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THE EFFECTS OF SELF-MANAGEMENT STRATEGIES  
FOR HIGH SCHOOL STUDENTS  
WITH DISABILITIES

by  
Michael McCoach

A Thesis

Submitted in partial fulfillment of the requirements of the  
Master of Arts in Special Education Degree  
of  
The Graduate School  
at  
Rowan University  
May, 2008

Approved by \_\_\_\_\_  
Advisor

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## ABSTRACT

Michael McCoach

THE EFFECTS OF SELF-MANAGEMENT STRATEGIES FOR HIGH SCHOOL  
STUDENTS WITH DISABILITIES

2007/2008

Dr. Joy Xin

Masters of Arts in Special Education

The purpose of this study was to examine the effects of self-management strategies to reduce the inappropriate calling out behavior and replace with an appropriate behavior, raising hands. A total of nine high school students attending a math class in the special education classroom participated in the study. A single subject research design with ABC phases was used. During Phase A, the observer recorded student calling-out behavior in each math class for four weeks as baseline data. During Phase B, students were given instruction on self-management to record their own behavior for four weeks. During Phase C, the self-management strategy was not required for students and their behavior occurrences were continued to be recorded. The results show that all participating students increased their appropriate behavior of raising hands and decreased the inappropriate behavior of calling out in the classroom.

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## CHAPTER ONE

### Introduction

#### Statement of Problems

In today's schools there appears to be a great deal of pressure from the prevailing peer culture to underachieve in school (Steinberg 1996). Causes of some students' underachievement can be influenced by feeling overwhelmed and incapable of doing better in the classroom. Additionally, teachers may have low expectations of student performance, and peer relationships seem more important than individual performance to some students. Typical high school students view peer acceptance and group membership as an important aspect of becoming an adolescent. This allows adolescents the opportunity to develop their personality and pro-social behaviors. Peer groups have a profound influence on how adolescents adjust themselves in a school setting (Steinberg, 1996).

The problems shown in the classroom by adolescents with disabilities are initiation of an aggressive behavior and reacting aggressively toward others, including bullying, threatening, or intimidating others, being physically abusive, destructing others property, showing little empathy and concern for others feelings, wishes, and well being. Lack of feelings of guilt or remorse, and tend to blame others for their own misdeeds are other problems demonstrated by this group of students in school (UCLA, 1999).

High school students with disabilities also exhibit academic problems. Typically, they have difficulties sustaining attention, listening comprehension, language production



in responding to questions (Zentall, 1993). These behavior problems affect their educational performance and create social problems with their peers (Hinshaw & Melnick, 1992).

In order to manage behaviors of students with disabilities, a variety of behavior modification strategies are implemented in classrooms. According to the National Dissemination Center for Children with Disabilities (NICHCY), these strategies include using effective classroom management, making instructional and curricular adaptations; teaching social problem solving skills; implementing school-wide and district-wide programs to teach students appropriate behaviors. Meanwhile, providing parent training and family therapy is important to support these students. Home-school collaboration will involve parents and family in a student's behavior strategies together with school interventions. Individual counseling and peer led interventions are also suggested as well as moral appeal, and affective education (Ripley, Waghorn, Kupper, 2003). The abundance of strategies can lead to confusion over what methods are most suited for a particular student at a given grade level. Certain principles should guide the selection of the appropriate strategy to reduce inappropriate behaviors. It is suggested that the least intrusive alternative strategy should be considered first, and the second is to teach an appropriate skill to replace the inappropriate behavior. Teachers must decide how to implement the modification strategy by consulting with their supervisors, parents, professionals of the child study team, and school psychologists (Alberto & Troutman, 2003).

Of the various behavior management strategies, self-management is found to be effective for students with disabilities (Jensen, Rhodes & Reavis, 1994). Self-

management is a type of intervention that begins to place the responsibility of monitoring behaviors on the student. By working in conjunction with the teacher, the student learns to modify his/her behavior with a simple tracking system that will reward the student with predetermined incentives as the behavioral objectives are met. Self-management strategies are emerging as a useful and effective approach for addressing problem behaviors of children with disabilities. Self-management techniques have been used successfully with a variety of populations ranging from individuals with mild to severe disabilities (Jensen, Rhodes & Reavis). In addition, the procedures of self-management have been effective in improving a wide range of behaviors including completing academic tasks, reducing off task behavior, increasing school attendance and social behaviors (Carr & Punzo, 1993).

Self-management strategies provide students an opportunity to take the initiative to modify their behavior in a discrete, non-intrusive way by themselves. This gives students an opportunity to maintain their social status in the classroom and allow the teacher to assist students in monitoring and maintaining an appropriate classroom environment. It is found that simply having a student record his/her occurrence of a specific behavior is sufficient in reducing the number of inappropriate behaviors and increasing an appropriate behavior (Broden, Hall, & Mitts, 1971).

Studies on self-management provide positive results for teachers and school psychologists. Several studies have shown that these interventions can be used with a variety of populations, including children with and without disabilities (Cole & Bambara, 1992). Particularly, self-monitoring techniques have been successful with students with emotional and behavioral disorders, mental retardation, and autism. It is found that self-

management strategies increase student academic performance and decrease disruptive behavior and aggression (Smith & Young, 1992). It is also noted that students were engaged in academic tasks with an increased on-task behavior when self-management strategies are provided in class (Skinner & Smith, 1992).

