# INVESTIGATING THE DEGREE TO WHICH BEHAVIOR MANAGEMENT METHODS ARE USED IN THE CLASSROOM: A COMPARISON STUDY OF TEACHER REPORT VERSUS INDEPENDENT OBSERVATION.

#### A DISSERTATION

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#### **ABSTRACT**

The purpose of the current research was to explore any differences or correlations between self-reported teacher use of behavior management strategies and the use observed by an independent observer. The study examined seven teachers in a suburban central New Jersey town by observing three separate times and giving out a survey with similar questions to the structured observation. Behavior management strategies highlighted were individual positive reinforcement, group positive reinforcement, planned ignoring, redirection, time out, and punishment. In order to analyze the data, correlational analyses were run. First, individual teachers' responses were correlated with independent observations, finding that about half of teachers' self-reports highly correlated with independent observations. Second, teacher self-reports were correlated by behavior management strategy with independent observations yielding mixed results. The study was exploratory in nature and more research with larger and more varied populations is needed.

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#### Chapter I

#### **History**

Education in the United States, like the country itself has changed greatly since our independence, so much so that it would hardly be recognizable to our founding fathers. In the early 1800s, education reflected the need of the society in which communities were isolated and rural. Most children did not receive formal education, and when they did, they terminated their education at a young age to begin life in the work place, typically farming or working as an apprentice. Education varied depending on location, and there was no unification of the system, providing for large discrepancies in its delivery (Osgood, 2008). During the mid 1800s education was under reform as the pre-Progressive Era meant more government interest in the lives of children that ultimately led to an increase in formal schooling. With the formalization of education came new challenges regarding how to educate the disabled. Massachusetts was a state at the forefront of educational reform, establishing a state board to oversee public education in 1837. Connecticut was soon to follow in 1838. In 1848, Massachusetts again altered education by establishing a public school system supported by taxpayers (Winzer, 2009).

The early to mid 1800s saw the advent of schools for the disabled developed by Thomas Gallaudet and Samuel Gridley Howe. Gallaudet obtained funds to begin the first school serving the deaf in America. He coordinated the endowment of five thousand dollars from the Legislature of Connecticut to start the school (which opened in 1817). This financial arrangement represented the first public money ever given to a benevolent institution (Gallaudet, 1888). Howe's focus was on educating the blind when he started

the Perkins School for the Blind in 1832 in Boston (Hall, ND). Though these two devoted their lives to establishing education and advocating for the disabled in the 1800s, there was an unfortunate change in the early 1900s, when society as a whole changed its view towards education of the disabled. There became less of a focus on educating the disabled, and more of an emphasis on isolation due to a belief that there was a malevolent nature to disability (Osgood, 2008). Before the late 1800s, children with disabilities were mainly institutionalized; however, the focus in these institutions was on education. In the late 1800s and early 1900s there appears to be some discrepancy as to attitudes towards educating the disabled. Some say there was a shift made to custodial care in these times (Osgood, 2008). Winzer states, the institutionalization led to "the mixture of protection of children and the protection of society from those with disabilities" (2009). However, Levine and Wexler (1981) claim that progressive states in this time period were establishing requirements that the mentally retarded be educated by local schools. They claim that "progress was constant on the state level."

Though no major changes were made to public education for the disabled between 1940 and 1960, there was a rise in public awareness, which led to an overall forward progression. Harrison Allen Dobbs, a professor at Louisiana State University published articles in the *Peabody Journal of Education*, addressing the fact that he did not believe disabled children were handicapped. A most influential quote by Dobbs stated "all children, whatever their characteristics, should command society's fullest respect and aid" (Osgood, 2008). Additionally, Dobbs wrote about educating and helping troubled children, not necessarily with physical disabilities, but with emotional difficulties and delinquency (Hobbs, 1958). Dobbs (1950) emphasized the potential of all children

stating, "It is sounder to emphasize undeveloped potentialities of the total individual than it is to overstress inherent or acquired limitations." In an exhaustive review of all publications of the Peabody Journal of Education from 1940 through 1960, less than ten articles were found regarding education of the disabled, with the majority focusing on cognitive impairments. About half of these articles were written by Dobbs (1950, 1951, 1952, 1953, 1958). Three articles referred to the need for individualized education, using reinforcements to engage students, and using more engaging lessons (Adams, 1951; Jaggers, 1947; Smith, 1951). Humphrey (1956) wrote about how the notion of educating everybody would mean "advancement for none." Though this was the only blatant "antieducation for all" sentiment found, there was a general lack of scholarly material on the advancement of education for the disabled. For example, there were more articles written during this time period about music, art, and religion than about how to educate the disabled. It was not until 1954 that the pivotal decision was made in *Brown v. Board of* Education, stating that schools could not discriminate based on race. This landmark court decision laid the groundwork for the societal mandate of equal schooling for all (Levine, 1997).

The most drastic of changes in regards to not only special education, but also civil rights as a whole, occurred from 1960 to 1980. In the 1960s, President John F. Kennedy, publicly announced that his sister possessed a cognitive impairment, and that he was convening the first *President's Panel on Mental Retardation* in 1971 (Levine & Wexler, 1981). Again, even as public and political interest in the topic grew, there was still segregation between handicapped and non-handicapped students. Two pivotal cases were brought to the judicial system regarding the unconstitutional lack of education for

the handicapped. In 1971, *Pennsylvania Association for Retarded Children v.*Commonwealth of Pennsylvania and the 1972, Mills v. District of Columbia Board of Education found that exclusionary practices were occurring in the public education system, either giving inappropriate education, or denying them education altogether.

Prior to these two court decisions, handicapped children typically received one of two fates: (1) some were placed in special programs, but never actually received instruction, and (2) some were denied on the basis that they would become behavioral or disciplinary problems (Ballard, Ramirez, & Weintraub, 1982; Levine & Wexler, 1981; Turnbull & Turnbull, 1978). Even though by 1975, all but two states had some sort of requirement regarding the education of the handicapped (Ballard, Ramirez, & Weintraub, 1982), there was still question as to the consistency of the application of that education. Handicapped students were still segregated in classrooms, and generally, once classified as requiring special education, they were never moved out of a special education setting (Turnbull & Turnbull, 1978).

The public outcry and political attention that followed first led to the amendment of the Elementary and Secondary Education Act with Title VI forming the Bureau of Education for the Handicapped in 1966 (Levine & Wexler, 1981). In 1970, Title VI was changed to the Education for Handicapped act, which dedicated more funds and grants to research focused on educating the disabled, but did not change the definition of handicapped (Levine & Wexler, 1981). One can see the difficulty with this act in the name itself, as it did not specify the provision of educational rights to <u>all</u> children with disabilities. Finally, the *Education for All Handicapped Children Act* (also known as Public Law or PL 94-142) was signed by President Gerald Ford in November of 1975

(Osgood, 2008; Levine & Wexler, 1981). This law had four guiding principles stating that all students would be entitled to a free and appropriate public education (FAPE), students would be educated in the least restrictive environment, there would be clear procedures for special education, and that federal funds would be added to state and local costs for special education programs (Winzer, 2009; Ornstein & Levine, 1997). From this, the Individual Education Plan (IEP) was developed to decrease federal control over local school systems. In addition to the guiding principles of the public law, PL 94-142 had four main purposes:

(1) to insure publicly funded special education and related services would be available for all handicapped children by no later than 1978, (2) to insure the rights of handicapped children and their parents and guardians, (3) to relieve the special education financial burden of state and local governments and, (4) to assess and insure the effectiveness of efforts to educate handicapped children (Zettel, 1977).

Another emphasis of PL 94-142 was the necessity of communication between school and parents, giving parents a say in decision-making regarding their child (Buscaglia & Williams, 1979; Turnbull & Turnbull, 1978). Additionally, with the increase in communication, came the possibility of action from litigious interest groups and parents who felt that handicapped students' rights were violated, especially regarding what is an "appropriate" placement (Levine & Wexler, 1981).

Though PL94-142 did not intend to place <u>all</u> children with disabilities in general education classrooms, the term "least restrictive environment" confused educators. Many thought that the law was intended to mainstream all children with the aid of

paraprofessionals (Abeson & Zettel, 1977; Winzer, 2009). Though the term "least restrictive" does not mean all children can be placed in general education classrooms, it does prescribe that an attempt be made to place children with disabilities in an appropriate classroom that is the most inclusive possible.

Although PL 94-142 was revised numerous times since its inception, the next major change was its reauthorization as the Individuals with Disabilities Education Act (IDEA) in 1990. With more research occurring regarding the education of students with disabilities, IDEA served to further specify how and why students with disabilities should be included in general education settings. IDEA expanded services and added autism and traumatic brain injury to the categories of eligible disabilities. Additionally, there was an added focus on educating students with disabilities in general education settings (NEA, 2002). Seven years later, IDEA (1997) was again reauthorized when changes were included to protect students whose disabilities manifested themselves in "violent or dangerous behavior." Additionally, IDEA sought to encourage parent participation as well as foster relationships between the schools and parents of children with disabilities (Osgood, 2005). The '97 reauthorization focused on the growing belief that students with disabilities would excel when exposed to the curriculum of their general education peers. Though access to general education was a main component of the '97 reauthorization, it also specified eligibility (students who are experiencing difficulties due to language barriers do not qualify for special education), accommodations and modifications, and incidental benefits (where non disabled students can benefit from services given to disabled students in general settings) (NEA, 2002). The National Education Association (NEA) had concerns and questions regarding the reauthorization of IDEA. The NEA

(2002) cites "(1) developing the Individualized Education Plan, (2) managing paperwork, (3) handling discipline issues, (4) getting appropriate professional development, and (5) communicating with parents" as critical areas of concern. The challenge of addressing discipline issues has been discussed in the literature numerous times as a concern for teachers in educating students with disabilities (Ballard, Ramirez, & Weintraub, 1982; NEA, 2002; Levine & Wexler, 1981; Turnbull & Turnbull, 1978). This, in conjunction with the reported need for appropriate professional development, highlights the need for behavior consultation in school districts. In 2004, the most recent reauthorization of IDEA re-named The Individuals with Disabilities Education Improvement Act (PL108-446) specifically discussed many of these aforementioned issues. Though many of the modifications in this reauthorization dealt with due process, evaluations, and parental rights, there were important modifications made to behavioral discipline. The reauthorization of IDEA in 2004 emphasized the role of assessment and specifically made functional behavior assessments (FBA) a priority in disciplinary actions for students with disabilities. The modification states that if a child is removed from their placement for disciplinary reasons, an FBA must be completed. This mandate was quite important for special education classrooms as classroom staff members routinely struggled with how to best manage behavioral disabilities. IDEIA 2004 also allowed for specialists or teachers to consult on behavior of students with disabilities without these being considered evaluations, allowing for more behavioral consultation in schools (NJ DOE, 2004). Overall, it was very clear that the responsibility to manage students in the most inclusive classroom environments possible was now a priority and it was the

district's responsibility to provide all services needed to increase the chances of that taking place.

#### **Inclusion**

As highlighted by the history of special education, PL 94-142 and the reauthorized IDEA sought to create a more inclusive educational system. Mara Sapon-Shevin (2007) points out that the term inclusion does not only refer to students with disabilities. An exhaustive list of variables for which inclusion might apply would include: "race, gender, ethnicity, family background, sexual orientation, language, abilities, physical size, religion, and on and on" (Sapon-Shevin, 2007). Though these attributes may not be thought of immediately when referring to inclusion, they are all factors that make schools heterogeneous. A parallel can be seen between IDEA and *Brown vs. Board of Education*. Laski (1994) directly states that people with disabilities share similarities with African Americans and that state-mandated segregation of students with disabilities "in its virulence and bigotry rivaled and indeed paralleled the worst excesses of Jim Crow" (Laski, 1994). The isolation of students with disabilities is therefore equated by scholarly authors to the segregation of African Americans years before the civil rights movement ever took place.

