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**THE EFFECTIVENESS OF USING SELF-MONITORING, IN CONJUNCTION  
WITH A SCHOOL-WIDE POSITIVE BEHAVIOR SUPPORT SYSTEM, TO  
INCREASE ON-TASK BEHAVIOR AND ACADEMIC PERFORMANCE OF  
ALTERNATIVE HIGH SCHOOL STUDENTS WITH DISABILITIES**

by

Joe Wojceichowski

A Thesis

Submitted to the  
Department of Interdisciplinary and Inclusive Education  
College of Education

In partial fulfillment of the requirement

For the degree of  
Master of Arts in Special Education

at

Rowan University

May 12<sup>th</sup>, 2017

Thesis Chair: Amy Accardo, Ed.D.

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## **Dedications**

I would like to dedicate this manuscript to my best friend, Megan for her love and support throughout this entire process. Additionally, I would like to dedicate this manuscript to my grandparents, Vera and Sal, for their consistent support throughout graduate school.

## **Acknowledgement**

I would like to express my appreciation to Dr. Amy Accardo, Ed.D. for her guidance and help throughout this research. Dr. Accardo's detailed and timely feedback was instrumental throughout the entire thesis writing process.

## **Abstract**

Joe Wojceichowski

THE EFFECTIVENESS OF USING SELF-MONITORING, IN CONJUNCTION WITH  
A SCHOOL-WIDE POSITIVE BEHAVIOR SUPPORT SYSTEM, TO INCREASE ON-  
TASK BEHAVIOR AND ACADEMIC PERFORMANCE OF ALTERNATIVE HIGH  
SCHOOL STUDENTS WITH DISABILITIES

2016-2017

Amy Accardo, Ed.D.

Master of Arts in Special Education

The purpose of this study is to: (a) examine the effectiveness of using self-monitoring in conjunction with SWPBS to increase on-task behavior, (b) examine the effectiveness of using self-monitoring in conjunction with SWPBS to increase academic performance of alternative high school students with disabilities, and (c) evaluate if students are pleased with self-monitoring in conjunction with SWPBS. Five alternative high school students classified with a variety of disabilities participated in this study. Using a single subject ABAB design, the intervention was implemented for 40 minute class periods in a pull-out replacement classroom. During Baseline 1 & 2, the special education teacher collected data of on-task behavior and academic performance for one week. During intervention, students self-monitored their on-task behavior and performance on academic tasks. Results indicate that all participants increased their on-task behavior and performance on academic tasks. Additionally, students felt self-monitoring helped them improve their on-task behavior but were unsure if they would use the intervention again.

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## **Chapter 1**

### **Introduction**

Positive and appropriate behavior is crucial for any member of a society. Societies determine how one should act and behave in particular situations through rules, laws, and values (Ahmad, Brodsky, Crofts, & Ellis, 2004). One example of a society with rules, laws, and values is a school community. School communities develop their own rules and expectations that govern the daily lives of its students and staff. These rules and expectations are in place to promote student achievement, keep order, and ensure an efficient routine (Sugai & Horner, 2006).

The rules a school develops and writes are expected to be followed and maintained by students and staff, and if not followed, consequences exist. The consequences vary based on the severity, frequency, and total number of infractions (Sugai & Horner, 2006). Consequences are put in place to ensure the efficient and effective education of all students. However, when a student continually misbehaves or breaks the rules of the school district, the student is impeding on others and his or her own education. Therefore, measures have been implemented to limit and control student behavior and achievement (Sugai & Horner, 2006). In the event a student continually misbehaves with no successful prior interventions, alternative placements are considered. School districts often seek public or private alternative schools for students who have demonstrated difficulty in the traditional setting (Saunders & Saunders, 2001).

Alternative high schools are designed to meet the needs of a group of students who are not on track to successfully graduate due to behavior or academic reasons, as well as, develop the necessary academic and social skills to succeed in adult life

(Wilkerson, Afacan, Perzigian, Justin, & Lequia, 2016). Alternative programs offer community-based support systems that are designed to support at-risk students (Saunders & Saunders, 2001). These programs usually implement an approach that is different from traditional settings (Coyl, Jone, & Dick, 2004). Alternative high schools traditionally have School-Wide Positive Behavior Support Systems (SWPBS) in place for the entire population (Coyl et al., 2004). SWPBS is a multi-tiered approach that utilizes positive support strategies to promote academic achievement and social success for all students (Horner et al., 2009). The tiers of the SWPBS vary in intensity, with Tier 1 being school-wide, while Tier 2 and 3 include student specific interventions (Freeman et al., 2016). Moreover, IDEA supports SWPBS as the preferred method of support for students with disabilities (Bradway, Pinkey, & Flannery, 2015).

SWPBS is a team-problem solving approach that fosters the same community environment as alternative programs (Swain-Bradway, Pinkney, and Flannery, 2015; Saunders & Saunders, 2001). SWPBS is research-based and has been shown to support positive outcomes for student problem behavior (Kennedy, et al., 2001). Additionally, a positive relationship has been established between SWPBS and attendance rates (Freeman et al., 2016). Although SWPBS has been shown to increase attendance rates, SWPBS effects on academic performance have been less promising (Freeman et al., 2016).

Self-monitoring, a strategy for monitoring and regulating one's own behavior (Bruhn, McDaniel, & Kreigh, 2015), is a technique students can use in conjunction with SWPBS. Research suggests self-monitoring is an effective strategy for improving reading performance, on-task behavior, task completion, and overall problem behavior (Bruhn et

al., 2015; Wills & Mason 2014). In addition to the measures already implemented in alternative high schools, self-monitoring could prove to be an effective method for increasing appropriate behaviors (Bruhn et al., 2016).

### **Statement of the Problem**

Alternative schools have become a popular option for school districts to place students who are not successful in a traditional high school setting (Saunders & Saunders, 2001). These programs provide alternatives to expelling students and offer a more supportive environment for students to be successful (Saunders & Saunders). Alternative school programs have been shown to increase positive student behavior and attendance (Coyle et al., 2004). One explanation for the success of alternative programs is the use of school-wide supports and interventions (Coyle et al., 2004). SWPBS, the multi-tiered approach designed to increase positive behavior, academic, and social success, has yielded positive results in regards to attendance and behavior (Freeman et al., 2016). However, Flannery, Frank, Kato, Doren, and Fenning (2013) suggest it takes up to two years to effectively implement SWPBS. Furthermore, students in alternative schools have been shown to decline in academic performance after transitioning to alternative schools (Wilkerson et al., 2016). Therefore, further research is necessary to evaluate other interventions alternative programs can implement to increase student success. Self-monitoring, a strategy for regulating behavior (Bruhn et al., 2015), has been shown to improve on-task behavior and increase academic performance (Shimabukuro, Prater, Jenkins, & Edelen-Smith, 1999; Graham-Day, Gardener, & Hsin, 2010; Wills & Mason, 2014; Bruhn et al., 2015). Self-monitoring may impact students' behavior and academics (Rafferty, 2010), a goal of many alternative programs (Coyle et al., 2004).

## **Significance of the Study**

Much of the research that has been conducted on SWPBS includes elementary and middle schools, but few studies have been conducted on the use of SWPBS in high school settings (Flannery et al., 2013). Wilkerson et al., (2016) call for further research to determine the appropriate recipe for success for students enrolled in alternative high schools. Therefore, further research is needed investigating the use of SWPBS to increase academic engagement and on-task behavior. Moreover, much of the self-monitoring studies have focused on elementary students (Wills & Mason 2014), and there is limited research focusing on self-monitoring with secondary students.

Further research is needed to determine the effectiveness of self-monitoring combined with SWPBS for students in an alternative high school setting, particularly in the area of on-task behavior and academic performance. This study aims to follow the suggestions of Wilkerson et al. (2016) and focus on SWPBS with students in a high school setting, and Bruhn et al. (2015) to investigate the combined use of SWPBS with student self-monitoring. In addition, this study has the potential to empower the student participants to be responsible for their own behavior and to report that behavior via a SWPBS system. Specifically, students will be trained on expected and appropriate behavior and will self-monitor their own progress daily. The more a student is involved in his or her own behavior plan and decision making, the more responsible they may become, particularly at the secondary school level.

## **Purpose of Study**

The purpose of this study is to: (a) examine the effectiveness of using self-monitoring in conjunction with SWPBS to increase on-task behavior, (b) examine the

effectiveness of using self-monitoring in conjunction with SWPBS to increase academic performance for alternative high school students with disabilities, and (c) evaluate if students are pleased with self-monitoring in conjunction with SWPBS.