#### Purpose of the Study

The purpose of the study was to examine the effectiveness of the self-management strategy for high school students with disabilities in a special education classroom. During the study, students are taught to monitor their own behavior. The effect of self-management is evaluated by observing if students' inappropriate behavior is reduced and their appropriate behavior is increased. The objective of the study is to extinct the undesired behavior and to establish appropriate behavior with natural occurrences.

#### Significance of the Study

Self-management strategies have been considered to be effective for students with disabilities. These include promoting academic skills, decreasing inappropriate behaviors, and increasing pro-social behaviors (Mace & West, 1987). There is a likelihood of increased maintenance of behavior change when self-evaluation training is included within the context of behavior management systems. The procedures may be associated with improved generalization and less teacher time may be required to administer self-managed strategies, thus, freeing the teacher for other activities (Smith & Young., 1992).

Previous studies on self-management demonstrated that students could be responsible to recognize the inappropriate behavior, monitor their own behavior, and

provide self reinforcement. However, many times this strategy was applied to elementary and middle school students in classrooms. There is little research conducted in high school for students with disabilities. This present study has examined the relationship of the increase of appropriate behaviors and decrease of inappropriate behaviors in the classroom for target students through the use of self-management approach. It attempts to provide teachers and administrators with information for implementing self-management strategies in the classroom as well as evaluating such self-management strategies for high school students with disabilities.

### Research Questions

This study addresses the following research questions:

1. Will high school students with disabilities reduce inappropriate behaviors (e.g. calling out) when the self-management strategy is used?
2. Will high school students with disabilities increase appropriate behaviors (e.g. raising hands) when the self-management strategy is used?
3. Will high school students with disabilities maintain appropriate behaviors when the self-management strategy is removed?

### Definitions of the Terms

Calling out. Speak out without raising hands or teachers' permission.

Raising hand. Physically hold up one arm or hand to request for speaking out and raising comments, questions, or concerns.

## CHAPTER TWO

### Review of the Literature

#### A Brief History of Behavior Management

According to Alberto and Troutman (2003), the ancient Greeks hypothesized that a behavior was the result of interactions among four fluids in the body called humors. These humors stood for phlegm, blood, black bile, and yellow bile. It was thought these fluids gave off vapors which ascended to the brain. Imbalances in these fluids would cause differing behaviors' disorders in an individual. The perfect temperament for an individual resulted when none of the humors was in a different amount than the others (Alberto & Troutman, 2003).

Freud (1923) attempted to explain behavior by exploring certain biologically based drives. These drives provide energy which forms the "id", the first part of the human personality that seeks gratification without any thought of external controls. The second part of human personality which develops during infancy is the "ego". The "ego" includes the process of judgment, reasoning, language, and thought. The final part is the "superego", which develops as a tool of parental training. The "superego" includes the conscience, morals, ethics, and aspirations. Conflict would result within one's self when drives of another component countered that of another. Freud hypothesized that the "ego" would mediate these internal conflicts and those that progress through the stages successfully could become normal adults in society.

Piaget (1950) proposed a stage theory of intelligence which enabled a person to adapt to the environment. Five cognitive stages were developed based on his theory. The first, sensorimotor intelligence occurs from birth to 18 months. During this stage the infant is discovering the world and how to get things. The second stage, representational thinking occurs from the age of 18 months to about five years old. Included within the stage is language development, as the child begins to understand others' points of view. The third stage, intuitional thinking occurs from 5 to 7 years of age. The child begins to understand abstract concepts such as drawing conclusions, quantity, number, and weight. The fourth stage is concrete operations, which involves the ability to categorize and classify objects as distinct from solving problems purely in an abstract manner. The fifth and final stage of Piaget's stage theory is formal operations, which occurs from about 12 years of age through adulthood. The child no longer needs concrete ideas to solve problems and is able to deal with abstractions and hypothetical situations, and to think logically (Dember & Jenkins, 1970).

Skinner (1957), a behaviorist, developed behavior theories. According to his theory, positive reinforcement occurs when there is a behavior and a consequence. The consequence may increase a behavior's rate of occurrence. Punishment describes a behavior sequence followed by a consequence that decreases the behavior's future rate of occurrence. Behaviorists attempt to control the environment through the use of stimulus control. This describes a relationship between a behavior and an antecedent stimulus. They would determine the antecedent, and then, manipulate the environment to attempt to remove the stimulus to reduce the undesired behavior. Modeling is used for an outside individual to "model" the desired behavior as an example to imitate and learn.

These three theories: biological theory, cognitive theory, and behavioral theory have built a foundation for developing behavior management strategies. Based on these theories, different behavior management strategies have been developed and applied in the field. As teachers, we have to understand different strategies and their effects and weaknesses to consider which strategy is appropriate for our students.

### Behavior Problems of Students with Disabilities

According to the Diagnostic and Statistical Manual of Mental Disorders (American Psychiatric Association, 2000), students with disabilities often exhibit different symptoms in the classroom. For example, they have difficulty sustaining attention; following through class instruction and completing assigned work. They seem to be reluctant to engage in tasks that require continuous intellectual effort, and very easy to be distracted by extraneous stimuli. Further, these students lack of organizational skills. Forgetting daily assignments and routines and misplacing materials are always happening. In class, they would excessively blurt out answers without permission. These behavior problems interrupt or intrude on their peers and class activities.

According to Zentall (1993), students with disabilities have difficulty with sustaining attention, which affects their ability to perform at their maximum level throughout the school year. They have difficulties with language production when responding to questions, and lack of listening skills. Students with disabilities have difficulty in planning and become unlikely to ask for assistance due to impulse control problems with accepting delays in instruction (Zentall, 1993). Therefore, these students need specialized help to succeed in the classroom. Interventions in behavior management, and accommodations or modifications in academic tasks should be recommended.