The United Nations Educational, Scientific, and Cultural Organization, a group that promotes international collaboration through education, the sciences, and culture, focuses on five overarching goals. One of these goals is "attaining quality education for all and lifelong learning" (UNESCO, 2012). UNESCO's Salamanaca Statement was a report that urged all educational systems internationally to adopt inclusive practices. The

injustice of segregating students with disabilities was perfectly articulated in this 1994 report:

Inclusion and participations are essential to human dignity and to the enjoyment and exercise of human rights. Within the field of education, this is reflected in the development of strategies that seek to bring about a genuine equalization of opportunity.

Although many people had made claims about human dignity and moral beliefs that segregation is unfair, current literature highlights the benefits of desegregation. Carlberg and Kavale (2001) conducted a meta-analysis and found that regular class placement was more beneficial to students with below average cognitive ability, as they performed lower in special placement classes and higher in regular class placements. However, they also found that students with behavioral or emotional disorders sometimes benefited from special classes due to a more structured environment with less potential distractors. Burstein, Sears, Wilcoxen, Cabello, and Spagna (2004), studied the implementation of inclusion in two school districts in southern California over the course of three years. They found that not only did inclusion benefit the special education students and their general education peers, but that it also had a positive impact on the general and special education practices taking place in the classroom. The schools in Southern California restructured special education in different ways. Some schools completely eliminated special classes, while others promoted collaboration between special and general education teachers. These schools found improvement in climate due to lack of stigma surrounding special education with more inclusive environments. They highlighted the

need to balance specialized instruction with inclusion as a core component, showcasing the benefits of IDEIA 2004 that children with disabilities not only need to have access to general education settings, but that educational systems also need to make accommodations and modifications to individualize their learning. Burstein, Sears, Wilcoxen, Cabello, and Spagna (2004) also discussed some of the barriers to inclusion. These barriers were generally focused on support, especially concerning the potential severity of disabilities. Teachers felt they needed continual support in order to make the full inclusion models work. While they felt generally positive towards the models, they were concerned that support would wane and they would be left with large special education loads or greater class sizes with behavior problems and no resources to deal with these concerns.

Research completed by Maurice (1996) continued to build on the notion that inclusion is beneficial for many students, but specifically addressed its impact on children with Autism. She stated that social and academic skills can be learned and generalized by children with Autism. She discussed an approach in which a student with Autism gradually acquires new academic and social skills, and is gradually taught for longer periods of time in general education classes as their time there will be contingent upon use of new skills. Maurice (1996) emphasized the importance that staff working with included students should be fully trained in Applied Behavior Analysis. The use of ABA in the classroom facilitates a contingent and "generalizeable" learning environment for both special and general education students, by understanding functionality of behaviors and how and when to intervene.

A final component in the inclusion discussion involves the role that attitudes of teachers play in the process of inclusion itself. Before examining the perceptions that teachers have regarding inclusion, it is important to acknowledge the additional demands placed on teachers due to some of the federal laws such as the No Child Left Behind Act of 2001 (NCLB). Though it has a major focus on components of IDEA like least restrictive environment and access to a free and appropriate public education, NCLB also states that all students will be included in state assessments (NEA, 2002). The idea of common standards for all students directly contradicts the need for accommodations and modifications highlighted in IDEIA, providing for tension in the special education classroom as a result (Rebell & Wolff, 2009). In a study conducted in the United Kingdom, it was found that teachers who were more experienced with the special education population, or who had been exposed to special education in their graduate schooling, possessed more positive attitudes than general education teachers with less exposure (Avramidis, Bayliss, & Burden, 2000). The study emphasized the importance of "in-vivo" training, as it seems clear that teachers with more direct professional development regarding inclusion had more positive attitudes towards inclusion. Additionally, teachers with "some years" experience in inclusive practices were more positive than teachers with little or no experience. Though the article did not specifically state length of time trained or amount of hours in professional development correlated to attitudes towards inclusion, it is still of use to know that the more teachers receive education or training in inclusive practices, the more positive they are towards it. If teachers felt they were adequately trained in how to teach special education students, they were more optimistic.

Finally, teachers were most concerned with special education students with emotional or behavioral disabilities in general education settings. The combination of seemingly constant educational reform with ongoing fiscal crises in all school districts has led to a scenario in which more and more students with challenging educational and behavioral profiles are being taken out of less included classes or out of district placements due to budgetary reasons. For example, in the State of New Jersey, Governor Chris Christie reduced state aid to education by \$820 million during the 2009-2010 and into the 2010-2011 academic year (Rundquist, 2011). With such a great amount of money taken away from special education budgets, many districts began to look quite closely at the high cost of out-of-district placements. By bringing special education students back into the district, schools can recover the amount in tuition they were previously spending on out-of-district placements (~\$60-90,000 per student). While fiscally logical, this approach places a significant burden on the schools, especially teachers, who now have to accommodate for children that were originally deemed a better "fit" for more restricted environments. A judge in 2011 even ruled that Christie's cuts did not allow New Jersey schools to provide thorough and efficient education to some of its most vulnerable students (Rundquist, 2011). With the current economic deficits, and accompanying programmatic changes, teachers clearly need help in dealing with the shift in placement of students with disabilities into more general education classroom settings. It will also become necessary to look at how to best improve teachers' abilities to manage more challenging and disruptive behaviors within their classrooms. It seems likely that if teachers are more knowledgeable and competent in applying

behavioral strategies in the classroom that there will be an accompanying reduction in teacher stress.

#### **Applied Behavior Analysis**

Applied Behavior Analysis (ABA) is the use of behavior modification techniques when there has been analysis of the behavior warranting change. In practice, the terms "behavior modification, behavior management" and ABA are generally used interchangeably (Martin & Pear, 2003). ABA has an "experimental foundation in basic operant research with animals and humans, in addition to experimental studies in applied settings" (Martin & Pear, 2003).

Any history of ABA will highlight B.F. Skinner's *The Behavior of Organisms*, published in 1938. In this seminal publication, Skinner explained his study in which rats pressed a lever for food or water, thus demonstrating operant conditioning. Rats were found to press a lever more frequently if the response led to a desired outcome such as food or sugar. Additionally, they were found to press a lever if they wanted an aversive stimulus, such as a loud noise, to stop. The book outlines the review and analysis of measurable behavior in order to predict and control it (Skinner, 1938). Once Skinner's theories were published, psychologists began to study how positive reinforcement and extinction affect humans (Martin & Pear, 2003). Ulmann and Krasner(1965) were the first to use the term "behavior modification" in a book title. Their *Case Studies in Behavior Modification* compared the behavioral model to both traditional psychotherapy models and medical models. Then, in the 1960s, many psychologists began to focus on operant conditioning and coined it "applied behavior analysis" (Martin & Pear, 2003).

Baer, Wolf, and Risley (1968) wrote an early article on ABA in which they analyze the definition of ABA by breaking down the term into its component parts (i.e. applied, behavioral and analysis). The first section exploring the term "applied" cites societal implications. "The label applied is not determined by the research procedures used but by the interest which society shows in the problem being studied. In behavioral application, the behavior, stimuli, and/or organism under study are chosen because of their importance to man and society, rather than their importance to theory" (Baer, Wolf, & Risley, 1968). The next section, which addresses the term "behavioral," may seem to be quite obvious, but the authors make the distinction that "[behaviorism] usually studies what subjects can be brought to do rather than what they can be brought to say; unless, of course, a verbal response is the behavior of interest" (Baer, Wolf, & Risley, 1968). They go on to explain that all behaviors, when researched, need to be reliably quantified. In focusing on the definition of behavioral, one needs to understand that when studying a behavior, it needs to be operationally defined so that all know clearly what a specific behavior entails. The final section in their description focuses on "analysis" of behavior, the third major component of ABA. Baer, Wolf and Risley (1968) state "An experimenter has achieved an analysis of a behavior when he can exercise control over it." They explain the difficulty of gaining control over a behavior in applied settings. In control trials, all environmental conditions are controlled for, which provides an easier mechanism for manipulating behavior; however, when in an applied setting, environmental conditions can never be fully controlled, as it is a real-world setting. Poling and Fuqua (1986) described ABA by simply stating, "The two hallmarks of applied behavior analysis are utilization of the principles of operant conditioning to

improve human behavior and utilization of scientific research methodology to assess the effectiveness of treatments."

More recent publications discuss ABA differently. In Martin and Pear's (2003) book on behavior modification, ABA is not even mentioned until a brief historical discussion towards the end of the book, even though the entire publication is wholly based on the principles. Kearney (2008) wrote a guide for "parents, teachers, and other professionals." In this, he not only highlights the points that Baer, et al. examined, but also goes into one of the most important aspects of ABA: Observational (ABC) based assessment. While it is obviously important to focus on behaviors as is clearly stated in the title of the field applied behavior analysis, it is also important to focus on variables that may play a role in a behavior's display. The ABCs are defined as the antecedents (the setting and events that are in place when a behavior is displayed), the behaviors (the actual events), and the consequences (what happens after the behavior occurs). These are related to Skinner's (1958) three-part concept of contingency of reinforcement. When discussing behavior, there is an element of learning involved. Kearney (2008) explains that humans learn things as a result of three facts that work together: (1) heredity and genes, (2) physiological changes happening after conception, and (3) behavior-changing experiences. He also explains a simpler definition of learning as "any relatively permanent change in behavior that results from interaction with the environment" (Kearney, 2008). If one is looking to modify behavior, one needs to see if he/she can either modify the events before the behavior or modify the consequences of the behavior. For example, in a classroom setting, a potential change in an antecedent condition includes making a lesson more engaging by using multiple modalities in order to help a

disaffected student. Similarly, an example of changing a consequence to a behavior involves a plan to ignore specific behaviors displayed by a student in order to stop him/her from receiving desired negative attention. The question then becomes: How does one know to intervene with antecedents or consequences?

Functional behavior assessments (FBA) are another important part of applied behavior analysis, and also a stipulation of the 2004 reauthorization of IDEA (NJDOE, 2012). An FBA is a "problem solving process to address student problem behavior" (CECP, 2001). The goal in conducting an FBA is to determine the function or purpose of a behavior, by looking at social, affective, cognitive, and environmental factors to see if they are affecting the behavior (CECP, 2001). By analyzing the function of a behavior, one can determine when and where to intervene with antecedent or consequence driven interventions. By taking data on behaviors, one can better understand the possible functions of a behavior. For example, if a child is bored in a class because a lesson is not engaging, then changing the lesson, or the antecedent, to make it more exciting may positively impact that student's behavior. If a child is getting extra attention when he/she exhibit negative behaviors, a teacher may use planned ignoring in order to change the consequence. Martin and Pear (2003) explain that assessing behavior involves identifying target behaviors, identifying possible causes or functions of the behaviors, using the data to guide the decision for intervention, and evaluating the intervention. While this is a general overview of assessment, Kearney (2008) notes ten steps to conducting a functional behavior assessment:

- (1) Operationalize the target behavior
- (2) Find the baseline
- (3) *Identify the antecedents*

- (4) Note the place
- (5) *Note the time*
- (6) *Identify the consequences*
- (7) Identify the positive reinforcers and aversive stimuli
- (8) Plan and implement the program
- (9) Monitor the program
- (10) Evaluate and adjust the program

In completing a functional behavior assessment, intervention is always considered a part of it; however, the assessment itself does not necessarily tell a teacher what intervention to use or how to use it.