### **Research Questions**

1. Does the use of self-monitoring, in conjunction with SWPBS, increase the on-task behavior of students attending an alternative high school?
2. Does the use of self-monitoring, in conjunction with SWPBS, increase the academic performance of students attending an alternative high school?
3. Are students attending an alternative high school satisfied with the use of self-monitoring in conjunction with SWPBS?

### **Key Terms**

For the purpose of this study, SWPBS will be defined as a multi-tiered approach that utilizes positive support strategies to promote academic achievement and social success (Horner et al., 2009), as the preferred method of support for students with disabilities (Bradway et al., 2015).

For the purpose of this study, self-monitoring will be defined as a strategy for monitoring and regulating one's own behavior in which the students records and evaluates their behavior (Bruhn et al., 2015).

For the purpose of this study, alternative schools will be defined as institutions that focus on behavioral remediation and implement procedures to assist students in changing a behavior or developing a new desired behavior (Wilkerson et al., 2016).

## **Chapter 2**

### **Review of Literature**

An important goal of education is for students to become self-sufficient learners who can independently manage behaviors, achieve academic success, and become positive contributing members of society (Harris, Friedlander, Saddler, Frizzelle, & Graham, 2005; Rafferty, 2010). In order to achieve this goal, students must not just rely on assistance from teachers or support staff, but must independently manage their own behavior and success (Rafferty, 2010). Although the goal is achieved by many students, other students struggle to meet the academic and behavioral demands of school (Fallon, O’Keeffe, Gage, & Sugai, 2015). Therefore, strategies and interventions need to be implemented to help struggling students become successful (Graham-Day et al., 2010). School-wide positive behavior support (SWPBS), an evidence-based system of interventions used to improve school climate, reduce discipline, and increase student achievement (Swain-Bradway, Pinkney, & Flannery, 2015), has been shown to increase positive behavior in school students (Kennedy et al., 2001; Flannery et al., 2013; Freeman et al., 2015). Additionally, studies have suggested that self-monitoring, a strategy for regulating behavior (Bruhn et al., 2015), has been shown to improve on-task behavior and increase academic performance (Shimabukuro et al., 1999; Graham-Day et al., 2010; Wills & Mason, 2014; Bruhn et al., 2015).

#### **Alternative High School Settings**

Student behavior, and the severity of student behavior perceived as inappropriate, can lead to a response from a school or district (Wilkerson et al., 2016). Depending on the behavior, schools may respond by suspension, expulsion, and/or an alternative

placement (Wilkerson et al., 2016). Alternative schools are institutions that focus on behavioral remediation and implement procedures to assist students in changing a behavior or developing a new desired behavior (Wilkerson et al., 2016). Wilkerson et al. (2016) investigated the effectiveness of alternative schools on attendance, credits earned, number of office referrals, and the number of student suspensions. In order to do this, Wilkerson et al. used a propensity score matching technique to match students from a Midwest school district placed in alternative schools, with students from traditional settings with similar behavioral trajectories (2016). At the conclusion of the study, Wilkerson et al. (2016) found that enrollment in an alternative setting is associated with fewer office referrals, significantly lower attendance, and fewer credits earned per semester. Furthermore, no significant relationship was identified between enrollment and suspensions.

Students attend alternative schools for a variety of reasons including behavioral or vocational needs, credit completion, truancy issues, substance abuse, and/or emotional needs (Coyle et al., 2004). To gain a better understanding of how alternative settings affect student outcomes, Coyle et al. (2004) examined the influence of peer relationships on behavior, attitudes, and intentions. Using surveys and interviews, researchers collected data on 95 alternative high school students by comparing surveys about their previous traditional high school setting and their current alternative high school setting (Coyle et al., 2004). The research team gathered evidence to suggest that peer relationships improved when students began attending an alternative setting, and that positive behavior, attitudes, and intentions increased (Coyle et al., 2004).

In a similar study, Saunders and Saunders (2001), surveyed students in a small Midwestern city in 1995 about their perceptions of school, and their interactions with teachers, students, and counselors. Saunders and Saunders (2001) used the same method as Coyl et al. (2004), and surveyed students about their previous school as well as their current school. Results from the study indicate significantly increased positive perceptions of school and positive interactions with teachers, counselors, and students when students are placed in an alternative setting (Saunders & Saunders, 2001).

Although these studies provide positive evidence to support alternative school placements, Wilkerson et al. calls for future research to be conducted within alternative schools to identify a variety of evidence-based interventions (2016). Additionally, Coyl et al. suggest that future studies investigate the use of interventions with alternative high school students from diverse backgrounds (2004).

### **School-Wide Positive Behavior Support**

SWPBS is a system for implementing and supporting a positive school culture and academic success through structured behavioral supports (Horner et al., 2009). In addition, SWPBS is a system that places behavioral expectations on students throughout the entire course of the school day, including non-classroom settings (Horner et al., 2009). A major focus of SWPBS is for the school community to take ownership of the implemented supports and to expect behaviors from peers and staff that are both consistent and appropriate (Horner et al., 2004). In a study, Horner et al. evaluated the effectiveness on the implementation and sustainability of SWPBS at the elementary school level (2009). The research team examined elementary schools over three years in Hawaii and Illinois that were receiving training in SWPBS (Horner et al. 2009). The

results from the study suggest that schools who receive training in SWPBS have a more effective implementation process, improved perceptions of school safety, and lower discipline referrals (Horner et al. 2009). Furthering the research of Horner et al. (2009), McIntosh, Mercer, Hume, Frank, and Turri (2013), sought to identify the factors related to sustained implementation of SWPBS. The research team surveyed 217 schools across 14 states in the United States using an index to determine the factors closely related to sustainability of SWPBS (McIntosh et al., 2013). McIntosh et al. suggest that school use of data, access to resources, and continuing professional development, are factors closely related to sustained implementation of SWPBS (2013).

Moreover, a study conducted by Flannery et al. (2013) furthered the research on implementation of SWPBS by examining the implementation of SWPBS in eight high schools in the Northwest United States. The research team used a schoolwide evaluation tool designed to measure implementation of SWPBS (Flannery et al., 2013). Flannery et al. suggest that in order to achieve noteworthy and purposeful changes, implementation of SWPBS requires a minimum implementation of two years (2013). More recently, Freeman et al. (2015) supported the findings of Flannery et al. (2013) in a study that suggests schools may find lower drop-out rates after implementing SWPBS for longer durations (Freeman et al., 2015). The research team evaluated 883 schools across 37 states using an interrupted time design and evaluated the relationship between implementation time and dropout rates (Flannery et al., 2015). Additionally, Sugai and Horner, 2006 and Swain-Bradway et al., 2015 provide detailed descriptions of SWPBS, and provide step-by-step instructions for schools to implement SWPBS with descriptions of each step.

SWPBS is a three-tier approach where all students are engaged in the first tier of support while other students, based on needs of interventions, may be in the more intensive levels of tier 2 or 3 (Horner, Sugai, & Anderson, 2010). In one study, a research team investigated the quality of behavior support plans created by schools who have implemented SWPBS versus schools who have not (Medley, Little, & Akin-Little, 2007). Medley et al. (2007) evaluated the behavioral support plans of nine middle schools in South Carolina using the Behavior Support Plan-Quality Evaluation (BSP-QE). The results indicated that schools who had implemented SWPBS had created more effective individual behavior support plans for students (Medley et al., 2007). Although plans from schools who have implemented SWPBS were higher, some of these plans were still rated as inefficient (Medley et al., 2007).

### **Self-Monitoring to Increase On-Task Behavior**

Self-monitoring is an intervention for managing behavior in which the student records and evaluates their own behavior (Bruhn et al., 2015). Self-monitoring has been shown to impact both behavior and academics (Rafferty, 2010). In a foundational study, Reid and Harris, evaluated the effects of two forms of self-monitoring, self-monitoring for attention and self-monitoring for performance, for on-task behavior (1993). The study included 28 students with learning disabilities from a suburban school district who were taught each self-monitoring strategy (Reid & Harris, 1993). The results of the study suggest that each of the methods had a positive impact for on-task behavior, and neither method showed a greater significant increase for on-task behavior (Reid & Harris, 1993). However, students who participated in the study were more satisfied with the self-monitoring for performance method over self-monitoring for attention (Reid & Harris,

1993). More recently, Graham-Day et al. evaluated the effectiveness of self-monitoring on three tenth-grade students with disabilities (2010). The researchers used an alternating treatment design and found evidence that suggest self-monitoring did increase on-task behavior (Graham-Day et al., 2010).