In addition to their educational performance, these students often are social outcast among their peers because of their inappropriate behaviors (Hinshaw & Melnick, 1992). Because of their under achievement they are easy to be rejected by peers. If their behavior problems are not changed, these students would be at risk for negative outcomes in life and their behavior problems are likely to persist through adolescence and adulthood. Thus, early intervention is essential for students with disabilities.

It is found that many teachers in general education are apprehensive to bring students with disabilities into the classrooms for varying reasons (Prater & Hogan, 1992). Some teachers may perceive these students as problematic, aggressive, and unreceptive to requests (Fabre & Walker, 1987). Other teachers may complain that students with behavior problems require considerable attention that decreases their valuable teaching time in the class (Prater & Hogan, 1992). Therefore, frequent disciplines are necessary. Although rigorous disciplines are important, sometimes they can lead these students to feelings of isolation, being worthless, and withdrawal from their peer groups. In high school, peer acceptance is a pressure to individual students, and peer rejection can have an impact on their academic achievement (DuPaul & Hoff, 1998).

Students with disabilities also referred to “at-risk” students (Pigott, Fantuzzo, Heggie, & Clement, 1984). They lack academic productivity, deficits in self control and cooperation with their peers. Because of their peers’ rejection, the possibility of social isolation would put these students in danger of academic failure, and also lead to being troubled adults when they grow up.

Davies and Witt (2000) found that students with disabilities are impulsive and fail to wait their turn to respond to questions in class. This behavior problem can be



disruptive to teacher's instruction and class activities. Thus, they may not understand the assigned schoolwork because of their inattentiveness. Without following the teacher's directions they may have trouble finishing the assigned work. As a chain of effects, their behavior problems impact their academic learning, and their low academic achievement causes their low self esteem and low frustration tolerance.

Accurate belief of control and a positive self-worth are important attributes that influence a person's life. These traits are essential to develop in childhood and affect their decision making throughout their lives. It is found that students with disabilities have limited coping strategies, with self-perception difficulties, and problems in perceptions of situations (Gonzalez & Sellers, 2002). These students have significant amounts of stress, which has been found to adversely affect their academic performance, such as problem solving skills, and memory processing during testing situations.

It is found that students with disabilities have problems with maintaining self control (Gonzalez & Sellers, 2002). For example, they repeatedly feel out of control, and blame others when they are not satisfied. They "tend to view reality in unconventional, unrealistic, and illogical ways and often grossly distort reality due to their faulty perception of a situation. This phenomenon can cause them further feelings of "isolation and social discomfort" (p. 8). These negative views cause students to be depressed and feel helpless. Because of their poor self-esteem and negative opinions about themselves, they may underachieve in school. Their poor social skills affect them in all situations of life. Behavioral issues have an extreme impact on students with disabilities, especially their academic achievement and social relationship with their peers. Thus, behavior

intervention to promote their ability to manage themselves seems valuable for high school students with disabilities.

### Behavior Management Approaches

#### Behavior Therapy

This therapy was developed based on behavior theories. It involves changing unwanted behaviors by changing the antecedents and consequences for the student. The treatments include positive reinforcement, negative reinforcement, or a combination of the two. This intervention therapy was used for treating mentally ill people and also used in schools. However, the behavior therapy will not be effective for all students and is not enough to change the inappropriate behavior of these students within a normal range (Frazier & Merrell, 1997). Also, the treatment requires a large amount of time. The weakness is that it lacks of evidence to support a long term effect in other settings (Frazier & Merrell, 1997).

According to Cole (1992), teachers like to use this strategy. However, they do not like the large amount of time they have to spend. Therefore, strategies that are simple to use and reduce teacher's demand are more acceptable to teachers (Cole, 1992).

#### Cognitive-behavioral Therapy

Cognitive-behavioral therapy was developed based on the cognitive theory as an alternative to behavior therapy. It involves self-guidance, problem solving, and behavior modification. This therapy allows the user to make short-term gains in exhibiting positive behavior and an increase in academic work (Whalen, Henker, & Hinshaw, 1985). It has some limitations when using for students in school. There is not much support in a

long term effect. Additionally, there is no conclusive evidence that this treatment provides improvement over others. (Whalen et al.).

### Self-management

Self-management is a strategy developed based on the cognitive theory. It is thought of as a procedure designed to promote one's awareness of behavior and ability to function when he/she is aware of his/her own behavior (Nelson, Smith, Young, & Dodd, 1991). There are three subtypes including self monitoring, self evaluation, and self reinforcement.

Self-monitoring is used in several self management treatments. It involves being aware of and correctly labeling a student's own negative behavior (Baskett, 2001). Researchers found that this skill is the most important sub-skill because a student should be aware of his/her negative behavior before attempting to correct it (Baskett, 2001). Another skill involved in self-management programs is self evaluation.

Comparing one's own behavior against a self or externally determined standard is self- evaluation (Cole & Bambara, 1992). Self-evaluation is not used alone in interventions. Results from previous research show that off task behavior of a student in a classroom were reduced when self-evaluation procedures were used; nevertheless, little maintenance was noted in the general education classroom (Cole & Bambara, 1992). Therefore, self-evaluation is used with one or more sub-skills of self-management interventions.