There are many techniques used by behaviorists to modify or change behavior.

Martin and Pear (2003) highlight numerous different methods in their book. These include (1) using positive reinforcement to increase an adaptive behavior, (2) using conditioned reinforcement to develop or maintain a behavior, (3) using extinction to decrease behavior, (4 & 5) intermittent reinforcement for behavioral persistence and to decrease behavior, (6) stimulus discrimination and generalization, (7) fading, (8) shaping, (9) chaining, (10) punishment, (11) escape and avoidance conditioning, and (12) respondent conditioning. Although Martin and Pear devote a chapter to each technique, positive reinforcement and extinction are represented most often throughout. The manner in which these techniques are used in classrooms, however, is based mostly on the creativity of a teacher or a behaviorist helping him/her.

#### **Behavior Modification in the Classroom**

Though an outline of what applied behavior analysis means is helpful, the true question lies in how it affects behavior in the classroom. When referring to behavior management and modification in the classroom, a myriad of questions arise. Are

to use ABA techniques? Are teachers using these techniques in the classroom? If not, what is holding them back? Understanding teachers' attitudes toward and perceptions of behavior interventions in the classroom is essential in determining why they are or are not using interventions. Examining teachers' preparedness in regards to behavior interventions is also necessary in determining where teachers feel they need more knowledge or training. This will help to ensure they have the tools necessary to implement interventions.

The Institution of Educational Sciences' What Works Clearinghouse (WWC) (2008) is "a central and trusted source of scientific evidence for what works in education." WWC published a practice guide for elementary school teachers on how to reduce problematic behaviors, by giving specific prevention and implementation strategies. These guidelines follow the functional behavior assessments procedures and interventions that applied behavior analysis recommends. The five recommendations are as follows: (1) Identify the specifics of the problem behavior and the conditions that prompt and reinforce it, (2) Modify the classroom learning environment to decrease problem behavior, (3) Teach and reinforce new skills to increase appropriate behavior and preserve a positive classroom climate, (4) Draw on relationships with professional colleagues and students' families for continued guidance and support, and (5) Assess whether school wide behavior problems warrant adopting school wide strategies or programs and, if so, implement ones shown to reduce negative and foster positive interactions. These simple recommendations are of great importance, in light of the public concerns with public schools. The 42<sup>nd</sup> annual Phi Delta Kappa/Gallup Poll,

indicating what Americans have to say about public schools, showed that concern over lack of discipline or control in schools is consistently a top priority for the American public (Bushaw & Lopez, 2010). Because of this public concern, it is only natural that researchers begin to focus on this problem.

With journals dedicated to topics in behavior interventions, early childhood special education, positive behavior interventions, and school psychology, there is currently a strong focus on researching and examining the utility of behavior techniques in the classroom. By interpreting the current research, behaviorists can use or modify interventions in classrooms in which they consult. Arnold, McWilliams, & Arnold (1998), Blair, Umbreit, & Bos (1999), and Brauner & Stephens (2006) found that there seem to be more challenging behaviors in the classroom than existed previously (as cited in Wood, Ferro, Umbreit, and Liaupsi, 2011). Therefore, it is of utmost importance to understand what interventions work in the classroom. In an attempt to advance this research, Wood, et. al. (2011) studied the effectiveness of systematic function-based interventions for addressing the challenging behavior of young children. The researchers studied three students across two inclusive preschool classrooms. These children were exhibiting disruptive behavior in the classroom. Students selected for the study had to meet criteria of exhibiting challenging behavior that consistently disrupted learning, possessing an IEP, teachers placing at least two calls to home due to disruptive behavior, and not exhibiting self-injurious behaviors. Functional behavior assessments were conducted and interventions were designed and implemented from the data collected in these assessments, using the Decision Model (a visual representation of the decision making process). The flow chart for this Decision model includes five steps. The first

three are conducted for all students: (1) conduct an FBA, (2) select replacement behavior, (3) check to see if student can perform replacement behavior. Regardless of whether the student can or cannot perform replacement behaviors, the question of whether antecedent conditions represent best practice must be addressed first. If the student can perform the replacement behaviors and current antecedent conditions represent best practice, then contingencies need to be adjusted. If the student can perform the replacement behaviors and antecedent conditions do not represent best practice, then the environment needs to be improved. If a student cannot perform the replacement behaviors and the antecedent conditions represent best practice then the replacement behavior needs to be taught. If they cannot perform the replacement behavior and antecedent conditions do not represent best practice then the replacement behavior needs to be taught and the environment needs to be improved. Results of the study found that the interventions increased on-task behavior for these students, while simultaneously decreasing disruptive behavior in the classroom. Though the study had a small sample size of only three students, it does indicate the possibility for effectiveness of functional behavior assessment and intervention using the Decision Model in children under the age of five.

Smith, Lewis, and Stormon (2011) addressed problematic behaviors in a study that focused on Head Start classrooms. Head Start is a pre-school education program geared towards children from low-income families to prepare them for school (U.S. Department of Health and Human Services, 2001). Head Start aims to "provide all children with a safe, nurturing, engaging, enjoyable, and secure learning environment, in order to help them gain the awareness, skills, and confidence necessary to succeed in their present environment, and to deal with later responsibilities in school and in life"

(U.S. Department of Health and Human Services, N.D.). Since the goal of Head Start programs is school readiness for children that are already at a disadvantage, it is important to pay close attention to their behavior. Smith, Lewis, and Stormon (2011) aimed to determine the effectiveness of an intervention that intended to increase the use of two universal behavioral supports by teachers for problematic target behaviors.

Multiple researchers (Dunlap et al., 2006; Powell, Fixsen, Dunlap, Smith, & Fox, 2007; Webster-Stratton, Reid, & Hammond, 2004) explain that children with behavioral difficulties can be at risk for academic difficulties, social problems, and peer rejection (as cited in Smith, Lewis, & Stormont, 2011). Smith, Lewis and Stormont (2011) studied three Head Start classrooms, with parents nominating students in each class with disruptive and inappropriate behaviors on which the study focused. The teachers were taught how to use behavior-specific praise and implement pre-corrective statements. The researchers found that the consultation (in one 60 to 90 minute session) and feedback provided after implementation was successful in increasing teachers' use of behavior-specific praise and implementation of pre-corrective statements. This, in turn, helped with the target students' disruptive behaviors, increasing on-task time and decreasing disruptive and inappropriate behavior. Again, this study was executed with a small sample size of three teachers and three students, but is indicative of success using a consultative model to help teachers with behavioral interventions

Similar to the Head Start study, Musti-Rao and Haydon (2011) proposed methods to increase teachers' behavior-specific praise in inclusive education rooms. The authors sympathize with teachers in the article, acknowledging that behavior management techniques can be time-consuming. They emphasized the importance of praise in

classrooms and reported that behavior-specific praise (specifically acknowledging a positive behavior that is exhibited and praising a child for it) is a feasible intervention for teachers at all grade levels. Their first suggestion was that teachers fully understand the positive effects of praise. Next, it is important for teachers to record and evaluate their own frequency of praise. Once they understand the current manner in which they use praise, they can select students and target behaviors to address. Teachers can increase their behavior-specific praise with these students by developing a personal cueing device to remind them to praise or pairing praise with tokens or notes, as well as receiving help from a fellow teacher. Though this article does not report on an actual research study, it is essential for teachers to have feasible ways of implementing behavior management techniques in the classroom. Since children with behavioral difficulties have more challenges learning, this is an essential tool for teachers (Dunlap, Lovannone, Wilson, Kincaid, & Strain, 2010).

Due to the government pressures from No Child Left Behind, there is a greater need for more feasible behavior management techniques (NCLB, 2002). As explained previously, NCLB's goal was to close an achievement gap and ensure that all students were afforded the same educational opportunities. NCLB mandated that all students be held accountable by state testing, even those in special education classes. This proves to be difficult for teachers, especially those dealing with children who have behavioral problems. If teachers are focusing their time on managing behavior, they are taken away from teaching the entire class.

#### **Intervention Techniques**

A common behavior management tool based on the utilization of positive reinforcement for desired behavior in classrooms is a token economy. Self-management systems are also used in classrooms, but they are utilized for higher functioning students, as a way for them to monitor their own behavior and positively reinforce themselves for exhibiting desired behaviors. Shogren, Lang, Machalicek, Rispoli, and Reilly (2011) compared the effectiveness of these two behavior management techniques. The study was conducted with two boys on the Autism Spectrum schooled in a private elementary school for special education students. The Diagnostic and Statistical Manual of Mental Disorders IV-TR (DSM-IV-TR) (2000) defines Autistic Disorder as "the presence of markedly abnormal or impaired development in social interaction and communication and a markedly restricted repertoire of activity and interests." However, the next edition of the DSM, the DSM-V, proposes changes to the diagnosis, using the term "Autism Spectrum Disorders" (ASD), placing diagnoses on a continuum from mild to severe (American Psychiatric Association, 2012). The dependent variables of the study were time frame for appropriate behavior (how long the student could engage in appropriate behavior) and engagement in classroom activities (if the student participated in the activities designated for the class). The study was conducted using an ABACABAC design and then a maintenance phase at the end. The baseline was A, the token economy intervention was B and the self-management intervention was C. Both the token economy and self-management systems were found to be effective in increasing appropriate behavior and engagement in class activities. In discussing the results of their study, the researchers pointed out that the self-management intervention, while just as

effective as the token economy, could be an easier and more feasible intervention for teachers to execute. By knowing what teachers find easier and more helpful in the classroom, behaviorists can tailor interventions to utilize these methods more often than other methods that may be less well received by teachers.

Von der Embse, Brown, and Fortain (2011) reviewed literature over the past ten years to identify articles that focused on students with ASD and how inclusion was facilitated by decreasing problem behaviors in the classroom. In their research they found four methods that appeared to be successful in reducing problematic behaviors and facilitating inclusion for students with ASD. They found that using functional behavior assessments, tiered models of delivery (methods with universal preventative efforts as Tier 1, targeted interventions as Tier 2, and FBAs used in Tier 3), behavioral approaches, and social skills training were effective in the classroom. Though at first it may appear that applied behavior analysis practices are only used in two out of four of these methods, when looking further at the research, the studies using tiered methods also employed the use of functional behavior assessment techniques. The authors cite IDEIA and the necessity of including students with disabilities in the general education classroom as a need for more research focused in this area. They found that over the past ten years, the research was limited considering the need for methods to facilitate inclusion. No Child Left Behind was also cited in that there is a necessity to increase the achievement of all students, even those with disabilities. Though the point of the authors in the article is to promote research, in the eyes of a behaviorist, it shows the need for constant behavior attention and awareness on the part of teachers to be able to implement best practices and aid them in facilitating inclusive education.

Studies on students with Autism Spectrum Disorders (ASD) that exhibit problematic behaviors make up a significant portion of the behavior intervention research. Blakeley-Smith, Carr, Cale, and Owen-DeSchryver (2009) examined the behavior of students with ASDs and their results are extremely relevant for antecedent intervention to reduce problematic behavior. They examined the "environmental fit" of the classrooms for six children with ASDs. Environmental fit analysis is a method for understanding whether variables such as curricular demands or student academic skill deficits were causing problematic behaviors in the classroom. Both standardized assessments and ongoing task analyses were used to determine competency in motor and academic areas. The researchers found that high rates of problematic behavior were associated with poor competency in these two areas. When modifications to the curriculum were made, negative behaviors decreased. Though this is not a causal study, it does promote the use of antecedent analysis to better understand how to decrease problematic behaviors, especially with children who present with ASDs.