Furthermore, Wills and Mason, evaluated the effectiveness of using a self-monitoring application to increase on-task behavior in a science classroom (2014). The research team implemented their study in a mid-western school using an ABAB withdrawal design (Wills & Mason, 2014). The results of the study suggest that self-monitoring increases positive improvements to on-task behavior (Wills & Mason, 2014).

In a similar study, Bruhn et al. used technology to record the self-monitoring behavior of students and to investigate the effect of self-monitoring on student on-task behavior using an ABAB design (2015). The study included a total of 17 students and took place within two special education middle school classrooms in the Midwest (Bruhn et al., 2015). Results suggest using technology to record self-monitoring improved on-task behavior (Bruhn et al., 2015). Bruhn et al. (2016) then replicated and extended the study of Bruhn et al. (2015) by evaluating the effects of using a technology based app to record self-monitoring behavior (Bruhn et al. 2016). Moreover, in this follow-up study the research team included an additional maintenance phase, as well as, used teacher recorded data to alter interventions based on student responses (Bruhn et al., 2016). The results from this study corroborate the initial results of Bruhn et al. (2015) and suggest that using technology to record self-monitoring behavior results in an increase of on-task behavior.

Although there are several studies that suggest self-monitoring increases on-task behavior (Wills & Mason, 2104; Bruhn et al., 2015; Bruhn et al., 2016; Reid & Harris, 1993; Graham-Day et al., 2010), contrasting studies also point to some short-comings of the method (Wills & Mason, 2014; Graham-Day, 2010). Wills and Mason report that self-monitoring increases student on-task behavior, but did not decrease disruptive behavior (2014). Similarly, Graham-day et al. report that self-monitoring increases on-task behavior, but for one student in the study, reinforcement was needed in conjunction with self-monitoring (2010).

### **Self-Monitoring to Increase Academic Performance**

In addition to improving on-task behavior, self-monitoring has been shown to benefit academic performance (Reid & Harris, 1993; Harris et al., 2005; Shimabukukuro et al., 1999; Levendoski & Cartledge, 2000). In the aforementioned study by Reid and Harris, the research team evaluated two forms of self-monitoring, self-monitoring for attention and self-monitoring for performance, to discover a relationship between self-monitoring and on-task behavior, as well as academic performance (1993). In alignment with the results they found for on-task behavior, Reid & Harris suggest self-monitoring has a significant impact on academic outcomes (1993). Furthermore, Reid et al. (2005) extended the research of Reid and Harris (1993), in a study that compared two self-monitoring methods and their impact on attention and academic performance (Reid et al., 2005). Specifically, the research team used both self-monitoring for attention and self-monitoring for performance to evaluate the effectiveness of each method on student on-task behavior and spelling capabilities (Reid et al., 2005). The study was conducted in an elementary school in a suburban environment of a Mid-Atlantic state with six students,

ranging from 3<sup>rd</sup> to 5<sup>th</sup> grade (Reid et al., 2005). The research team produced results that suggest self-monitoring, using either method, increases academic performance (Reid et al., 2005).

Two additional studies also evaluated the effectiveness of self-monitoring on academic performance, with each research team suggesting a positive relationship between self-monitoring and increased academic performance (Shimabukuro et al., 1999; Levendoski & Cartledge, 2000). Shimabukuro et al., measured three male students' achievement in the areas of reading comprehension, mathematics, and written expression in a self-contained private middle school (1999). The results suggest that self-monitoring has a significant impact on academic performance across all three areas of instruction, with more significant gains in mathematics and reading comprehension (Shimabukuro et al., 1999). Unlike Shimabukuro et al., (1999), Levendoski and Cartledge focused their efforts of self-monitoring and academic performance solely on mathematics (2000). The research team used a withdrawal design with four elementary school students to evaluate the relationship between self-monitoring and academic performance (Levendoski & Cartledge, 2000). Levendoski and Cartledge suggest that self-monitoring increases academic performance (2000). However, Levendoski and Cartledge (2000) caution that there was not a statistically significant increase in academic performance. Nonetheless, several studies have produced valuable results that suggest self-monitoring may greatly impact academic performance (Reid & Harris, 1993; Harris et al., 2005; Shimabukuro et al., 1999).

Although these studies provide useful results regarding self-monitoring, Shimabukuro et al. call for future research in self-monitoring with other populations, as

well as the surveying of staff and students on their satisfaction with the intervention (1999). Furthermore, Wilkerson et al. calls for further research and interventions in behavior-focused schools that are both cost-efficient and sustainable (2016).

## **Conclusion**

Students classified with behavioral disorders, according to IDEA 2004, cannot be expelled from school based on their behavior (Wilkerson et al., 2016). Additionally, students who have emotional and psychological concerns may need an alternative environment to be successful (Wilkerson et al., 2016). For the reasons of behavior and emotional stability, alternative settings can be beneficial for many students (Wilkerson et al., 2016). A component of many alternative schools is a SWPBS system, which has been shown to have a positive impact on student outcomes (Horner et al., 2009; McIntosh et al., 2013; Freeman et al., 2015). This tiered-model approach focuses on school-wide interventions with more intense interventions for other students as needed (Horner et al., 2009). The method of self-monitoring, an intervention for managing one's own performance (Bruhn et al., 2015), has been shown to be effective for increasing on-task behavior and academic performance (Reid & Harris, 1993; Harris et al., 2005; Shimabukuro et al., 1999).

This study will further the existing research by investigating the use of self-monitoring with alternative high school students, in conjunction with SWPBS. Students will evaluate and record their own behavior using the same point sheet system the teachers currently use throughout the day as part of the SWPBS. The purposes of this study are to: (a) examine the effectiveness of using self-monitoring in conjunction with SWPBS to decrease off-task behavior, (b) examine the effectiveness of using self-

monitoring in conjunction with SWPBS to increase the academic performance of students in an alternative high school, and (c) evaluate if students are pleased with self-monitoring.

## **Chapter 3**

### **Methodology**

#### **Settings and Participants**

This study included five alternative high school students, three in tenth grade, and two in twelfth grade. The population of the school ranges from 40-55 students per year. These students attend high school in a large suburban district in southern New Jersey. The district educates approximately 7000 high school students across four high schools and one alternative program. The typical school day at the alternative program lasts five hours and 50 minutes. The amount of actual instruction time is five hours and thirty-four minutes.

According to the New Jersey report card (New Jersey Department of Education, 2015), 67.5% of the student population is white, 17.5% is black, 9.0% is Asian, 4.9% is Hispanic, 0.9% is American Indian, and 0.2% is Pacific Islander. English is the primary language spoken in the surrounding community and a small percentage speak Chinese, Spanish, Korean, and Arabic. Additionally, 14% of the student population are students with disabilities, 15.4% of the students in the district are economically disadvantaged, and 0.4% of the population is comprised of limited English proficiency students.

The special education students participating in this study have a variety of classifications and attend the alternative program within the district. The reasons for their placement at the alternative high school range from behavioral, emotional, and psychological problems with the addition of a classified diagnosis of emotionally disturbed (ED), other health impaired (OHI), specific learning disability (SLD),

communication impairment (CI), and/or multiply disabled (MD). Table 1 presents the general participant information.

Table 1

*General Information of Participating Students*

<b>Participant</b>	<b>Age</b>	<b>Grade</b>	<b>Classifications</b>	<b>Other</b>
GD	16	10	Dyslexia ED ODD	Economically disadvantaged
ND	16	10	CI ODD	
DK	16	10	OHI Depression Anxiety OCD	Home-schooled prior to high school
JP	17	12	SLD ADHD ODD	Economically disadvantaged Single-mother home Attendance Issues
JM	18	12	SLD CI ADHD ODD	Economically disadvantaged Single-father home

**Participant 1.** GD is a 16 year old Caucasian female tenth grade student who is currently receiving special education services in a pull-out replacement classroom for the majority of the day with the exception of physical education and art. GD receives special education services under the classification of MD due to a SLD diagnosed as dyslexia and an emotionally disturbed diagnosis of oppositional defiance disorder (ODD). GD

struggles to follow multiple step directions and often becomes off-task when an assignment is too difficult or uninteresting. GD's lack of focus has contributed to a lack of academic success. GD comes from a single parent home and does not have any relation with her father. She is listed as economically disadvantaged and qualifies for free or reduced lunches.