Self-management programs is also used with self-reinforcement. This is a term started by Bandura and his social learning theory involving: (a) self determined standards, (b) self determination that the standards have been met, and (c) free,

unrestricted access to reinforcers (Cole & Bambara, 1992). Research on self-reinforcement shows that self-reinforcing leads to an increase in academic performance, an increase in positive behavior, and a decrease in negative behaviors (Cole & Bambara, 1992).

#### Effects of Self-Management for Students with Disabilities

Self-management has received positive reviews. In an analysis of self-management, Nelson et al. (1991) report several disadvantages of externally managed interventions. External monitors of student's behavior, such as educators, can misunderstand the behavior. For example, teachers can develop a bias and students may not attain a long term motivation to change their negative behavior based on outside evaluators (i.e. educators). Nelson and his colleagues find that self-monitoring interventions promote student's positive social and academic behaviors. Self-management interventions have been useful in treating different problems and populations (Mace & West, 1986). It can be used with a wide range of ages, from preschool to adulthood. It is noted that self-management has proven successful in treatment of motor and vocal tics and distractibility, problems that are particular prevalent for some students (Shapiro, 1984).

Research on self-management has revealed this strategy is appropriate for use in class (Mace & West, 1986). Since students spend most of their day in school, most of their disruptive behaviors take place in the education setting, predominately the classroom. Additionally, self-management allows a student to get immediate consequences for positive behaviors or academic scores increase. Skills learned in a class

where self management interventions are used is generalized to other social settings (Mace & West, 1986).

Students with disabilities are spending more instructional time in the general education classroom because of inclusion movement. In the inclusive environment teachers are not confident to implement effective interventions for helping students' with academic and behavior difficulties (Bussing et al.). Many teachers have concerns with interventions that are required to implement in the classroom. These include concerns about time, materials and resources, and personnel needed to implement the intervention strategies.

To address teacher concerns about using interventions in the classroom, Witt and Martens (1983) performed a study to find what aspects of interventions are most important for teachers to use with their students. They found that teachers were most concerned about an intervention being appropriate for the general education classroom, they do not have a negative side effect to students in the classroom, interventions are time efficient, and the educator has the skills needed to implement the intervention (Witt & Martens, 1983).

Webber and her colleagues (1993) discovered that self monitoring is convenient in the classroom, where the whole class monitors and evaluates their own behavior, leaving the educator to teach the lesson, and pose no risk of detrimental side effects. It is found that self management programs use inexpensive materials and procedures that are simple enough for teachers to figure out how to deliver and carry out the strategy (Webber et al.).

In 1972, Bolstad and Johnson performed research on self management to modify inappropriate classroom behaviors. A total of 38 first and second grade students participated in the study. The intervention was targeting three inappropriate behaviors: talking out, hitting others, and being out of seat. The self-management procedure involved the students being taught to evaluate their behavior and to provide themselves reinforcement if the behavior occurred. It was found the groups taught the self management strategy demonstrated fewer disruptive behaviors than the group without learning the strategy. It was also noted that the students were able to identify, regulate, and reinforce their own behaviors with a high degree of accuracy.

McLaughlin (1984) compared the effects of self-recording with consequences of a positive behavior and work completion. Twelve elementary school students diagnosed as behavioral disorders participated in the study. All of the students were in a self-contained classroom that employed a token economy system. Three dependent variables were: completing assignments, on-task behaviors, and self-recording accuracy of behaviors. McLaughlin (1984) divided the 12 students into three groups: no intervention group, self-recording group, and self-recording plus consequences group. The program ran for 8 weeks. At the end, it was concluded that the group with self -recording with consequences group had more success than the self recording only. However, both groups produced a significant increase in work completion, on task behavior, and recording accuracy as opposed to the control group. The researcher also followed up 12 students in a follow up study of six months and found that these students generalized and maintained their appropriate behaviors in various settings (McLaughlin).

McLaughlin, Burgess, and Sackville-West (1982) also compared self recording and matching. Six students with behavior disorders were taught to record their own behavior, when they were not working in class. Students in the self-recording group marked their behavior at various times during the day. Students in the self-recording and matching group recorded their target behavior and received reinforcers if their charts matched with the teacher's recording. The researchers found that students in both of the groups increased their academics and the replacement behavior was generalized in the follow up activities (McLaughlin et al.).

Self-management has proved effective for students with disabilities. In Smith and Young's study (1992), eight students with behavior disorders and learning disabilities participated. The intervention involved students self-recording their negative behavior in the class, while their instructor recorded the behavior to match with theirs. The students' assignment completion and correction rate were evaluated during the study. It was found that the student's negative behavior was decreased and the completion and correction of their academic work were increased. It appears that self-monitoring is effective for reducing disruptive behaviors of students with disabilities and positively impact their academics. It is found that when students learn to manage their own behavior, an increase occurs in their academic engagement.

Clark et al. (2004) conducted a study to examine the importance of autonomy in children with developmental disorders. Researchers found that mental health can be increased and unwanted behaviors decreased, when students control their own behaviors in their lives. This includes personal responsibility, problem solving, and independent thinking. Self-management is a strategy designed to teach students to become

responsible for their own behavior. It is found that students are able to develop an internal locus of control and to improve self concept, both have positive effects for their lives.