When examining consequence driven behavioral programs, studies have historically focused mostly on the effects of intervention on individual students, but an integral part of behavior management is in group contingencies. Kearney (2008) describes a contingency behavioral contract as a statement that explicitly declares what a student is expected to do and what the resulting consequences will be. In a group contingency, the entire group (the class) needs to exhibit an expected behavior in order to receive a reward. Hulac and Benson (2010) review the use of group contingencies and highlight three types of group contingencies: (1) dependent, where consequences are given to the entire group based on the performance of a select group of students, (2)

independent, where consequences are given to each group member regardless of other group members behaviors (token economies), and (3) interdependent, where all students receive consequences dependent on the performance of all students. The authors explain that the use of group contingencies can be beneficial to teachers as it promotes positive behavior instead of focusing on negative, and it teaches students how to cooperate and work as a group (Hulac & Benson, 2010). The class-wide function-based intervention team (CW-FIT) program is an example of a group contingency that also works within a tiered model. It is a "multilevel group contingency intervention that broadly addresses common functions of problem behavior" (Wills, Kamps, Hansen and Nsubuga, 2010). The intervention addresses all students in a classroom, and is therefore considered a primary intervention. All students in a classroom receive the primary-level CW-FIT program. Students that do not respond to this program are given targeted interventions using self-management and help-card procedures (brightly colored paper with the word "HELP" on it to indicate to a teacher that a student is having academic difficulties). Finally, students that do not respond to primary or secondary level interventions receive a functional behavior assessment. There are four components to the CW-FIT program: (1) teaching, (2) extinction, (3) reward, and (4) self-management or peer management. Students are taught how to communicate effectively, staff members are instructed to minimize social reinforcement for problem behavior, students are rewarded based on individual and group contingencies, and students are taught self and peer management techniques.

The utilization of group contingencies has also been studied in urban settings and elementary school settings. It is important to acknowledge group contingencies in

multiple settings to understand its efficacy. Kamps, Wills, Heitzman-Powell & Culey (2011) studied the effects of the CW-FIT program in urban settings already using positive behavior supports. The researchers looked at six classrooms from three separate elementary schools in urban communities. Group on-task data, as well as target student on-task behavior and disruptive behavior was examined. All classes and grade levels saw improvement in on-task behavior after the implementation of the CW-FIT program. For the target students, each saw a decrease in level of disruptive behavior and six out of the eight saw an increase in on-task behavior. Though the CW-FIT is a specific group contingency intervention, this article shows the effectiveness of these contingencies for students in one group of urban elementary schools.

A second study examining group contingencies focused on improving the behavior of elementary school students in the cafeteria setting (Fabiano, Pelham, Karmazin,...& Kreher, 2008). Though most of the previous research reviewed takes place in traditional classroom settings, it is also important to focus on other settings in order to understand how to decrease problematic behavior. Non-academic school settings are less structured, have increased peer interaction, and less supervision, and there is a possibility for more behavior problems in these settings. Non-academic environments can also pose a difficulty for staff as there are more children present in these settings than in the traditional classroom (Fabiano et al, 2008). By evaluating different settings, one can look at antecedents and consequences that differ from those in the classroom.

Cafeterias are important to research, as they are generally very unstructured with minimal rule setting. The study examined the behavior of 700 students in a suburban elementary school cafeteria. Reward and response cost procedures were used in the implementation

of the group contingency. The school posted eight rules that were enforced throughout the day. Throughout each lunch period, the entire class was given six lottery tickets. With each infraction, one ticket was taken away (the termed response cost). However, three random checks were conducted throughout each period. If no students committed infractions during these ten second checks, they would earn bonus tickets that could not be taken away (the reward portion). The lottery tickets would go into a raffle where two classes a day would receive class-wide privileges. During baseline data collection of six days, the average weekly infractions were 302.8, but after program implementation of 33 days, they decreased to 124.39. During the course of the intervention, two programmatic modifications were made. The three classes with the lowest rule violations were given social honors (a banner hung above the doorway to their classroom and specific praise from school staff). This modification resulted in a reduction in the average number of infractions from 144.93 to 87.23. After winter break, cafeteria behavior appeared to get worse. Both the researchers and students had been away from school for some time, potentially explaining the increase in problem behavior. A second program modification involved publicly posting rule infractions was implemented soon after students and researchers returned. Problematic behavior which had averaged 152.22 infractions a week prior to the second modification, reduced to 109.49 per week. This study shows the benefit of behavioral interventions in an alternative education setting and the need to understand how a student's behavior may vary from setting to setting within the educational environment.

Service and treatment models that address behaviors of students across multiple settings and environments are rare. One such ecological model that focuses on multiple

factors is Project: Natural Setting Therapeutic Management (NSTM). NSTM is a behavioral consultation and training program that seeks to enhance a targeted individual's natural environment by increasing the behavioral proficiency of caregivers (Petronko, Anesko, Nezu and Pos, 1988). Behaviorists at NSTM consult with school staff and are "responsible for training the academic staff in behavioral assessment and applied behavior analytic techniques, practicing them in an analog setting, fine tuning each skill via video-taped review, and piloting them through in-vivo instruction with the referred person" (Kormann & Weiss, 2008). NSTM promotes the generation of a therapeutic milieu in the classroom by focusing on four factors: (1) the student with a dual diagnosis; (2) the staff members responsible for implementing program components, designated as the behavior managers; (3) the environment, including classmates, building variables, classroom schedules and routines, and other aspects that define the classroom environment of the student served, and (4) the larger system within which the first three factors are embedded (Kormann & Weiss, 2008; Petronko, Anesko, Nezu and Pos, 1988). The goal of NSTM is to train the behavior managers (teachers and academic staff) in the natural setting (the classroom) in order to maintain change in behaviors and give staff the knowledge as well as confidence to implement interventions effectively (Kormann & Weiss, 2008).

#### **Teachers' Perceptions and Use of Behavioral Interventions**

Although the literature is clear that behavioral support techniques work in a wide range of educational environments, implementing those techniques can be quite challenging. Foxx (1996) reviewed his experiences over twenty years of work using applied behavior analysis to treat severe behavior problems. In his article, he discusses

barriers to success and factors that aid in the success of behavior interventions. Foxx explains that expertise problems and information gaps are two barriers to successful implementation. These are important when understanding what behavioral techniques teachers are using within the classrooms. If they are not educated on techniques, they will not be able to utilize them. Foxx suggests using functional assessment data to drive interventions. Although Foxx's research addresses barriers to success of interventions such as teachers' lack of knowledge, it does not examine their beliefs and perceptions surrounding the use of behavior management techniques. This understanding, however, is essential if one is to examine the factors that interfere with teachers' ability to implement classroom-based interventions consistently.

Tillery, Varjas, Meyes, and Collins (2010) sought to better understand general education teachers' perceptions of behavior management and intervention strategies.

Twenty general education teachers from five schools participated in the study by answering questions in a semi-structured interview with the researchers. Teachers were asked questions about how they view behavior itself and what they can do when negative behaviors occur. Additionally, questions about training and fact-based questions on response to intervention (RTI) and positive behavioral interventions and supports (PBIS) were included in the interviews. According to Fairbanks, Sugai, Guardino, and Lathrop (2007) RTI is comprised of at least five components: (1) evidence based practices ranging from universal strategies to individually focused interventions, (2) decision points highlighting students that are achieving below their peers, (3) constant student progress monitoring, (4) using more intense interventions and strategies when students do not respond to previous ones, and (5) potential eligibility for special education if students

do not respond to all previous interventions. The Organization for Positive Behavioral Interventions and Supports (PBIS) explains on their website that these are "school-wide systems of support that include proactive strategies for defining, teaching, and supporting appropriate student behaviors to create positive school environments" (What is Schoolwide PBIS?, 2011). PBIS teaches students positive behaviors by individual and schoolwide reward and praise. According to Flannery, Guest, and Horner (2010), "Key features of SWPBS [school-wide positive behavior supports] are an investment in preventing negative behavior, academic and behavioral interventions at multiple levels of intensity, use of data for decision making, and organizational systems." The Tillery et. al. (2010) study found that teachers presented limited information in regards to behavioral interventions, potentially showing a lack of knowledge in the area. Additionally, they reported a lack of training and a lack of knowledge in RTI and PBIS. Their lack of knowledge regarding RTI and PBIS is of interest since their home district underwent trainings in these two areas during the course of the study. This study exhibits the need for teacher education of behavior principles, especially in ways that are relevant to them and that will resonate with them and promote application in the classroom. If teachers are trained to use behavior management techniques, but do not find them feasible or realistic in the classroom, or they simply are not utilizing them, then the trainings are rendered useless. This study focused on more general behavior techniques and perceptions of them; however, it is also important to focus on perceptions of more specific interventions and whether teachers find them effective or not.

A study conducted in Turkey looked at the strategies for behavior modification used in special education classrooms as well as perceptions of effectiveness and

acceptability (Turan, Erbas, Ozkan, & Kurkuoglu, 2010). The researchers sent out 619 surveys to special education teachers from three different cities in Turkey in an attempt to represent rural, urban, and suburban regions. Of the 619 surveys, 408 were returned with no missing data. Participants were asked in the survey what behaviors occur in their classroom, how frequently they use positive and reductive behavior strategies, and how supported they feel they are in behavior management. The researchers found that praise was the most common positive strategy, with 75% of teachers reported using praise on a daily basis. The remaining positive strategies were reportedly used by more than 50% of teachers on at least a weekly basis. For the reductive strategies, 50% of teachers reported using them weekly. In regards to the perceived effectiveness and acceptability, three positive strategies (praise, differential reinforcement, and token economy) were seen as effective and acceptable. None of the reductive strategies were perceived as effective or acceptable. The study points out that teachers claim they use some behavioral strategies with relative frequency.

Two studies in the literature were found that examined specific interventions: daily behavior report cards and level systems. Chafouleas, Riley-Tillman, and Sassu (2006) surveyed teachers regarding their use and acceptability of daily report cards.

Nearly two thirds of teachers surveyed reported using report cards in their classrooms.

Formats of the reports vary greatly as they were used for behavior monitoring as well as for intervention. The researchers found that regardless of purpose, the report cards were considered acceptable by the teachers. A final study analyzed 172 surveys of special education teachers working with emotionally disturbed students, revealing use and perceptions of the effectiveness of a level system (Farrell, Smith, & Brownell, 1998). Of

these teachers, 122 teachers currently use level systems, 20 teachers had used them but do not currently, and 30 teachers had never used them. From the survey, the researchers concluded that the majority of teachers learn about level systems through information from other teachers or through their own research. Overall, teachers had positive outlooks on the level system, feeling that they increased appropriate behavior and promoted academic achievement. Though it appears that teachers who use the system in general find it effective, it is left to the creativity of individual teachers to come up with their own level system. This poses the question: Are teachers prepared to execute behavior interventions?

Preparation is a key factor in the implementation of any intervention, and it is of utmost importance to make sure teachers feel prepared to deal with behavior problems in their classrooms. Teachers feel that having classroom management skills are integral to them professionally (Merrett & Wheldall, 1993). In a 1993 study by Merrett and Wheldall in the United Kingdom, teachers were questioned using a structured interview schedule on their opinions regarding training in behavior management techniques. Seventy-two percent of teachers participating in the study felt that their training in classroom behavior management was insufficient. When asked how important it was for teachers to be prepared and taught sufficiently in this area, 7% of teachers felt it was important, while 93% felt it was very important. Though the teachers in this study reported that they do not feel equipped to deal with behavior problems due to lack of training, other teachers, especially at the secondary level, not only feel unable, but are less willing than their lower grade level counterparts to utilize behavior management

techniques (Baker, 2005). A lack of desire to learn or implement behavior techniques is of great concern to behaviorists.