**Participant 2.** ND is a 16 year old Caucasian male tenth grade student who is receiving special education services in a pull-out replacement classroom for the majority of the day with the exception of physical education and service learning. ND receives special education services under the classification of MD due to a communication impairment (CI) and an ED diagnosis of ODD. ND struggles to maintain focus during instructional time and discussions. He often does not participate or remain on-task during independent work. Due to ND's lack of focus, his academic success has been negatively affected.

**Participant 3.** DK is a 16 year old Latino male tenth grade student who is currently receiving special education services in one pull-out replacement class and the rest are general education classes. DK receives special education services under the classification of OHI due to a diagnosis of a sleep disorder, anxiety disorder, depression, and obsessive compulsive disorder (OCD). The student began his freshman year at an inpatient treatment facility and received home instruction before attending the alternative program. This year the student has suffered from bouts of depression for which he receives school counseling, as well as, outpatient services. DK's depression and anxiety causes him to lose focus of the task at hand and become off-task. These distractions have negatively impacted his performance.

**Participant 4.** JP is a 17 year old Caucasian and Black male in the twelfth grade who is currently receiving special education services in a pull-out replacement classroom for the majority of the day with the exception of physical education. JP receives special education services under the classification of MD due to a SLD, OHI, and ED. JP is classified with OHI and ED due to a diagnosis of ADHD and ODD. JP comes from a single mother home and has a fragmented relationship with his father. JP frequently expresses his desire to drop-out of school and his current attendance record shows 25 days absent with 17 unexcused days. While in school, JP often puts his head down or sleeps in class. JP's off-task behavior has negatively impacted his academic progress.

**Participant 5.** JM is an 18 year old Black male in the twelfth grade who is currently receiving special education services in a pull-out replacement classroom for the majority of the day with the exception of physical education. JM receives special education services under the classification of MD due to a classification in SLD, CI (receptive and expressive language deficits), OHI, and ED. JM is classified with OHI and ED due to a diagnosis of ADHD and ODD. JM comes from a single father home and does not have a relationship with his mother. JM struggles to remain on task during independent assignments and does not solicit help when confused. Additionally, JM does not complete larger assignments and often does not hand in assignments on time. During class discussions, JM loses focus and does not contribute to the discussion. Due to his inability to remain on-task and complete assignments, JM's grades have been negatively impacted.

## **Procedure**

The intervention was implemented over an 8 week period from February 2017 to April 2017. The special education teacher gave explicit instruction to each class participating in the study. The students followed guided practice of the intervention and were able to ask questions for clarity. All students entered and participated in the intervention at the same time.

The intervention was implemented for 40 minute class periods in a pull-out replacement classroom. During Phase A (baseline), the special education teacher collected baseline data of on-task behavior and academic performance for one week. During this phase, students participated in a variety of learning activities that included teacher led discussions, independent assignments, and guided reading and note-taking. During the traditional lessons in the classroom, the special education teacher collected baseline data using 5 minute intervals and a time system recording sheet to record on-task behavior of the students participating in the study. At the end of each period, the special education teacher completed an academic performance sheet for each student to determine if they completed the academic learning activity in the class period. Additionally, students received behavior feedback on their program wide behavior point sheet.

During Phase B (intervention), students were given a self-monitoring interval card and used this card to record their on-task behavior for three weeks. The special education teacher used an alarm set at five minute intervals to indicate to the students when to record their on-task behavior. Each class period contained 8 data points to record in a 40 minute class period. At the end of the class period, each student used their academic

performance self-monitoring sheet to record the number of questions or learning activities completed. The special education teacher also completed each student's behavior point sheet to provide feedback to each individual student. During the second Phase A, students stopped self-monitoring for one week and the special education teacher continued collecting data using the same time system recording sheet every 5 minutes as the first Phase A. The second Phase A lasted one week.

In the second Phase B, students began self-monitoring their on-task behavior and academic performance again using the same methods as the first Phase B. The second Phase B lasted three weeks.

After the study was complete, the participants took a Likert scale survey. Results are reported in Chapter 4.

In the survey, students described their experience with self-monitoring. They rated their overall satisfaction with self-monitoring and how impactful the intervention was on their behavior and academic progress. Additionally, students identified whether they would use self-monitoring again. See Figure 1.

<i>For each item below, circle what best describes your experience.</i>					
<i>5 = Strongly agree    4 = Somewhat agree    3 = Not sure    2 = Somewhat disagree</i>					
<i>1 = Strongly disagree</i>					
<i>Self-monitoring helped me stay on-task during class.</i>	<i>5</i>	<i>4</i>	<i>3</i>	<i>2</i>	<i>1</i>
<i>Self-monitoring helped me complete my assignments.</i>	<i>5</i>	<i>4</i>	<i>3</i>	<i>2</i>	<i>1</i>
<i>Self-monitoring was difficult and time consuming.</i>	<i>5</i>	<i>4</i>	<i>3</i>	<i>2</i>	<i>1</i>
<i>I would use self-monitoring again.</i>	<i>5</i>	<i>4</i>	<i>3</i>	<i>2</i>	<i>1</i>
<i>I am able to better monitor my own behavior and performance.</i>	<i>5</i>	<i>4</i>	<i>3</i>	<i>2</i>	<i>1</i>

Figure 1. Student Satisfaction Survey

### Variables

The independent variable in the study was the intervention of self-monitoring. Students utilized writing utensils, tables, and recording sheets to record their on-task behavior and academic performance.

The dependent variables in the study were the student’s on-task behavior and academic performance.

### Experimental Design

The study used a single subject ABAB design over an eight week period. Phase A consisted of baseline data in which the special education teacher collected data of on-task behavior using 5 minute intervals during traditional learning activities. Phase B consisted of students self-monitoring their on-task behavior every 5 minutes during traditional learning activities and their academic performance at the end of each class period. The

second Phase A consisted of the intervention being removed and the same data collection process took place as in the first Phase A. The second Phase B consisted of the intervention being reintroduced and the students began self-monitoring again. They recorded on-task behavior every 5 minutes and academic performance at the end of each class period.

### **Data Analysis**

Results were interpreted using and reviewing student and researcher self-monitoring sheets, behavior point sheets, and academic performance on learning tasks. The results of the study were graphed and analyzed visually to identify trends and patterns. Additionally, this data was used to determine the overall effectiveness of self-monitoring to improve on-task behavior and academic performance.

## **Chapter 4**

### **Results**

This study utilized single subject design to examine the effects of using self-monitoring, in conjunction with SWPBS, to increase the on-task behavior and academic performance of five alternative high school students with special needs. The research questions to be answered were:

1. Does the use of self-monitoring, in conjunction with SWPBS, increase the on-task behavior of students attending an alternative high school?
2. Does the use of self-monitoring, in conjunction with SWPBS, increase the academic performance of students attending an alternative high school?
3. Are students attending an alternative high school satisfied with the use of self-monitoring in conjunction with SWPBS?

### **Group Results**

Table 2 shows the results for on-task behavior and Table 3 shows the results for performance on academic tasks for each of the five participants. Individual and group means are reported. The baseline data for on-task performance was taken during 40 minute periods, using 5 minute intervals over one week. All five students participated in guided reading, guided notes, small individual assignments, and activator/summarizer learning activities throughout the study. Each of the 5 students' academic performance was evaluated at the end of each period by the number of learning activities completed and/or how well they performed on the learning task (number of correct responses). During the three week intervention phases, the students continued to participate in the same learning activities as they did during the baseline phases, but students recorded and

evaluated their on-task performance and academic performance. A mean was calculated for on-task performance and academic performance for baseline phases.