Prater and Hogan (1992) conducted a case study with one student. The student was a 14 year old male with a history of impulsive behavior and learning difficulties. The self-management program took place in a resource room, and two different general education classrooms. The student was taught to monitor his own behavior each time an audio cue was heard in the resource room. After four days, the sounds were phased out, and the student was provided with a poster that listed on-task behaviors. The student was told to monitor his behavior when he thought about the poster and the list of behaviors. In the two regular education classes, the student was told to monitor his behavior when he thought about the behavior, first with the poster in the classroom; after a few days the self monitoring was stopped, but the poster stayed in the class. The researchers found that the positive behavior increased with and without the cues, and even without self-recording. During the follow up days, the replacement behavior was still being maintained and the student's academic performance improved. The improvement was found both in the resource and general education settings (Prater & Hogan). In addition, impacts of the self- monitoring on the student's performance was found. Self-monitoring techniques can be used in the special and general education classrooms because maintenance of the positive effects was continued. In the study, the student improved his confidence in learning academics and received no stigmas from his peers. Teachers in the study were satisfied with the student's progress and requested for continuously using the poster as a



reminder for the class, because it had a positive impact on all students in the classroom (Prater and Hogan).

To further evaluate the effects and emphasize the importance of self-monitoring strategies for students, Fantuzzo, Polite, Cook, and Quinn (1988) performed an analysis of 26 studies on self-management. The researchers evaluated the number of components in each program, the effectiveness of the procedures, maintenance of the procedures, and relationship between self-monitoring and treatments. Fantuzzo et al. (1988) found that the student self-managed programs had greater treatment effects than external managed programs, such as behavior modification interventions. The researchers stated the more self directed a program, the more effective it would be. In addition, the researchers discovered that student directed programs produced more maintenance of appropriate behaviors than those administered by teachers.

McCarl, Svobodny, and Beare (1991) developed and implemented a self monitoring intervention for three elementary students identified as mild to moderate mentally handicapped. The researchers taught the students for four days about the difference between on- and off-task behaviors and determined the difference. The students evaluated their own behavior for 40 days, and self-recorded whether they were on or off task. It was found that the program resulted in an increase of students' appropriate behavior and academic productivity.

In Rooney, Polloway, and Hallahan's study (1985), students with learning disabilities and attention problems participated. They were asked to self-record their attention and respond to questions on a ditto, such as "Am I paying attention?" Two sub studies were conducted in different settings, one in a self contained class, and another in a

general education classroom. It seems that different settings did not impact the outcomes. The researchers found that all the students in the studies increased their on-task behavior and had an increase in attention. Results show that self-monitoring techniques can be used in general and special education classrooms to obtain the same outcomes successfully.

Swanson and Scarpati (1984) expanded the research on the maintenance of self monitoring strategies for children with disabilities in their study. They performed two different research projects with three students at the middle school. These students had severe learning and behavioral disabilities and placed in a self contained classroom.

In the first experiment, the researchers taught the students to instruct themselves on reading comprehension in an unfamiliar environment. Self instruction included teaching the children to use phrases such as “slow down”. Results indicated that self instruction positively affected reading and spelling performance. No matter whether it was in different settings.

In the second experiment, one student with severe disabilities was evaluated. The self instruction techniques were carried out in the regular classroom, where the student was told to self monitor how he was doing on his assignments. It was found that self-instruction was helpful to this student in increasing his completion of academic assignments. It appears that self-instruction training is effective for students with severe disabilities and its importance to special education students is imperative.

It is believed that self-management (including self-recording, self-monitoring, and self-instruction) is applicable for all settings (Mace & West, 1987). It is effective in increasing students' self-esteem because they manage their own behavior and

performance. When students manage themselves they decrease inappropriate behaviors, and thus, their academic performance is improved.

### Summary

Human behavior has attempted to be modified throughout the years with varying degrees of success. The ancient Greeks attempted to explain human behavior as an imbalance of fluids in the body. Freud (1923) explained behavior as biologically based drives and through three human personality traits, the “id”, “ego”, and the “superego”. Piaget (1950) proposed five cognitive stages that were benchmarked by attaining certain ages. Finally, Skinner (1957) proposed a behavior theory that uses positive reinforcement and manipulates the stimulus within the environment that causes the undesired behavior. These theories have led to great gains in the educational field in self-management strategies. Self-management is a strategy used to promote a student’s awareness of a particular unwanted behavior. The student is then responsible for recording the behavior and applying the predetermined reinforcement by using the wanted behavior in the classroom. Research has demonstrated the effect of self-management for students with disabilities. This present study continues to use self-management strategies for high school students with disabilities. It attempts to add information to the previous research and to further evaluate their effect on these youngsters to increase appropriate behaviors and reduce inappropriate behaviors in the classroom.

## CHAPTER THREE

### Methodology

#### Participants

##### Students

Nine high school students in a special education math class participated in this study. The students have various classifications in the categories of disabilities diagnosed by the child study team in school according to the state administrative code. An Individual Education Plan (IEP) for each student was developed, in which goals and objectives were addressed to increase his/her appropriate behavior such as raising hands in the classroom when the student wishes to speak. The student information is described as follows.

Student 1, a girl of age 17 is classified with a specific learning disability. She frequently calls out and is off task when working on class assignments.

Student 2, a girl of age 16 is classified as communication impaired. She is able to complete most assignments but needs redirection in doing so. She also frequently calls out in the classroom.

Student 3, a boy of age 16 is classified with a specific learning disability. He struggles to pay attention during the math class. He talks about off-topic issues and calls out in the classroom.

Student 4, a girl of age 17 is classified with ADHD. She has difficulty remaining on task in class, which affects her ability to complete assignments. When she is off task she frequently calls out in the classroom.

