants to color. She is rewarded for each one. For rewards, we talked about goldfish crackers or grapes. (We need to be on the lookout for a reward that is reinforcing for her that is non-food. What if you cut the pictures out of a ToysRUs catalog for her to keep in a bag or tape to a piece of paper? She really likes the catalog with toys in it so wondering if giving her the individual pictures would work.)**

E. The subject will not be able to escape the task. It will not be removed because of her resistance. Ignore the fussing and screaming. Do not get into a power struggle with her either. Be calm and just stay with her at the work area.

F. If she gets aggressive, see notes for time-out below.

G. **If at the end of 7 minutes, the subject will again be rewarded for completing the whole 7 minutes.**

**Scheduling the Subject and her Brother’s Transitions**

- The subject and her brother’s transitions will be scheduled so that she doesn’t see her brother leaving the room.
- To do this, the subject will have “recess” regardless of whether it is outside or just walking the halls. The subject will be told using her picture schedule, “**it is an inside/outside recess day.**” At the end of her recess, 1:00, the subject will be **taken on a walk or** to the office to greet the secretaries and pick up a small snack. She should not return to the room until 1:05, and her brother should be gone.



- In the morning, the subject won't go to the room until her brother has left.

#### Dealing with her Questioning (Where's Daddy, Where's brother, Where's Veggietales?)

- These questions will no longer be responded to by giving her verbal feedback about her brother, Daddy, or Veggietales. For example, adults will no longer respond with "Where IS daddy? Daddy is gone." Etc.
- Instead, Teacher/TAs will give her the words for what she is really trying to say. For example, **"You want the milk. You want someone to talk to you. You are trying to say hello to me. You are bored and want some attention."**
- If the teacher/TA doesn't know what she is trying to say by the questioning, they will simply track her behavior at that moment. For example, **"You are eating your chicken nugget. You are sitting at the table. You have a book."**

#### Dealing with her Screaming/Fussing/Whining

- The first goal is to prevent it. Keep her engaged during her challenging times.
- Then, as soon as you start to see it, try to distract immediately. Get on it quickly.
- If she goes into full-blown screaming, you cannot reinforce it by *then* giving her attention/distraction. At that point, ignoring is what needs to happen. Stay calm and know that it get worse before it gets better.
- **Difficult Time-Morning: Because the subject has a difficult time in the morning with screaming/fussing/crying, the goal is to keep her very busy and distracted to prevent the crying. The following activities were identified as distracters: Bouncing on a ball, walking outside, scooter board, wagon ride.**

#### Dealing with Aggression

- The following behaviors will warrant a time-out: Throwing, eating work materials, or tipping. If the subject engages in these behaviors . . .
- Say, **"throwing/eating work/tipping the table is against the rules. Time-out."**
- Take her to the time-out area, as you have been.
- When the two minutes is over. Say, **"Time out is done."**
- Important: Go back to the task. If you don't, you just taught her that time-outs allow her to avoid. **Don't start the time over. Instead, just go back for the time which is remaining.**
- **Difficult Time-Lunch: the subject seems to see one TA as someone to 'play' with. As such, she likes to engage the TA in 'games' during lunch—throwing food, etc. Therefore, the teacher will reassign a different lunch partner to the subject. We will also be on the lookout for a cup that either suctions to the table or for a plastic mug with a handle the TA can hold while the subject drinks.**