Table 2

*On-Task Performance %*

Participant	<i>Baseline (1A)</i>	<i>Intervention (1B)</i>	<i>Baseline (2A)</i>	<i>Intervention (2B)</i>	Difference between Baseline 1 and Intervention 2
	Week 1	Weeks 2-4	Week 5	Weeks 6-8	
ND	50.00	75.14	60.20	80.21	30.21
GD	59.50	86.86	73.40	83.31	23.81
DK	71.75	88.71	68.80	87.14	15.39
JP	31.50	66.50	53.60	75.54	44.04
JM	46.00	76.21	65.20	79.08	33.08
Mean	51.75	78.69	64.24	81.06	29.31

Table 3

*Performance on Academic Task %*

Participant	<i>Baseline (1A)</i>	<i>Intervention (1B)</i>	<i>Baseline (2A)</i>	<i>Intervention (2B)</i>	Difference between Baseline 1 and Intervention 2
	Week 1	Weeks 2-4	Week 5	Weeks 6-8	
ND	76.50	85.36	66.80	84.07	7.57
GD	84.75	92.71	77.60	89.85	5.10
DK	82.50	87.21	79.20	88.50	6.00
JP	46.25	75.20	68.80	82.00	35.75
JM	62.00	80.64	75.80	85.69	23.69
Mean	70.40	84.23	73.64	86.02	15.62

In terms of on-task performance, group results show a baseline 1 mean of 51.75% on task and an intervention phase 1 mean of 78.69% on-task during a 40 minute class period. In examining academic performance, group results show a baseline of 70.4% and intervention phase 1 mean score of 84.23% for academic performance. All five participants increased their on-task and academic performance from baseline 1 to intervention 2. The overall group mean percentage increase from baseline to intervention was 29.31% for on-task performance and 15.62% for academic performance.

**Individual Results**

Figure 2 illustrates the results for ND for on-task performance across all four phases. During baseline 1, ND was on-task 50% of the class period. During intervention

1, ND's mean on-task performance increased to 75.14%. During baseline 2, ND was on-task 60.2% of the time. During intervention 2, ND's mean on-task performance increased to 80.21%. From baseline 1 to intervention 2 on-task performance increased 30.21%.

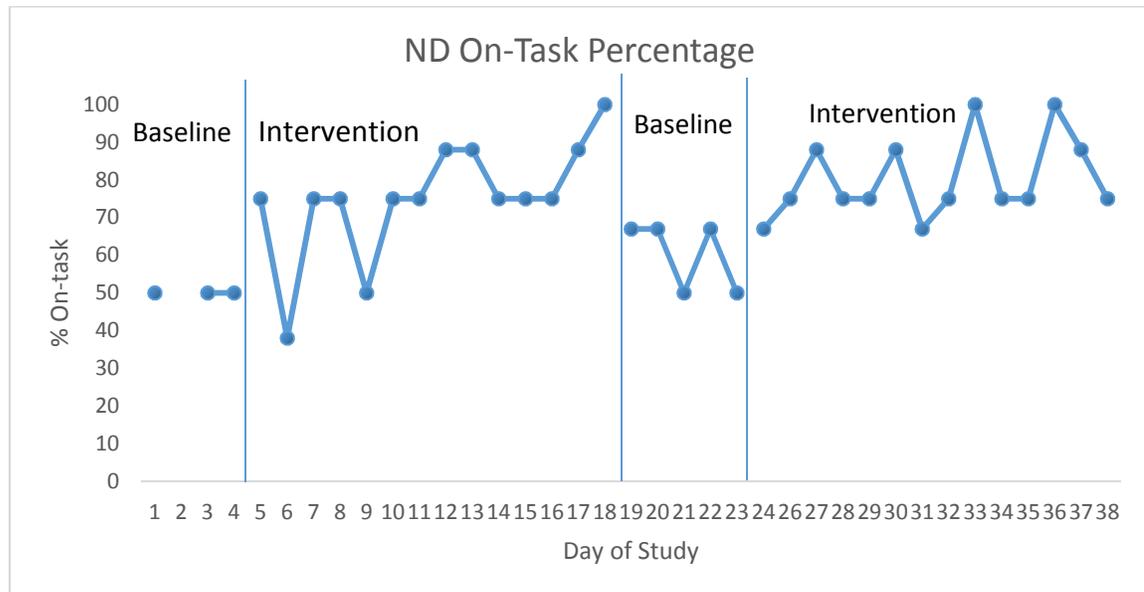


Figure 2. ND On-Task Percentage

Figure 3 illustrates the results for ND for performance on academic tasks across all four phases. During baseline 1, ND scored 76.5% on academic tasks. During intervention 1, ND's mean score increased to 85.36% on academic tasks. During baseline 2, ND scored 66.8% on academic tasks. During intervention 2, ND's score increased to 84.07% on academic tasks. From baseline 1 to intervention 2, academic performance increased 7.57%.

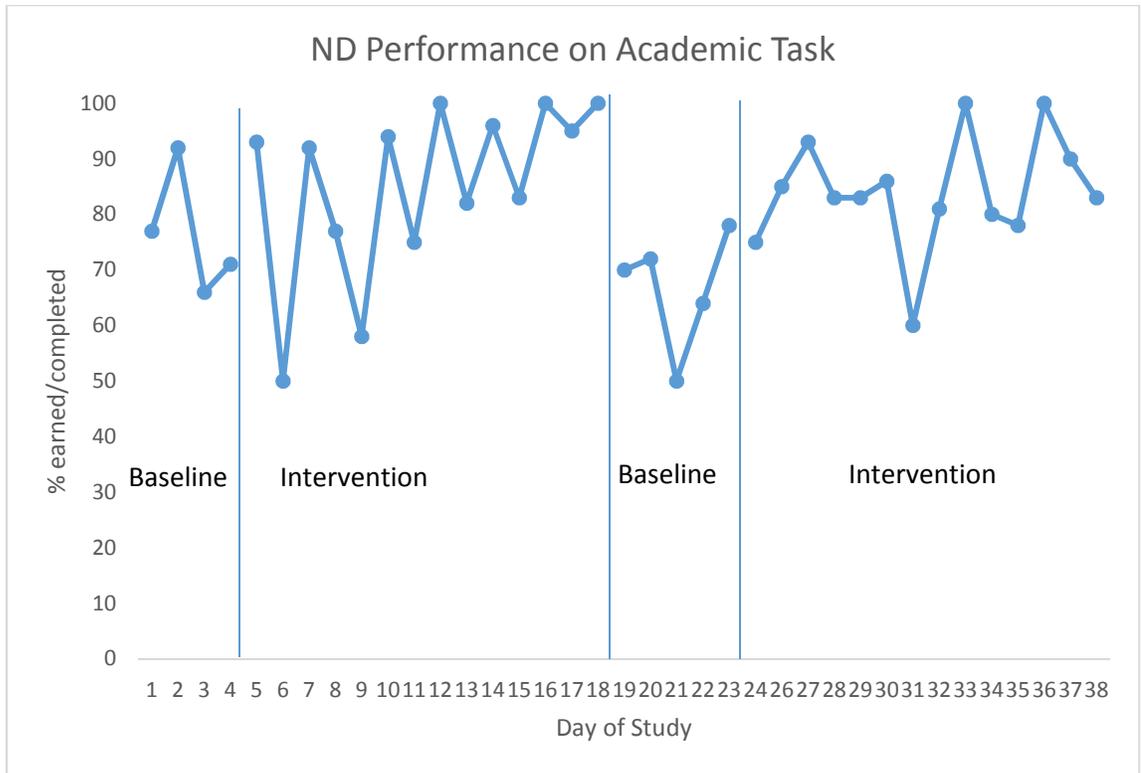


Figure 3. ND Performance on Academic Tasks

Figure 4 illustrates the results for GD for on-task performance across all four phases. During baseline 1, GD was on-task 59.5% of the class period. During intervention 1, GD's mean on-task performance increased to 86.86%. During baseline 2, GD was on-task 73.4% of the time. During intervention 2, GD's mean on-task performance increased 83.31% of the time. From baseline 1 to intervention 2 on-task performance increased 23.81%.