Student 5, a boy of age 17 is classified as multiply disabled. He has difficulty in completing in-class and homework assignments. He struggles with remaining on task during lessons which he feels difficult to understand. This often results in his calling out behavior in the classroom.

Student 6, a boy of age 16 is classified with a specific learning disability. He completes his assignments in class and at home. He calls out frequently in the classroom and has difficulty “remembering” to raise his hand when he wants to speak.

Student 7, a boy of age 16 is classified with specific learning disability. He has difficulty with remaining on-task and completing his assignments in the classroom. He calls out frequently in the classroom when he wants to join in the class discussion.

Student 8, a boy of age 18 is classified with ADHD. He has difficulty in completing assignments during the class period, but will take all the uncompleted work to finish during study hall and at home. He calls out in the classroom frequently.

Student 9, a boy of age 17 is classified with a specific learning disability. He has a 1 on 1 aide to assist him with additional instruction. He typically raises his hand in the classroom, but sometimes calls out.

#### Teacher

I am the teacher during this instructional period of 47 minutes when students are learning math concepts, computation, and graphing procedures. The observer is my teacher’s assistant in the classroom during that period.

## Setting

The study was conducted in a special education classroom of a high school located in southern New Jersey. The school is located in a suburban area of Philadelphia with 1,400 students attending grades 9 through 12. A school-wide behavior policy has been implemented. This policy covers several aspects of insubordination for the students in the classroom with a reactive approach. This study was conducted in a single classroom for 11<sup>th</sup> grade students using proactive approach, self management strategy.

## Materials

### Self-management material

The material used in this study is a behavior chart adopted from McCarney and Bauer's model in the *Learning Disability Intervention Manual* (1989). The instrument includes tracking periodic time increments for the observer to record if the students are raising their hands in the classroom. The frequency of raising hand behavior is then recorded on a weekly sheet for each student by the observer (see Appendix A).

### Observational material

There are two different observation sheets, one for the observer, and another for the participating students. The observation sheet for the observer is for time interval recording. A student's calling out behavior is recorded by making a mark during a specific time section (See Table 1 as an example). This observation sheet was used to collect baseline data and continued during the self-management implementation to record student behavior and after the implementation as follow-up to see if the students would maintain the appropriate behavior.

Table 1: Observation Form  
STUDENT #

		1	2	3	4	5	6	7	8	9	10	11	12
1													
2													
3													
4													
5													
6													
7													
8													
9													
10													
11													
12													
13													
14													
15													
16													
17													
18													
19													
20													

**Check the box if the student is calling out in the classroom without raising their hand**

Students' observation sheet includes Date, Name, Y for yes, N for no, and the question for self response (See Table 2 for example).

Table 2, student self-management form.

STUDENT DATA COLLECTION SHEET	
DATE: _____	NAME: _____
Did I raise my hand in class today when I Wanted to contribute to the discussion?	<span style="font-size: 2em; font-weight: bold;">Y</span> <span style="margin-left: 200px; font-size: 2em; font-weight: bold;">N</span>
Circle Y for "yes" or circle N for "no"	

## Procedures

### Instructional procedure

The instruction on self-management took place one day prior to the beginning of the study. During the instruction, the teacher went into the classroom and conducted a meeting with the class about the need for on-task behavior and the benefits to their academic achievement. The specific on-task behavior was modeled, and the off-task behavior was distinguished and defined. The self-management sheet was displayed and discussed. The teacher then demonstrated both on-task and off-task behaviors, and modeled how to use the self-management sheet. Lastly, the students were given the opportunity to ask questions about the on-task behavior and the procedures to self-manage and record their own behavior.

### Observational Procedure

At the end of each class the students were instructed to circle either “Y” or “N” on their self-management sheet. If they did raise their hand during the class and did not call out during their class activities, “Y” for yes would be circled, vice versa if they did not raise their hand and did call out in the classroom, “N” for no would be circled. After that, the observer, my teaching assistant would check each student’s sheet to make sure the completion of the recording.

## Research Design

A single subject research design with ABC phases was used in this study. During Phase A, the observer recorded student calling-out behavior in each math class for four weeks as baseline data. Students then were taught to record their own behavior in the classroom, during which the observer continued to record student behaviors for four



weeks as phase B. During phase C, the self-management strategy was not required for students, and the observer continued recording their behavior occurrences for an additional four weeks as maintenance.

#### Measurement Reliability

An inter-observer reliability was conducted by two observers, the teacher (serving as the researcher) and his teacher assistant in the classroom. Their agreement on behavior occurrences should be reached at 80%. If it was not reached at 80%, another teacher assistant was requested to do the following observation together to check for the accuracy.

#### Data Collection

Baseline data was collected with permission of the school principal and parents of the participating students. The students behaviors during the self-management activity in phase B as recorded and compared to those during baseline, as well as in phase C, when the self-management was withdrawn. A graph of ABC phases is presented in Chapter 4.

## CHAPTER IV

### RESULTS

A single subject research design with ABC phases was used in this study. During Phase A, the observer recorded student calling-out behavior in each math class for four weeks as baseline data. During Phase B, students were given instruction on self-management the day before they were responsible for tracking their own behaviors. During the instruction the teacher went into the classroom and conducted a meeting with the class about the need for on-task behavior and the benefits to their academic achievement. The specific on-task behavior was modeled, and the off task behavior was distinguished and defined. The self-management sheet was displayed and discussed. The teacher then demonstrated both on-task and off-task behaviors, and modeled how to use the self-management sheet. Student behavior was recorded by two observers. During Phase C, the self-management strategy was not required for students, and the observers continued recording student behavior occurrences for an additional four weeks. Figure 1 presents the students' calling out behavior in the ABC phases.