#### **Purpose of the Study**

The history of special education has been tumultuous, from a time when institutionalization was prominent to a current focus on the inclusion of all students with disabilities in the regular education classroom. Teachers are now expected both to manage problematic behaviors and to ensure that students satisfy federal requirements on annual yearly progress. Effective behavior management techniques are needed in the classroom to alleviate the stress from teachers, especially when they have to manage severe behavioral disabilities. Current research supports the use of applied behavior analysis to understand the functionality of behaviors and help to develop interventions that are effective. Researchers are constantly studying the efficacy of a myriad of interventions in settings with willing participants; however, the efficacy of these interventions does not translate to classroom success if teachers are not perceiving them positively and utilizing them. The current study seeks to understand the utilization of these behavior techniques in special education classrooms. Though the previous research shows that teachers are using behavior techniques in special education classrooms through self-reports (Turan, et al, 2010), it is also known that high amounts of knowledge regarding behavior modification does not necessarily indicate implementation of interventions (Kormann & Weiss, 2008). Therefore, it is important to examine whether teachers are truly executing the techniques they say they are implementing in the classroom. This study aims to answer the question: Are special education teachers

implementing the methods they say they are implementing in regards to behavior modification and management?

#### **Chapter II**

#### Methods

This study was conducted in a small school district in central New Jersey and utilized seven pre-school and elementary school special education teachers. Due to time and fiscal constraints, a purposive sampling was used, as a randomized study was not feasible. Purposive samplings are used to generalize within a specific situation (Shadish, Cook, & Campbell, 2002). Out of convenience and a prior relationship between the researchers and the district, a small, suburban town in central New Jersey was selected (hereafter referred to as District A). The relatively small district consists of three elementary schools, one middle school, and one high school. The total population of the school district, for the 2010-2011 school year, according to the New Jersey Department of Education, was 2,105 (NJ DOE, 2011). However, according to an administrative assistant in the district, the current enrollment is 2,181 (personal communication, January 18, 2012). According to the 2010 census, through the town's website, the borough's racial and ethnic make-up is 64.77% White/Non-Hispanic, 5.13% African American, 16.47% of Hispanic or Latino race, 6% Asian, 0.176% Native American and Alaskan Native, 0.073% Native Hawaiian and Pacific Islander, and 5.37% from other races (U.S. Census, 2010).

#### **Participants**

Since the focus of the study was very specific on locating a potential discrepancy between what teachers are reporting in regards to use of behavior modification techniques and what they are truly using in the classroom, the researchers did not desire to compare in regards to grade, special education versus general education, or experience of teacher.

Therefore, only special education teachers were recruited for this study. Special education classes in District A serve a range of disabilities including specific learning disabilities, autism, cognitive impairment, behavioral and emotional disabilities, and other various medical and physical disabilities.

An electronic letter (Appendix A) was sent to all special education teachers in the three elementary schools of District A. Among the three elementary schools, there are eight special education teachers. The only criteria set for ability to participate in the study was that the teachers (a) had a willingness to complete survey and have independent observation for 40 minutes and (b) were certified special education teachers. All eight the teachers received the electronic letter soliciting participation in the study. Of the eight, seven participated in the study. Demographic information regarding age, gender, and amount of years teaching was specifically not collected as it is not a relevant part of this study, and aided in anonymity of participants. Upon expressed desire to participate in the study, the researcher reviewed an informed consent with them (Appendix B). Each teacher signed and received a copy of the informed consent. Teachers were assigned numbers to ensure tracking of observations and surveys. Upon analysis of the data, this information was destroyed.

#### **Procedure and Instruments**

The procedure for the study consisted of one survey completed by each special education teacher (taking no longer than 20 minutes), as well as three, 40-minute independent observations conducted by the researcher. In order to get a true sense of the use of behavior modification in the classroom, the independent observations were completed prior to the teachers receiving the survey. Additionally, the teachers were

given a broad overview of the study in the informed consent, but specifics of the research regarding behavior modification use were not highlighted, so as not to affect their use of techniques when observed. After the three observations were completed and the teachers finished and returned their surveys, all teachers were debriefed (Appendix C) on the actual intent of the study. Permission was given by both the Director of Special Services and the superintendent of District A to conduct research in the districts. The data was collected over the course of two months in Spring of 2012. All teachers had the opportunity to terminate participation in the study with no penalty to them. Six of out the seven teachers were observed on three occasions; however, the seventh teacher left school early due to an emergency and was not able to be observed a third time. This teacher did complete the study by filling out the teacher survey and her information was used in data analysis.

The teacher survey (Appendix D) and the structured independent observation (Appendix E) are identical, except for the change in perspective (teacher survey is self-reported and the researcher will be completing about teachers' use of behavior modification techniques). The survey was modified from an already established survey developed by a behaviorist at Project: Natural Setting Therapeutic Management (NSTM). "NSTM is a behavioral consultation and training program designed to teach families and/or staff of people with developmental disabilities and challenging behavior methods to construct and maintain a therapeutic environment" both in school and residential settings (NSTM, 2010). This is used in behavioral consultation in school districts to better understand how teachers are currently using behavior modification techniques.

The survey consists of five "yes" or "no" questions, three Likert scale questions regarding follow through of techniques and difficulty surrounding follow through, and six questions on a Likert scale regarding amount of techniques used in a 40-minute period (five points, ranging from "Never" to "5+times"). Though the time period of 40 minutes designated to the teacher may not be ideal, as it may have been difficult for them to estimate in such a short period of time, it was necessary in order to correlate the teachers' responses with those of the independent observer. The last questions regarding types of behavior modification techniques were added to the original survey based on research regarding the most prevalent forms of behavior modification. Turan, Erbas, Ozkan, and Kurkuoglu (2010) developed a survey that included questions regarding use of positive and reductive strategies for behavior modification. Though the actual survey was not available, the outline of it, specifying the type of behavior modification used, in addition to Martin and Pear's (2003) description of behavior modification types was used to help establish the techniques that would be relevant for the study. The most common techniques used by researchers reviewed were (a) individual contingent positive reinforcement, (b) group contingent positive reinforcement, (c) planned ignoring, (d) redirection, (e) time out, and (f) punishment.

The observer recorded instances of individual contingent positive reinforcement in individuals if a token economy or individual behavior or sticker charts were utilized. Group contingencies were recorded if the observer viewed the teacher utilizing a reward that the entire class could earn, such as marbles in a jar. Tallies for planned ignoring accrued if the observer viewed the teacher deliberately not acknowledging a behavior that was distracting, such as tapping a pencil or making noises. If a teacher showed a student

the correct behavior, they were noted for redirection, and if the child was given a time where they were not allowed to participate in an activity, they were tallied for time out. Finally, if a teacher removed privileges or tangible objects due to negative behavior displays, the observer recorded these instances as punishment.

#### **Data Analysis**

The analyses for this study were very simple, as the research question is direct. Descriptive statistics were run and the analysis entailed the utilization of correlation studies between the teachers' surveys and the independent observations completed by the researcher. Correlations are used to measure the association and strength of a relationship between variables (Shadish, Cook, & Campbell, 2002; Tabachnick & Fidell, 2007). Correlation is expressed through Pearson r where .00 indicates no linear relationship and +1.00 or -1.00 indicates perfect predictability of one score if one is attained (Tabachnick & Fidell, 2007). The current study is examining a relationship between what teachers are saying they are executing and what they are actually executing in regards to behavior modification. A correlation study is necessary to determine how strong this relationship is. If the Pearson r approaches a +1.00, this indicates that if teachers say they are using behavior modification, they are actually using techniques in the classroom. If Pearson r approaches -1.00 then teachers are saying they are using techniques, but not actually using them, or teachers are not saying they are using them but actually are. Finally, if Pearson r is closer to .00, this indicates a lack of a relationship between what teachers report they are doing with behavior modification and what they are actually using in regards to behavior modification.

#### **Chapter III**

#### **Results**

In order to analyze the data collected from both the independent observations and the teacher surveys, two data sets were created. One data set looked at individual teacher responses and the other data set looked at the implementation of each variable of behavior management individually. Finally, the "yes/no" questions were compared by conducting a frequency count for each question and comparing the teacher responses to the independent observers answers to the same questions. The first data set intended to compare each individual teacher's response set to the independent observations (either two or three observations). Before input, the Likert scales for frequency of behavior modification techniques were coded as such: Never = 0, 1-2 times = 1, 3-4 times = 2, 4-5 times = 3, and 5 + times = 4. The independent observations were then averaged and each variable was given a whole number equivalent to the coded breakdown. For example, if numbers were .5 or higher, they were rounded up, and if numbers were lower than .5, they were rounded down. Each teacher survey was then individually correlated with the averaged independent observations for that teacher. One-tailed bivariate correlations were executed as the prediction would be that teachers' surveys would only positively correlate with the independent observations. Additionally, alpha was set to .10, as there was a small sample size (n = 7). This analysis yielded four significant results (see Table 1).

TABLE 1
Correlations of Teacher Reported Behavior Management Variables with Independent
Observations by Teacher

Variable	Independent Observation	
Teacher One	.657*	
Teacher Two	.679*	
Teacher Three	.833**	
Teacher Four	.765**	
Teacher Five	146	
Teacher Six	.320	
Teacher Seven	.588	

<sup>\* =</sup> Correlation is significant at the 0.10 level (1-tailed).

Parameters for strength of correlations were obtained from Cohen (1988). Teacher one was found to have a large or strong positive correlation with the averaged independent observations, r = .657, p = .078. Teacher two was found to have a strong positive correlation with the averaged independent observations, r = .679, p = .069. Teacher three was found to have a strong positive correlation with the averaged independent observations, r = .833, p = .020. Teacher four was found to have a strong positive correlation with the averaged independent observations , r = .765, p = .038. Using the power table from Cohen (1977), teachers one and two had at least 67% power to detect the correlations. Teacher three had at least 92% power, and teacher four had at least 81% power to detect the respective correlations. Though teachers one and two yielded significant results, the decrease in power increased the potential for a Type II error, which would be stating that there were no covariations when there actually were (Shadish, Cook, & Campbell, 2002). With such a low sample size, only correlations of .70 or higher will have adequate power (Cohen, 1977). The next step was to compute

<sup>\*\* =</sup> Correlation is significant at the 0.05 level (1-tailed).

confidence intervals for the four significant results to determine if they were statistically different from one another. After transforming Pearson's r to z<sup>1</sup>, using Cohen and Cohen's (1983) table, 95% confidence intervals were calculated. Because all four confidence intervals overlapped, there was no significant difference among the four correlations.

The second data set was used to correlate teachers' responses on behavior management variables with the independent observer's responses to the same variables. This looked at each teacher's response to the implementation of each behavior management technique, as well as all of the averaged behavior management techniques recorded by the independent observer. The average was calculated by adding each individual variable's coded number and dividing by number of variables (six).

Additionally, the Likert scale questions asking how difficult/easy it was for teachers to execute behavior management techniques were coded to allow for comparison to observations. They were coded as such: Very Easy = 4, Moderately Easy = 3, Neutral = 2, Moderately difficult = 1, Very Difficult = 0. Again, a one-tailed bivariate correlation was run, with alpha set at .10 When variables (individual positive reinforcement, group positive reinforcement, planned ignoring, redirection, time out, and punishment) were correlated, two significant results were found (see Table 2).