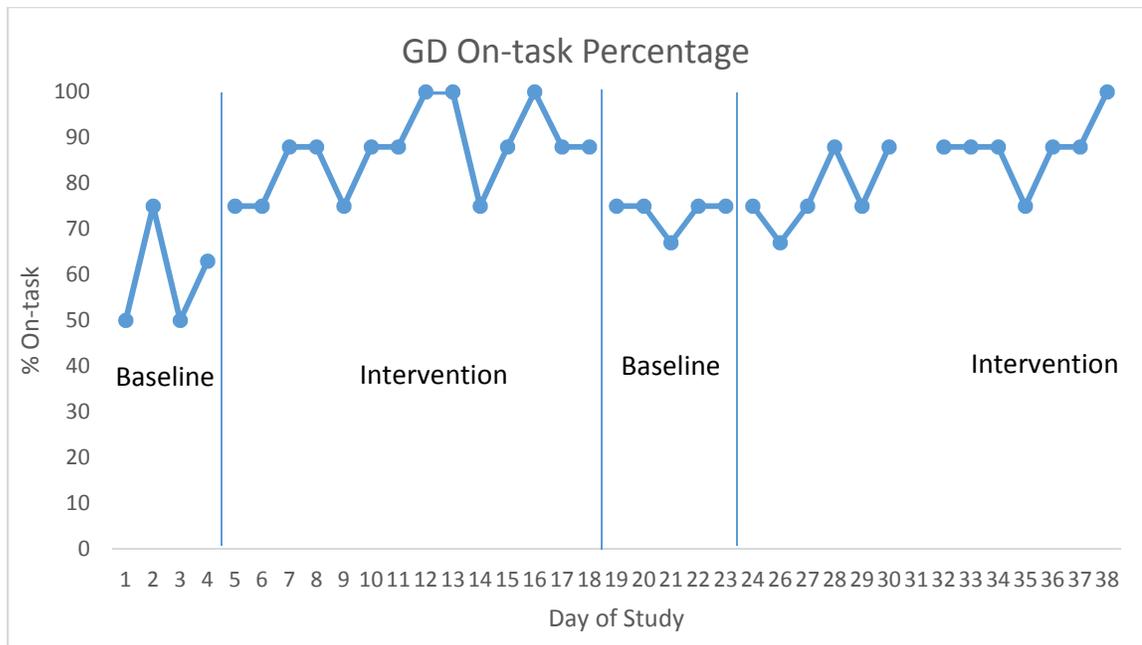


Figure 4. GD On-Task Performance

Figure 5 illustrates the results for GD for performance on academic tasks across all four phases. During baseline 1, GD scored 84.75% on academic tasks. During intervention 1, GD’s mean score increased to 92.71% on academic tasks. During baseline 2, GD scored 77.6% on academic tasks. During intervention 2, GD’s score increased to 89.95% on academic tasks. From baseline 1 to intervention 2, academic performance increased 5.1%.

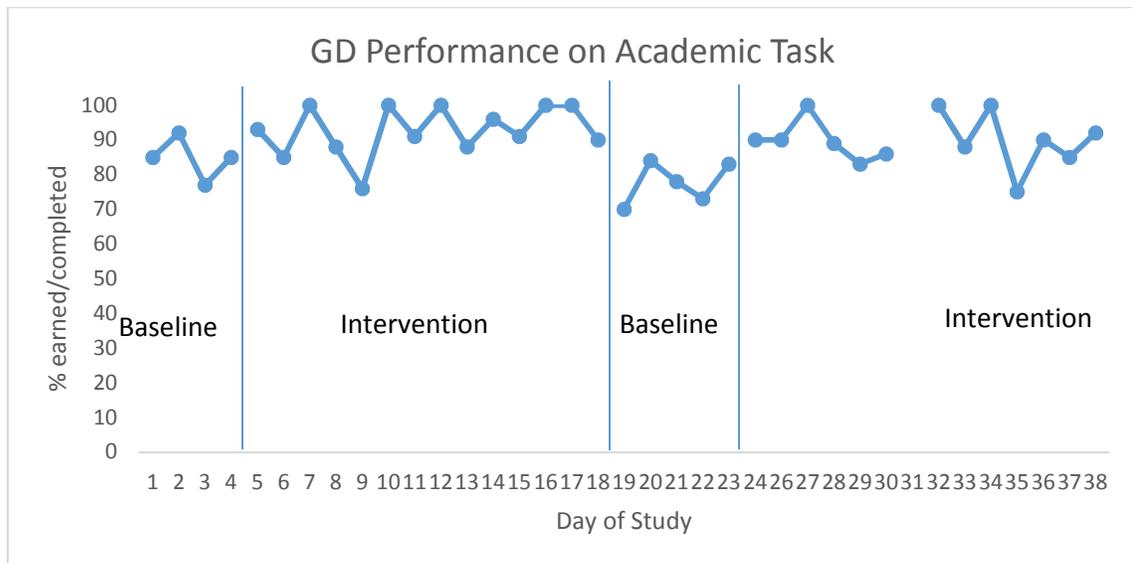


Figure 5. GD Performance on Academic Tasks

Figure 6 illustrates the results for DK for on-task performance across all four phases. During baseline 1, DK was on-task 71.75% of the class period. During intervention 1, DK's mean on-task performance increased to 88.71%. During baseline 2, DK was on-task 68.8% of the time. During intervention 2, DK's mean on-task performance increased 87.14% of the time. From baseline 1 to intervention 2 on-task performance increased 15.39%.

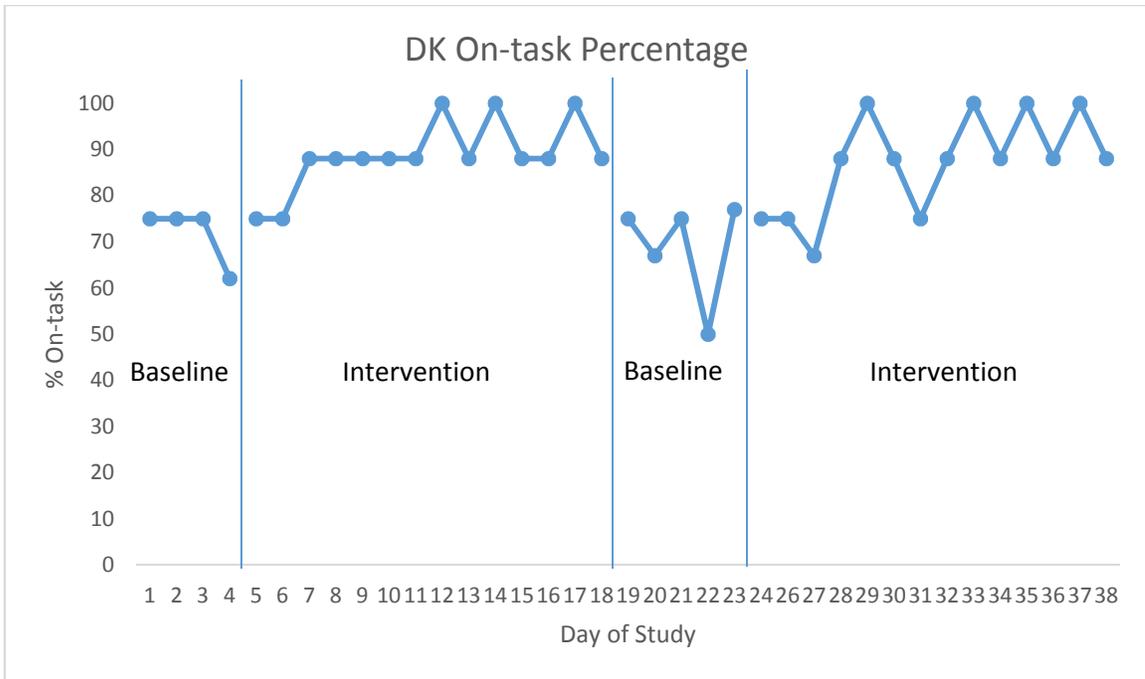


Figure 6. DK On-Task Percentage

Figure 7 illustrates the results for DK for performance on academic tasks across all four phases. During baseline 1, DK scored 82.5% on academic tasks. During intervention 1, DK's mean score increased to 87.21% on academic tasks. During baseline 2, DK scored 79.2% on academic tasks. During intervention 2, DK's score increased to 88.5% on academic tasks. From baseline 1 to intervention 2, academic performance increased 6%.