Figure 1: Frequency of calling out behavior.



Figure 1 shows that the effects of self-management strategies for those students with disabilities to reduce their inappropriate behavior. During phase A, the average number of calling out was 7 per student. During phase B, the average number of calling out was 4.7, a decrease of 2.3 calling out per student. During phase C, the average number of calling out was 4.5, a decrease of 0.2 from phase B. The result presents a 33% of decrease from phase A to phase B and a 36% of decrease from baseline (phase A) to maintenance (phase C). This shows that using self-management strategies, students reduced the inappropriate behavior of calling out. Even in phase C, students continued to maintain their progress and their behavior has remained at the similar level as that in phase B, when the self management strategy was implemented. Meanwhile, students presented the appropriate behavior, raising hands to replace their calling out in class. Figure 2 presents the students' behaviors of raising hand.

Figure 2: Frequency of raising hands.

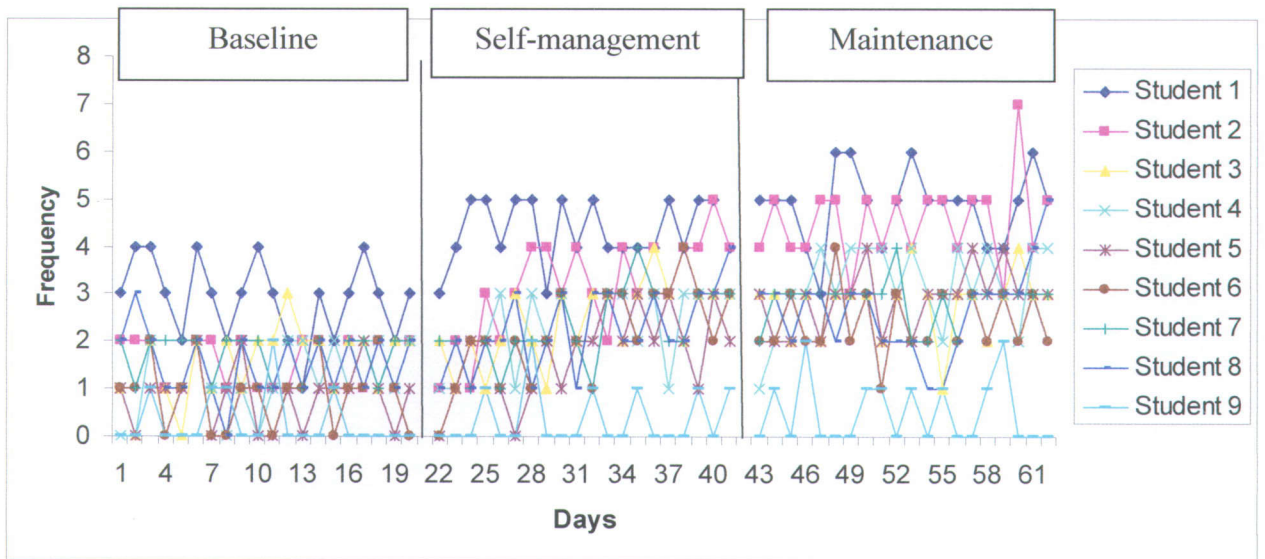


Figure 2 shows that the effects of self-management strategies for those students with disabilities to increase their appropriate behavior. During phase A, the average number of raising hands was 1.4 per student. During phase B, the average number of raising hands was 2.3, an increase of 0.9 times per student. During phase C, the average number of raising hands was 3.1, an increase of 0.8 from phase B. The results show that a 39% of increase of raising hands from phase A to phase B, and a 55% of increase from phase A to phase C. This shows that using self-management strategies, students increased the number of the appropriate behavior of raising hands. Because of the self-management training and modeling, students understand what the teachers expected of them during class, and they learned to self-control themselves. Thus, their calling out behavior reduced and raising hands increased even in phase C, maintenance.

## CHAPTER 5

### DISCUSSION

The purpose of the present investigation was to examine the effects of self-management for high school students with disabilities in the special education classroom. The findings are limited to a math class with nine high school students. Given this limitation, the results indicate that the students have increased their appropriate behavior and decreased their inappropriate behavior.

The first research question is to examine if high school students with disabilities reduce the inappropriate behavior when the self-management strategy is implemented. As baseline data presented, all participating students had calling out behavior in class. During the intervention, students were taught to use the self-management strategy to record their own behavior for 20 days. They discussed the impact of their calling out behavior and were aware of their own behavior. They were required to take responsibility to manage their own behavior instead of the teacher doing so. Positive reinforcement was provided for each student's self-management practice. The results show that all students decreased their calling out behavior, though individual differences exist.

These results are comparable to that of Smith and Young's study (1992). In their study, the intervention involved students' self-recording their inappropriate behavior in class, while the instructor recorded the behavior to match theirs. As a result, the student's inappropriate behavior was decreased. The consistent findings in the previous and

current studies demonstrate that self-management is effective for reducing disruptive behaviors of students with disabilities. It appears that student self-managed programs had greater treatment effects than external managed programs by teachers. The more self directed a program, the more effective it would be (Fantuzzo, Polite, Cook, & Quinn, 1988). Student directed programs seem to produce more appropriate behaviors than those administered by teachers.