TABLE 2
Correlations of Teacher Reported Behavior Management Variables with Independent Observations by Variable

Variable	Independent Observation	
Individual Positive Reinforcement	.000	
Group Positive Reinforcement	.240	
Planned Ignoring	433	
Redirection	.354	
Time Out	***	
Punishment	.679**	
Overall Ease of Managing	710**	
Ease with Planned Ignoring	520	
Ease with Positive Reinforcement	167	

<sup>\* =</sup> Correlation is significant at the 0.10 level (1-tailed).

The variable of punishment had a strong positive correlation between teacher report and independent observation, r = .679, p = .047. The power for this correlation was at least 67%. Additionally, when the question of how difficult it is for teachers to be consistent and follow through when managing behaviors was correlated with the overall observed average for implementation of behavior management, it yielded a strong negative correlation, r = -.710, p = .037. The power for this correlation was 81%. The overall behavior management techniques category was then broken down into positive techniques (individual positive reinforcement and group positive reinforcement), neutral techniques (redirection and planned ignoring), and reductive techniques (time out and punishment). Each of these were then correlated with the teachers' overall reported ease or difficulty with behavior management. The neutral strategies was the only significant result, r = -.887, p = .004. Power was at least 92% for this correlation. Again, 95% confidence intervals were computed to determine if the three correlations were

<sup>\*\* =</sup> Correlation is significant at the 0.05 level (1-tailed).

<sup>\*\*\* =</sup> Cannot be computed because at least one of the variables is a constant

significantly different. The three confidence intervals overlapped, therefore indicating there was no statistically significant difference among the three. Additionally, the variable of time out could not be correlated, as the independent observer did not view any teachers consistently using time out. As a result, the variable was held constant. Due to the lack of covariation in this variable, it could not then covary with any other variable. However, when looking at the numbers, only two teachers reported that they use time out 1-2 times. Though no statistical analysis was run, it would appear that the teacher reports are similar to the findings of the independent observer.

Descriptive statistics were run on the second set of data that looked at each behavior management technique individually. These were run in order to determine means for implementation of each variable. This found that individual positive reinforcement yielded the highest mean from the independent observer; however, group positive reinforcement yielded the highest average for the teachers (see Table 3). The final step in the analyses was to compare frequencies of the "yes/no" questions at the beginning of the teacher surveys and the independent observations. For the independent observations, the researcher used the answer that was given for at least two out of three observations as the answer to compare to teacher reports. For the teacher surveys, six teachers stated they had a classroom wide behavior management system. The independent observer viewed five teachers using classwide systems. Four teachers stated they had their classroom rules posted; however, the observer did not see classroom rules posted in any teacher's room. Two teachers indicated that they review the rules before every activity, and the observer viewed two teachers review the rules before each activity. Six teachers indicated that they have a classroom schedule posted in the room.

The observer viewed a classroom schedule posted in six rooms. Finally, five teachers indicated that they have a routine for transitions, defined as change from one activity to another or a class leaving the room. The observer did not view transitions consistently in any room.

TABLE 3
Means of Teacher and Observer Behavior Management Technique Variables

Variable	Means	
Individual Positive Reinforcement		
Teacher Report	3	
Independent Observer	3.57	
Group Positive Reinforcement		
Teacher Report	3.4	
Independent Observer	.57	
Planned Ignoring		
Teacher Report	2	
Independent Observer	.71	
Redirection		
Teacher Report	3.29	
Independent Observer	3.14	
Time Out		
Teacher Report	.29	
Independent Observer	.0	
Punishment		
Teacher Report	.5714	
Independent Observer	.5714	

#### **Chapter IV**

#### **Purpose of the Study**

Behavior management is an important part of the classroom environment. If classroom behavior is not addressed, students will not be available to learn. With current pressures on teachers to make annual yearly progress (NCLB, 2002), behavior management should be an integral part of teacher training and professional development. Previous studies have indicated the effectiveness of behavior management strategies (Carr et al, 2009; Fabiano et al, 2008; Kamps et al, 2011; Shogren et al, 2011). While studies have proven certain behavior management strategies effective, and other studies have shown that teachers reported using the strategies (Turan et al, 2010), whether or not teachers are implementing behavior management strategies in the capacity that they report they do has not been explored. This study examined whether teacher reports of utilization of behavior management strategies correlated with independent observations of behavior management strategies.

#### **Correlations and Data Analysis**

The first data set yielded four statistically significant results. This indicated that four teachers had response sets that strongly correlated with the averages of the independent observer. For these four teachers, as they endorsed that they use a method frequently, the independent observer found they executed that method frequently, and as they endorsed that they did not execute a technique frequently, the independent observer viewed the teachers executing the technique infrequently. This demonstrates that over half of the teachers in the study are executing the behavior management techniques in a

manner that they say they are executing. Speculation about the nonsignificance of three teachers will be discussed in the limitations section.

This study also found that teacher reported punishment was strongly correlated to the observed use of punishment. Since punishment was seen infrequently, and teachers reported using it infrequently, this variable had a strong correlation. Turan et al (2010) found that teachers are more frequently using positive as opposed to reductive behavior management strategies. Since teachers indicated that they infrequently used punishment, this finding is consistent with the findings of previous research.

The second significant correlational analysis regarding behavior management techniques indicated that as teachers say they are more comfortable with executing behavior management techniques, the use of them decreases. However, this finding may be confounded, as many teachers do not believe in punishment or time out and therefore never use these techniques. Since those strategies were included in the average, this lowered the overall average of behavior management techniques. However, the overall category was broken up into three subcategories (positive, reductive, and neutral) to determine if this was the only reason. Only neutral strategies (i.e. planned ignoring and redirection) yielded a significant result. When looking at the teacher responses to neutral items, they appear to be the most frequently used; however, when statistical analyses were run, they were negatively correlated with overall teacher ease of use. This indicates that as teachers say they are more comfortable with executing behavior management techniques, they use neutral strategies less. Given the previous research by Turan et al (2010), one would predict that positive strategies would have a strong correlation to teachers' overall ease of behavior management strategy use.

Though no statistical analysis was run, three out of the five "yes/no" questions had similar findings between teacher reported and independent observation. The two most discrepant answers dealt with the presence of posted rules and a routine for transitions. While teachers may have felt that they had rules posted, they were difficult for the observer to find in the room, and in turn would be difficult for students to find in the room as well. Additionally, five teachers indicated that they had routines for transitions, but the observer saw no routines. This may have been due to the observation time allotment of 40 minutes. It is possible that the observer did not see continuous transitions in three observations, therefore marking that there was no routine for transitions.

Though the nonsignificant results do not clearly indicate that there is a relationship between actual and perceived behavior modification use, it does indicate a lack of covariance between what the teachers report and what the independent observer saw. In some cases, this may mean that teachers said they executed more positive than reductive strategies and the observer found that they executed more reductive than positive strategies. More will be discussed about this in the limitations sections.

Additionally, due to the small sample size, it was difficult, especially with variable comparison, to generate significant results. This will, again, be discussed in the limitations and future directions sections.

#### **Conclusions**

Previous research indicates that teachers feel as though they have insufficient training in behavior management (Merrett & Wheldall, 1993). Teachers do not feel as though their education properly addresses classroom management and prepares them to

manage difficult behaviors in the classroom. After they are in their careers, teachers do not feel as though there is enough focus in their schools on gaining knowledge in this area. Though this study did not ask any questions of how much training the teachers felt they had and whether they believed it was sufficient, a lack of training can be speculated as to why the teachers' reports of use of behavior management strategies do not always correlate with the independent observations. This may be for multiple reasons. First, the teachers may not be fully aware of what the behavior management techniques entail. They may feel that they are executing certain techniques, when they are not. This may have prompted them to endorse higher ratings for certain variables than what they are actually executing. Additionally, they might not have the tools that training would give them to consistently implement common behavior management techniques.

When looking at the means of the independent observations for each variable, the findings do reflect previous literature from Turan et al (2010). The highest average was for individual positive reinforcement. Included in this category is praise, for which Turan et al (2010) found that 75% of teachers report using on a daily basis. Time out was used least, again following in line with Turan et al's (2010) results showing that fewer teachers report using reductive strategies. This indicates a potential preference from teachers regarding positive or reductive behavior management strategies. Positive behavior management strategies are also shown to have an impact on increasing students' appropriate behaviors (Kamps, Wills, Heitzman-Powell & Culey, 2011). If teachers have a natural preference for positive behavior management strategies, it is beneficial for consultants to know this, as it can help when suggesting types of classroom management strategies. With a natural preference for these types of strategies, there should be more

buy-in from teachers as well as more consistent implementation. Since time outs and reductive strategies are infrequently recommended to teachers, due to the risk of perpetuating avoidant behavior, it is beneficial to ascertain that teachers are not using time outs frequently, suggesting that teachers are internalizing behaviorist recommendations.

#### Limitations

Unfortunately, due to financial and time constraints, there were multiple limitations to this study. The first of which has been discussed previously. The sample size was very small. Since there was only one independent observer, and no money or time to enlist the help of others, a small sample size was the only feasible possibility for this study. As a result, none of the findings in this study can be generalized to any other population except the special education teachers in this one district in New Jersey. Additionally, due to such a small sample size, it was difficult to determine significant results. In addition to being small, the sample was not random. The school district was specifically chosen due to a prior relationship that the researchers had with employees in the district. This previous relationship helped in attaining approval to conduct research in the district. The previous relationship leads into another limitation of the study.

The researchers currently conduct behavioral consultation in the district where the data was collected. While this is a confounding variable, it also poses many research questions that will be discussed in future directions. As far as limitations go, some, but not all, of the teachers in the study were trained by the researchers in behavior modification techniques. They were receiving these services previous to, through out, and after data collection. The training, as well as the relationships established with these

teachers were confounding variables to this study. Although the researchers attempted to control for the relationships by only giving some information and debriefing the teachers at the end, it was impossible to fully control the actions of the teachers with a behavioral consultant in the room. There is a potential that with a truly independent observer, the teachers may have executed behavior management strategies differently.

A second set of limitations pertained to the surveys and observations included in this study. Although the creation of the observations and surveys was based in literature (Martin & Pear, 2003; NSTM, 2010; Turan et al 2010), they are not valid or reliable instruments. However, the instruments do have high face validity in that it is very clear what they are measuring simply by reading the questions. One key element that was omitted from the teacher survey was a definition for each of the behavior management techniques. Although most of the teachers knew what each variable was, they should have been operationally defined better so as to avoid confusion. For example, some classes had classwide behavior management systems with group contingencies where every student had the opportunity to earn a reward; however, the teachers gave each reward out individually. The researcher classified this as individual positive reinforcement, but the teacher classified it as group positive reinforcement. With more specific definitions and examples for each variable, this confusion may have been avoided. Additionally, it would have been helpful to have more defined parameters for the researcher. Some classrooms worked on behavior as part of their academics, and it was difficult to determine if students were being rewarded for their behavior or for academic purposes. For example, if a class was working on social skills as a lesson and discussing speaking out of turn, students were praised for raising their hands. The

researcher considered this to be an instance of individual positive reinforcement; however, the teacher may not have considered this in regards to behavior as it was part of the academic lesson. Another teacher used their behavior management system when praising academically as well. For example, a token economy was used with fake dollar bills handed out and if a student was behaving appropriately, they received a dollar; however, they also received dollars when they answered questions correctly. It was difficult for the researcher to determine whether this should be counted for individual positive reinforcement. Future research should clearly define when what constitutes a behavior management strategy being recorded. With a larger research team, it would be advantageous to have multiple researchers agreeing upon what is actions constitute recording for each strategy and compile an exhaustive list.