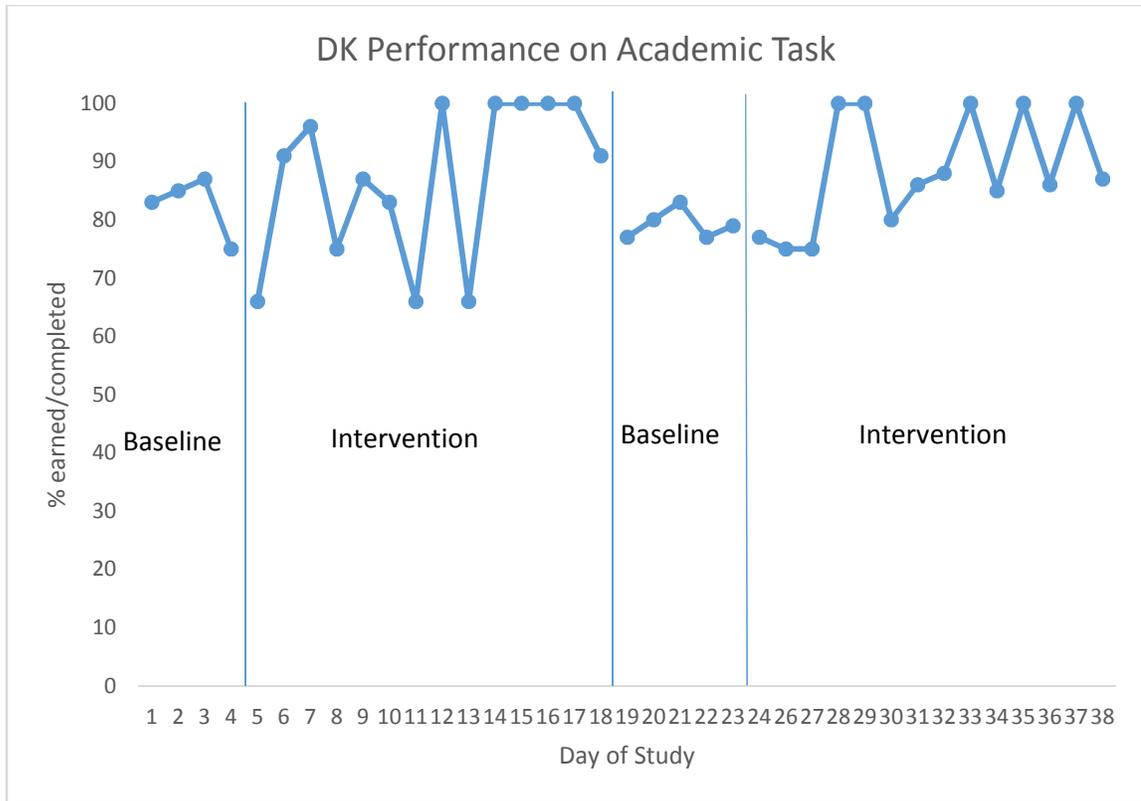


Figure 7. DK Performance on Academic Tasks

Figure 8 illustrates the results for JP for on-task performance across all four phases. During baseline 1, JP was on-task 31.5% of the class period. During intervention 1, JP’s mean on-task performance increased to 66.5%. During baseline 2, JP was on-task 53.6% of the time. During intervention 2, JP’s mean on-task performance increased to 75.54% of the time. From baseline 1 to intervention 2 on-task performance increased 44.04%.

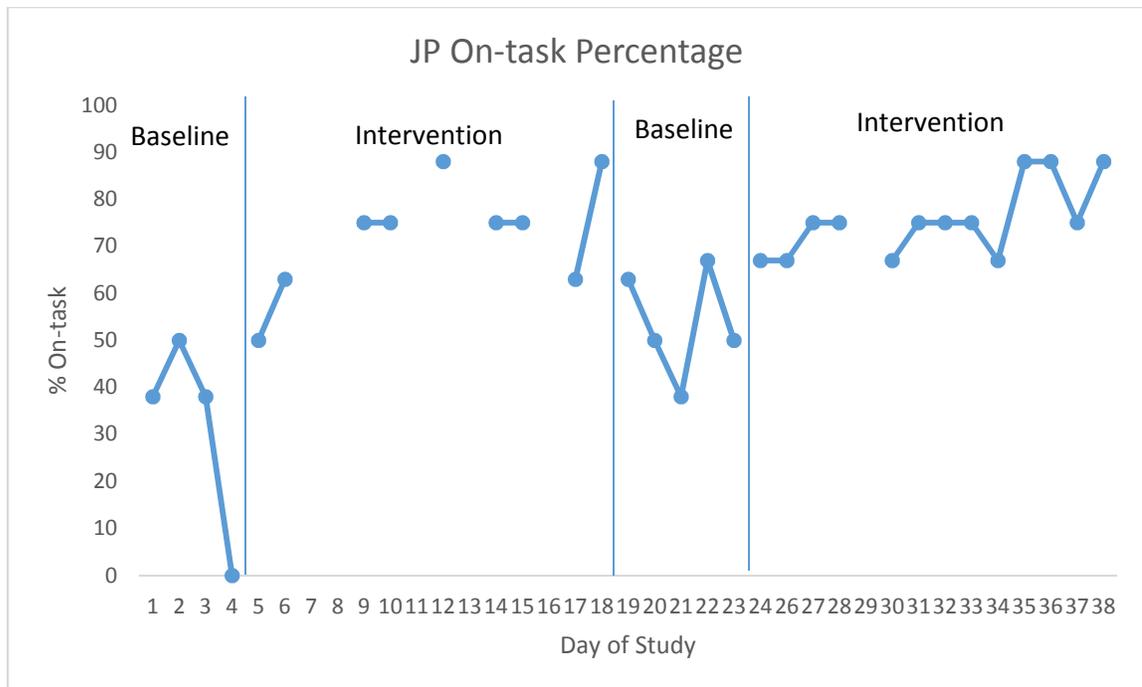


Figure 8. JP On-Task Percentage

Figure 9 illustrates the results for JP for performance on academic tasks across all four phases. During baseline 1, JP scored 46.25% on academic tasks. During intervention 1, JP's mean score increased to 75.2% on academic tasks. During baseline 2, JP scored 68.8% on academic tasks. During intervention 2, JP's score increased to 82% on academic tasks. From baseline 1 to intervention 2, academic performance increased 35.75%.

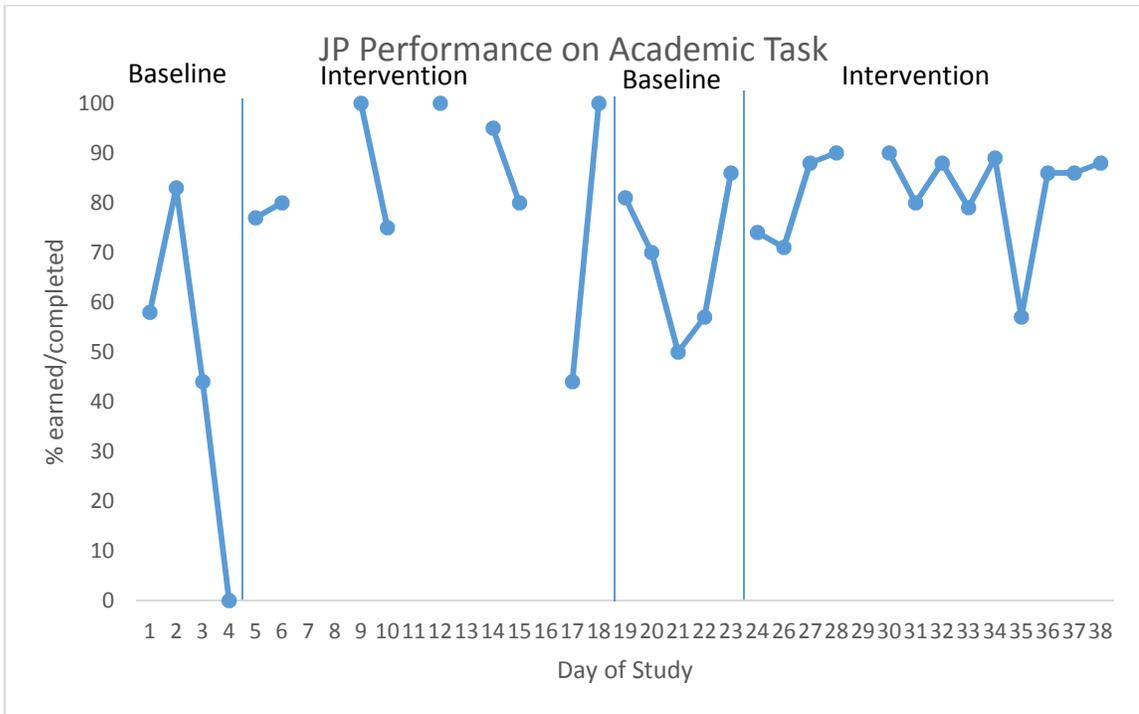


Figure 9. JP Performance on Academic Tasks

Figure 10 illustrates the results for JM for on-task performance across all four phases. During baseline 1, JM was on-task 46% of the class period. During intervention 1, JM's mean on-task performance increased to 76.21%. During baseline 2, JM was on-task 65.2% of the time. During intervention 2, JM's mean on-task performance increased to 79.08% of the time. From baseline 1 to intervention 2 on-task performance increased 33.08%.