The second research question addresses that when using self-management strategies, high school students with disabilities will increase appropriate behaviors. As the baseline data showed, all participating students lack of the appropriate behavior of raising hands when they request for speaking, providing comments, or asking questions. During the intervention, self-management strategies were discussed as well as modeling and role play of the appropriate behavior. There was an increase in appropriate behavior from the baseline to the intervention when self-monitoring was required of each student. The increase in appropriate behavior may be the result of the inappropriate behavior being replaced by the appropriate behavior, since a new behavior needs to fill the void of the vacant inappropriate behavior. Thus, there was an increase in appropriate behavior.

McLaughlin, Burgess, and Sackville-West (1982) compared self-recording strategy and its impact on student's behavior. In their study, students with disabilities record their behavior at various times during the day. They received reinforcers if their self recording charts matched with their teacher's recording. It was found that these students increased their appropriate replacement behavior. This finding is supported by the current study. Students in the current study learned self-management strategies to mark their own behavior on a self-checklist. They recorded their own performance in

each math class. Thus, their self-recording promotes their self-control, and eventually their inappropriate behavior is reduced.

The third research question hypothesized if high school students with disabilities maintain their appropriate behavior when the self-management strategy is removed. After 20 days of self-management strategy was applied, students were not required to use the self-checklist for 20 days. Their behavior was observed continuously. The results show that a decrease in the inappropriate behavior and an increase in the appropriate behavior of the students. This can be attributed to the student replacing the inappropriate behavior with an appropriate behavior. Generalization is a challenge for many students with disabilities. Maintaining their appropriate behavior is also a task for these students. In the current study, self-management strategies helped students control their own behavior, thus the appropriate behavior of raising their hands was increased.

#### Limitations

There are some limitations in this study. First, the scope of the study was limited to a math class of nine high school students. This small size of samples may only present the effect of self-management in certain classes with certain students. A larger group of participants would be valuable to the findings. Second, the study was conducted in a math class and the findings may be limited. Conducting a study in different academic areas would be valuable to verify the results. Third, the self-management strategy was provided to limited number of students in the study. Involving different age groups of students in the study may expand the results.

### Recommendations

Based upon the findings of this study, the following suggestions may be considered. First, further studies should be conducted with a larger population to confirm the findings of this study. Second, additional research should be conducted to replicate this study, and expand the scope to include students in learning other academic subjects at different grade levels.

### Conclusion

This study attempted to examine a self-management program that would decrease inappropriate behaviors and increase appropriate behaviors. The study attempted to prove that through a self-management program high school students with disabilities would become responsible for their own behavior in the classroom. Several positive aspects have been found in this study. For example, the instructional time has been increased because all students know what they are expected and they don't need to be redirected by the teacher. More students raise hands to ask questions and respond to the teacher's questions. This encourages their participation in class activities. As a result, their academic engagement is enhanced.

Self-management allows students to be responsible for their own behavior. The results show that using self-management strategies, students with disabilities become aware of their behavior and are positively involved in their own behavior management. This experience motivates these students to understand their responsibilities and to work towards their goals. Thus, their inappropriate behavior is reduced and replaced by an appropriate behavior. As a result, the class routine is better organized to allow students to participate in learning activities.



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## APPENDICES

APPENDIX A

Behavior Observation Form

BASELINE DATA SHEET

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

Behavior Tracked: Calling Out in Class

Day Number	Five Minute Time Periods								Total Tally Marks For Period
	1	2	3	4	5	6	7	8	
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									

## APPENDIX B

### Lesson Plan for Introducing Self-Management Strategies

#### Materials Needed:

- Handout Table 2 Student Data Collection Sheet

#### Statement of Objectives:

- Decrease student calling out in the classroom
- Increase student raising hand to speak in the classroom
- Students will be responsible for monitoring their own behavior in the classroom

#### Teacher Input

- What is self-management?
- How is self-management used in the classroom?
- What are the positive effects of self-management?

#### Guided Practice

- Teacher will model the inappropriate behavior and track when it occurs
- Teacher will model the appropriate behavior
- Student will model the inappropriate behavior and track when it occurs
- Student will model appropriate behavior

#### Independent Practice

- Students will monitor their behavior over the next 20 days

#### Closure



- Ask students what are the positive effects of self-management
- Ask students to model the inappropriate behavior
- Ask students to model the appropriate behavior

## APPENDIX C

### Letter to Parent

Dear Parent/Guardian:

I am a graduate student in the Special Education Department at Rowan University. I will be conducting a research project under the supervision of Dr. Joy Xin as part of my master's thesis concerning how students increase positive behaviors through tracking the number of times they call out in the classroom. I am requesting permission for your student to participate in this research. The goal of this study is to determine if raising their hand will increase if they are aware of the number of times they call out in class.

Student's will be given a sheet to record tally marks for every time they call out without raising their hand in the classroom. Student's names will not be used so that confidentiality may be insured. All data will be reported in terms of group results; individual results will not be reported.

Your decision whether or not to allow your child to participate in this study will have absolutely no effect on your student's standing in their class. At the conclusion of the study a summary of the group results will be made available to all interested parents. If you have any questions or concerns please contact me at (856)287-2661 or you may contact Dr. Joy Xin at Rowan university. Thank you.

Sincerely,  
Mike McCoach

Please indicate whether or not you wish to have your student participate in this study by checking the appropriate statement below and returning this letter to your child's teacher by Nov. 2.

\_\_\_\_\_ I grant permission for my student \_\_\_\_\_ to participate in this study.

\_\_\_\_\_ I do not grant permission for my student \_\_\_\_\_ to participate in this study.