#### **Future Directions**

The current study generated two major findings that coincide with previous literature. Over half of the teachers participating in the study had strong correlations between their reported use of behavior management strategies and the independent observations. A second finding indicated that teachers' reported use of punishment is strongly correlated with the independent observations, demonstrating that teachers are executing punishment in a manner in which they say they are executing punishment. Other findings indicated that as teachers are more comfortable with a behavior management strategy or as they feel one is easy to use, they use it less frequently. One potential reason for this outcome is the nature of the study. With such a small sample size, outcomes may be more variable, as one teacher may have skewed the data. However, another potential reason for this outcome could be a lack of awareness from

teachers once they have become comfortable with a type of behavior management. If teachers are just starting to use a management strategy, they may be more nervous and trying to execute it correctly; however, if a teacher is more comfortable, they may become more lenient with how they execute the behavior management strategy. Another potential deals with a factor that was not investigated in this study. If teachers are older and have been teaching for many years, they may be more comfortable with previous behavior management habits. Even though teachers may understand some of the strategies in this study and are comfortable using them, they may choose not to as they have been using other methods throughout their careers.

Although this study yielded significant results with interesting conclusions that can be applied to this individual district, the study can only be considered exploratory, due to its small sample size. Future research in this area would be beneficial, especially by utilizing larger sample sizes in a greater amount of districts and in more diverse areas. More questions regarding satisfaction with behavior management training could be utilized and compared to actual implementation of behavior management techniques. Since the research was collected in a district where behavior consultants are already employed, another interesting area would be to further understand the role of the behavior consultants by looking at teachers within a district that are trained by consultants and teachers that are not. Additionally, it would be interesting to compare districts that employ behavior consultants with districts that do not employ behavior consultants.

The current study only examined special education teachers. Another component that may be beneficial to research would be general education teachers. Previous literature has shown that teachers feel underprepared in their education in regards to

behavior management (Merrett & Wheldall, 1993); however, it was not indicated if there is a difference between the education that special education teachers receive compared to the education general education teachers receive. Future research could compare how many behavior management techniques were used, as well as add additional survey components to gauge the amount of training. Additionally, the amount of training could be compared to the amount and frequency of techniques utilized.

The research tools utilized are another important aspect for future research in this area. This study used surveys and observations that were not backed by research to prove their reliability and validity. If more research is to be done in this area, it is important to gain more of an understanding of the psychometrics of certain tools utilized in the research. Future studies should operationalize the behavior management techniques better. The current study did not provide specific definitions for each behavior management technique. In order to ensure that both independent observer and teacher interpreted techniques and their utilization in the same way, definitions should be included in the protocols.

Finally, future research should include multiple observers. By gaining inter-rater reliability, multiple observers could be employed to gain more ground and observe more teachers in more districts. As stated before, conducting research in more districts would mean greater generalizability for the findings. With that, researchers may gain a better understanding of what helps teachers with behavior management techniques. With districts bringing students with behavioral challenges back in district, it is important that they have the skills to ensure students receive the appropriate education they deserve.

#### References

- Abeson, A. & Zettel, J. (1977). The end of the quiet revolution: The Education for All Handicapped Children Act of 1975. *Exceptional Children*, 44, 114-128.
- American Psychiatric Association (2000). *Diagnostic and Statistical Manual of Mental Disorders* (4<sup>th</sup> edition, text revision). Washington, DC: American Psychiatric Association.
- American Psychiatric Association (2012). DSM-5 Criteria for Autism Spectrum Disorder

  Designed to Provide More Accurate Diagnosis and Treatment [Press Release]. Retrieved from http://www.dsm5.org/Documents/1203%20Autism%20Spectrum%20Disorders%20-%20DSM5.pdf
- Arnold. D.H., McWilliams, L., & Arnold, E.H. (1998) Teacher discipline and child misbehavior in day care: Untangling causality with correlational data. *Developmental Psychology*, *34*, 276-287.
- Avramidis, E., Bayliss, P., & Burden, R. (2000). A survey into mainstream teachers' attitudes towards the inclusion of children with special educational needs in the ordinary school in one local education authority. *Educational Psychology*, 20(2), 191-211.
- Baker, P.H. (2005). Managing student behavior: How ready are teachers to meet the challenge? *American Secondary Education*, *33*(3), 51-64.
- Ballard, J., Ramirez, B.A., & Weintraub, F.J. (1982). Special Education in America: Its Legal and Governmental Foundations. Reston, VA: The Council for Exceptional Children
- Blair, K.C., Umbreit, K., & Bos, C.S. (1999). Using functional assessment and children's preferences to improve the behavior of young children with behavioral disorders. *Behavioral Disorders*, 24, 151-166.

- Blakeley-Smith, A., Carr, E.G., Cale, S.I., & Owen-DeSchryver, J.S. (2009). A model for assessing and treating problem behavior associated with curricular difficulties in children with autism spectrum disorders. *Focus on Autism and Other Developmental Disabilities*, 24(3), 131-145.
- Brauner, C.B., & Stephens, C.B. (2006). Estimating the prevalence of early childhood serious emotional /behavioral disorders: Challenges and recommendations. *Public Health Reports*, *12*, 303-310.
- Buscaglia, L.F. & Williams, E.H. (1979). *Human Advocacy and PL94-142: The Educator's Roles*. Thorofare, NJ: CBS.
- Burstein, N, Sears, S., Wilcoxen, A., Cabello, B., & Spagna, M. (2004). Moving toward inclusive practices. *Remedial and Special Education*, *25(2)*, 104-116.
- Bushaw, W.J. & Lopez, S.J. (2010). A time for change: The 42<sup>nd</sup> Phi Delta Kappa/Gallup Poll of the public's attitudes toward the public schools. Phi Delta Kappa, 92(1), 9-26.
- Carlberg, C. & Kavale, K (1980). The efficacy of special versus regular class placement for exceptional children: A meta-analysis. *Journal of Special Education*, 14(3), 295-309.
- Center for Effective Collaboration and Practice. (2001). American Institute for Research.

  Functional Behavior Assessment. Retrieved from http://cecp.air.org/fba/
- Cohen, J. (1977). Statistical power analysis for the behavioral sciences: revised edition. New York: Academic Press.
- Cohen, J. (1988). Statistical power analysis for the behavioral sciences (2<sup>nd</sup> ed.) New Jersey: Lawrence Erlbaum.
- Cohen, J. & Cohen, P. (1983). Applied multiple regression/correlation analysis for the behavioral sciences (2<sup>nd</sup> ed.) New Jersey: Lawrence Erlbaum.

- D. Mazur, personal communication, January 18, 2012.
- Dobbs, H.A. (1950). Children with defects: A frame of reference. *Peabody Journal of Education*, 27(4), 228-236.
- Dobbs, H.A. (1951). Children with defects: Steps forward. *Peabody Journal of Education*, 29(3), 157-165.
- Dobbs, H.A. (1952). More certainty in educating children with defects. *Peabody Journal of Education*, 30(2), 66-74.
- Dobbs, H.A. (1953). Children with defects: A philosophical proposal. *Peabody Journal of Education*, 31(2), 67-77.
- Dobbs, H.A. (1958). Working together for troubled children and youth. *Peabody Journal of Education*, 36(2) 73-83.
- Dunlap, G., Lovannone, R., Wilson, K.J., Kincaid, D.K., & Strain, P. (2010). Prevent-teach-reinforce: A standardized model of school-based behavioral intervention. *Journal of Positive Behavior Interventions*, 12, 9-22.
- Fabiano, G.A., Pelham Jr., W.E., Karmazin, K., Kreher, K., Panahon, C.J., & Carlson, C. (2008).

  A group contingency program to improve the behavior of elementary school students in a cafeteria. *Behavior Modification*, *32(1)*, 121-132.
- Fairbanks, S., Sugai, G., Guardino, D., & Lathrop, M. (2007). Response to intervention:

  Examining classroom behavior support in second grade. *Exceptional Children*, 73, 288-310.
- Flannery, K.B., Guest, E.M., & Horner, R.H. (2010). School-wide positive behavior supports. *Principal Leadership*, 11(1), 38-43.

- Foxx, R.M. (1996). Twenty years of applied behavior analysis in treating the most severe problem behavior: Lessons learned. *The Behavior Analyst*, *19*, 225-235.
- Gallaudet, E.M. (1888). Life of Thomas Hopkins Gallaudet—Founder of Deaf-Mute Instruction in America. New York, NY: H. Holt and Co.
- Hall, E.H. (ND). *Howe, Dr. Samuel Gridley*. Retrieved from http://learningtogive.org/papers/paper105.html
- Hulac, D.M., and Benson, N. (2010). The use of group contingencies for preventing and managing disruptive behaviors. *Behavior Management*, 45(4), 257-262.
- Humphrey, C. (1956). Equal—what? Peabody Journal of Education, 204-206.
- Jaggers, C.H. (1947). Teaching children according to their individual needs. *Peabody Journal* of Education, 24(6)
- Kearney, A.J. (2008). Understanding Applied Behavior Analysis: An Introduction to ABA For Parents, Teachers, and Other Professionals. Philadelphia, PA: Jessica Kingsley Publishers.
- Kormann, R.J. and Weiss, M.J. (2008). Behavioral consultation in schools: Effectively meeting the needs of students with autism spectrum disorders. *The New Jersey Psychologist*, 58(3).
- Laski, F. (1994). On the 40<sup>th</sup> anniversary of *Brown v. Board of Education*: Footnotes for the historically impaired. *TASH Newsletter 20(5)*, 3-4.
- Levine, E.L & Wexler, E.M. (1981). *PL94-142: An Act of Congress*. New York, NY: Macmillan Publishing Co.
- Maurice, C. (1996). Behavioral Intervention for Young Children with Autism: A Manual for Parents and Professionals. Austin, TX: pro-ed.

- Merrett, F. & Wheldall, K. (1993). How do teachers learn to manage classroom behaviour? A study of teachers' opinions about their initial training with special reference to classroom behaviour management. *Educational Studies*, 19(1).
- Martin, G & Pear, J. (2003). *Behavior Modification: What It Is And How To Do It*. Upper Saddle River, NJ: Prentice Hall.
- Musti-Rao, S. and Haydon, T. (2011). Strategies to increase behavior-specific teacher praise in an inclusive environment. *Intervention in School and Clinic*, 47(2), 91-97.
- National Education Association (NEA). (2002). *The New IDEA Survival Guide*. United States: NEA.
- New Jersey Department of Education. (2011). 2010-2011 Enrollment. Retrieved from http://www.nj.gov/cgi-bin/education/data/enr11plus.pl
- New Jersey Department of Education (2012). Re-authorization of the IDEA 2004. Retrieved from http://www.nj.gov/education/specialed/idea/reauth/.
- No Child Left Behind Act of 2001, 20 U.S.C 70 § 6301 et seq. (2002).
- Ornstein, A.C. & Levine, D.U. (1997). Foundations of Education: 6th Edition. Boston, MA: Houghton Mifflin Company.
- Osgood, Robert L. (2008). The History of Special Education: A Struggle for Equality in American Public Schools. Westport, CT: Praeger.
- Osgood, Robert L. (2005). *The History of Inclusion in the United States*. Washington, D.C.: Gallaudet University Press.
- Petronko, M. R., Anesko, K. M. Nezu, A., & Pos, A. (1988). Natural setting therapeutic management (NSTM): Training in the natural environment. In J. M., Levy, P. H. Levy &

- B. Nivin (Eds.) <u>Strengthening families</u> (pp185-193). New York, NY: Young Adult Institute Press.
- Poling, A. & Fuqua, R.W. (1986). Research Methods in Applied Behavior Analysis: Issues and Advances. New York, NY: Plenum Press.
- Project: Natural Setting Therapeutic Management. (2010). All About NSTM. Retrieved from http://www.rci.rutgers.edu/~nstm/
- Rebell, M.A. & Wolff, J.R. (2009). *NCLB at the Crossroads: Reexamining the Federal Effort to Close the Achievement Gap.* New York, NY: Teachers College Press.
- Rundquist, J. (2011, March 22). Christie's budge cuts left NJ schools unable to provide 'thorough and efficient' education, judge rules. *The Star Ledger*. Retrieved from http://www.nj.com/news/index.ssf/2011/03/christies\_school\_aid\_cuts\_left.html
- Sapon-Shevin, Mara. (2007). Widening the Circle: The Power of Inclusive Classrooms. Boston, MA: Beacon Press.
- Shadish, W.R., Cook, T.D., & Campbell, D.T. (2002). Experimental and Quasi-Experimental

  Designs for Generalized Causal Inference. New York, NY: Houghton Mifflin Company.
- Skinner, B.F. (1938). *The Behavior of Organisms: An Experimental Analysis*. New York, NY: Appleton-Century-Crofts.
- Smith, D.E. (1951). Reinforcement as a factor in learning. *Peabody Journal of Education*, 29(3), 204-207.
- Smith, S.C., Lewis, T.J, Stormont, M. (2011). The effectiveness of two universal behavioral supports for children with externalizing behavior in head start classrooms. *Journal of Positive Behavior Supports*, *13*(3), 133-143.

- Tabachnick, B.G. & Fidell, L.S. (2007). *Using Multivariate Statistics:* 5<sup>th</sup> edition. Boston, MA: Pearson.
- The Salamanca statement and framework for action and special needs education: World conference on special needs education. Access and equality. (1994). New York: UNESCO
- Tiller, A.D., Varjas, K., Meyers, J., & Collins, A.S. (2010). General education teachers' perceptions of behavior management and intervention strategies. *Journal of Positive Behavior Interventions*, 12(2), 86-102.
- Turan, Y., Erbas, D., Ozakan, Y., & Kurkuoglu, B.U. (2010). Turkish special education teachers' reported use of positive and reductive interventions for problem behaviors: An examination of the variables associated with use. *Journal of Positive Behavior Interventions*, 12(4), 211-221.
- Turnbull, H.R. & Turnbull, A. (1979). Free Appropriate Public Education: Law and Implementation. Denver, CO: Love Publishing Company.
- United Nations Educational, Scientific, and Cultural Organization (UNESCO). (2012).

  \*\*Introducing UNESCO: What we are. Retrieved from http://www.unesco.org/new/en/unesco/about-us/who-we-are/introducing-unesco/
- U.S. Census. (2010). NJ-Middlesex borough. Retrieved from https://2010.census.gove/2010census/popmap/
- U.S. Department of Health and Human Services. (2001). *Biennial report to Congress on the status of children in Head Start programs*. Washington, D.C.: U.S. Department of Helth and Human Services, Administration for Children and Families, Administration on Children, Youth, and Families, Head Start Bureau.

- U.S. Department of Health and Human Services. (N.D.) *Program Services*. Retrieved from http://www.acf.hhs.gov/programs/ohs/programs/index.html
- What Works Clearinghouse. (2008). Institute of Education Sciences practice guide: Reducing behavior problems in the elementary school classroom. (NCEE #2008-012. Washington, D.C.: U.S. Department of Education Institute of Education Sciences. Retrieved from http://ies.ed.gov/ncee/wwc/practiceguide.aspx?sid=4
- Von der Embse, N., Brown, A. and Fortain, J. (2011). Facilitating inclusion by reducing problem behaviors for students with autism spectrum disorders. *Intervention in School and Clinic*, 41 (1), 22-30.
- What is school-wide PBIS? (n.d.). In *Positive Behavioral Interventions and Supports* online. Retrieved from http://www.pbis.org/school/default.aspx
- Wills, H.P., Kamps, D., Hansen, B., Conklin, C., Bellinger, S., Neaderhiser, J., & Nsubuga, B. (2010). The class-wide function-based intervention team program. *Preventing School Failure*, *54*(3), 164-171.
- Winzer, Margret A. (2009). From Integration to Inclusion: A History of Special Education in the 20<sup>th</sup> Century. Washington, D.C.: Gallaudet University Press
- Wood, B. K., Ferro, J. B., Umbreit, J, & Liaupsin, C. J. (2011). Addressing the challenging behavior of young children through systematic function-based intervention. *Topics in Early Childhood Education*, 30(4), 221-232.

Zettel, J.J. (1977). Public Law 94-142: The Education for All Handicapped Children Act. An Overview of the Federal Law. Retrieved from http://www.eric.ed.gov/ERICWebPortal/search/detailmini.jsp?\_nfpb=true&\_&ERICExtS earch\_SearchValue\_0=ED140554&ERICExtSearch\_SearchType\_0=no&accno=ED140554.

#### Appendix A

#### **Electronic Letter to Teachers**

Dear Teachers:

My name is Ashley Kipness. I am a doctoral student at Rutgers University. In order to complete my degree, I will be conducting research for my dissertation. My research will be done in the elementary schools of Middlesex School District. I am collecting data on classroom management of special education classrooms. Dr. Russell Kormann is the chairperson for my dissertation and will be supervising all aspects.

If you would like to take part in this research, please respond to this e-mail and let me know. If you have any questions, feel free to e-mail me with them before answering.

Thank you very much for your time and consideration.

Sincerely,

Ashley Kipness 3rd Year Doctoral Student Graduate School of Applied and Professional Psychology Rutgers, The State University of New Jersey

#### Appendix B

#### **Informed Consent**

#### Classroom Management in K-8 Special Education Classrooms

You are invited to participate in a research study that is being conducted by Ashley Kipness, a doctoral student in the Graduate School of Applied and Professional Psychology at Rutgers University. The professional literature is quite clear that supporting classified students with behavioral challenges can be difficult. The purpose of this research is to better understand classroom management in kindergarten through eighth grade special education classrooms.

Approximately six to ten special education teachers will participate in this study. Each teacher will be observed for three, 40-minute periods. After these observations, each teacher will be given a survey that will take about 20 minutes to complete. The study procedures include completion of a questionnaire, and several structured observations of your classroom.

If you agree to take part in the study, your observations will be linked to your survey, but the information will only been seen by the research team.

There are no foreseeable risks to participation in this study. While your classroom dynamics should not change, you may receive valuable information regarding the dynamics in your room.

Participation in this study is voluntary. You may choose not to participate, and you may withdraw at any time during the study procedures without any penalty to you. In addition, you may choose not to answer any questions with which you are not comfortable.

This research is confidential. Confidential means that the research records will include some information about you, such as your name and grade you teach. I will keep this information confidential by limiting individual's access to the research data and keeping it in a secure location. The research team and the Institutional Review Board at Rutgers University are the only parties that will be allowed to see the data, except as may be required by law. If a report of this study is published, or the results are presented at a professional conference, only group results will be stated, unless you have agreed otherwise.

If you have any questions about the study procedures, you may contact Ashley at 609-774-1551. If you have any questions about your rights as a research subject, you may contact the Sponsored Programs Administrator at Rutgers University at:

Rutgers University Institutional Review Board for the Protection of Human Subjects Office of Research and Sponsored Programs 3 Rutgers Plaza

New Brunswick, NJ 08901-8559

Tel: 848 932 4058

Email: <u>humansubjects@orsp.rutgers.edu</u>	
You will be given a copy of this consent form for	your records.
Sign below if you agree to participate in this resear	arch study:
Subject	Date
Principal Investigator	Date

#### Appendix C

#### **Debriefing Form**

#### **Study Title:**

Investigating the degree to which behavior management methods are used in the classroom: A comparison study of teacher report versus independent observation.

#### **About this Study:**

The purpose of this study is to better understand behavior management in the classroom. The goal is to further understand how teachers are using behavior modification. Additionally, the study is examining if there is a discrepancy between teachers' reports of behavior modification strategies usage and actual usage.

#### If you have questions, please contact the experimenters.

Experimenter(s): Ashley Kipness

Russell Kormann, Ph.D.

Contact Information: akipness@eden.rutgers.edu kormann@rci.rutgers.edu

For ethical concerns, contact:

Rutgers University Institutional Review Board for the Protection of Human Subjects Office of Research and Sponsored Programs 3 Rutgers Plaza

New Brunswick, NJ 08901-8559

Tel: 848 932 4058

Email: humansubjects@orsp.rutgers.edu

Thank you for your participation!

### Appendix D

		Teacher Sur	vey	
1. Do you ha	ve a classroom wid	e behavior manag	gement system?	
YES	NO			
2. Do you ha	ve classroom rules	posted?		
YES	NO			
3. Do you rev	view the rules before	e every activity?		
YES	NO			
4. Is your class	ssroom schedule po	osted in the room	?	
YES	NO			
5. Do you ha	ve a routine for tran	nsitions throughou	ut the day? (ie: clap, fli	ck the lights)
YES	NO			
6. In general, managing bel		is it for you to be	e consistent and follow	through when
1	2	3	4	5
Very Easy	Moderately Easy	Neutral	Moderately Difficult	Very Difficult
7. In general, classroom?	how difficult/easy	is it for you to ig	nore disruptive behavio	ors in the
1	2	3	4	5
Very Easy	Moderately Easy	Neutral	Moderately Difficult	Very Difficult

8. In general, how difficult/easy is it for you to reinforce a student who has been disruptive in the classroom for a positive behavior he shows later in the day?

1	2	3	4	5
Very Easy	Moderately	Neutral	Moderately	Very
	Easy		Difficult	Difficult

## In a 40-minute period how often do you use the following behavior management strategies?

9.	Individual positive reinforcement				
Never		1-2 times	3-4 times	4-5 times	5+ times
10.	Group	positive reinfo	orcement		
Never		1-2 times	3-4 times	4-5 times	5+ times
11.	Planne	ed Ignoring			
Never 12.	Redire		3-4 times	4-5 times	5+ times
Never		1-2 times	3-4 times	4-5 times	5+ times
13.	Time o	out			
Never		1-2 times	3-4 times	4-5 times	5+ times
14.	Punish	nment			

3-4 times

4-5 times

5+ times

Never

1-2 times

### Appendix E

	Structured Observation			
1. Does the teacher have a classroom wide behavior management system?				
YES	NO			
2. Does the teacher ha	ave classroom rules posted?			
YES	NO			
3. Does the teacher re	eview the rules before every activity?			
YES	NO			
4. Is the classroom sc	hedule posted in the room?			
YES	NO			
5. Does the teacher ha	ave a routine for transitions? (ie: clap, flick the lights)			
YES	NO			
In a 40-minute period how often does the teacher use the following behavior management strategies?				

9. Individual positive reinforcement

Never	1-2 times	3-4 times	4-5 times	5+ times		
10. Grou	Group positive reinforcement					
Never	1-2 times	3-4 times	4-5 times	5+ times		
11. Plan	ned Ignoring					
Never 12. Redi	1-2 times rection	3-4 times	4-5 times	5+ times		
Never	1-2 times	3-4 times	4-5 times	5+ times		
13. Time	eout					
Never	1-2 times	3-4 times	4-5 times	5+ times		

### 14. Punishment

Never 1-2 times 3-4 times 4-5 times 5+ times