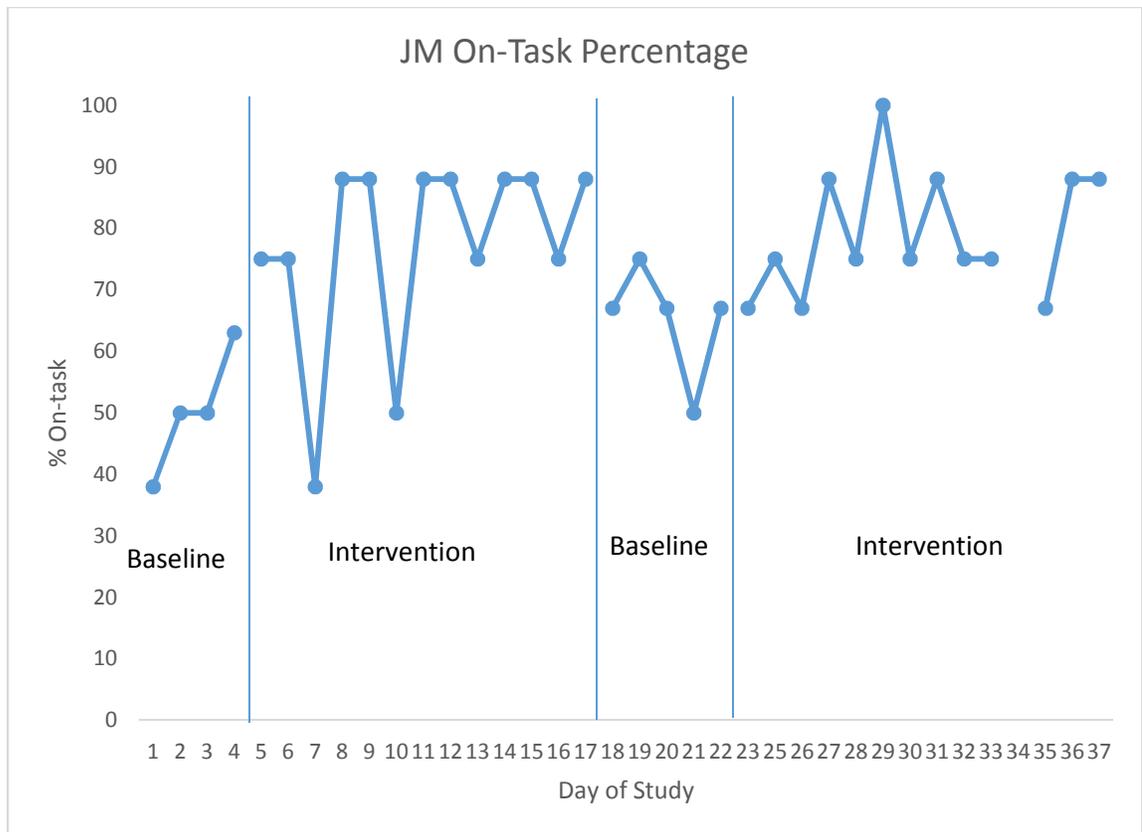


Figure 10. JM On-Task Percentage

Figure 11 illustrates the results for JM for performance on academic tasks across all four phases. During baseline 1, JM scored 62% on academic tasks. During intervention 1, JM's mean score increased to 80.64% on academic tasks. During baseline 2, JM scored 75.8% on academic tasks. During intervention 2, JM's score increased to 85.69% on academic tasks. From baseline 1 to intervention 2, academic performance increased 23.69%.

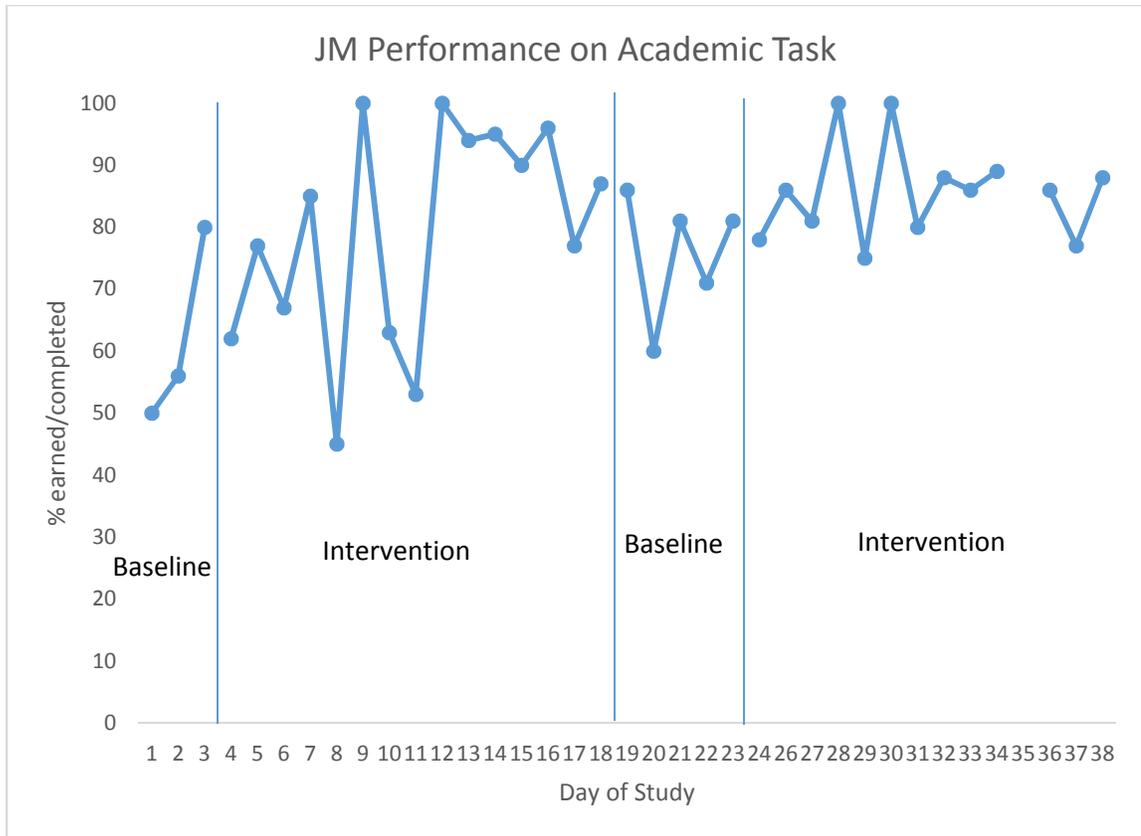


Figure 11. JM Performance on Academic Tasks

### Survey Results

Students completed a Likert scale type survey at the end of the study to indicate satisfaction with the intervention. Answers were totaled and calculated in means. The statements were rated on a scale of 5 through 1, with 5 representing “strongly agree” to 1 “strongly disagree,” And numbers 4, 3, and 2 representing “somewhat agree, not sure, and somewhat disagree” respectively. Table 4 displays the results of the student survey.

Table 4

*Student Satisfaction Scores*

Statement	Strongly Agree %	Agree %	Not Sure%	Disagree %	Strongly Disagree %	Mean Score
1. Self-monitoring helped me stay on-task during class.	60	20	20	0	0	4.4
2. Self-monitoring helped me complete my assignments.	0	60	40	0	0	3.6
3. Self-monitoring was difficult and time consuming.	0	20	60	20	0	3
4. I would use self-monitoring again.	0	40	20	40	0	3
5. I am able to better monitor my own behavior and performance.	0	40	40	20	0	3.2

*Note.* Mean score out of 5 possible points.

Five students participated in the survey at the conclusion of the study. The group was most agreeable to the first statement, with 4 out of 5 students strongly agreeing or agreeing that “self-monitoring helped them stay on task,” (M= 4.4). The second statement ranks second in agreement with 3 out of 5 students stating they somewhat agree “self-monitoring helped me complete my assignments.” No students disagreed with the statement. Three students were unsure if “self-monitoring was difficult and time consuming” while the two other students somewhat agreed and disagreed with the statement. Two out of five students indicated they “would use self-monitoring again” while two students said they would not. One student was unsure if they would use it

again. Two students report they are better able to monitor their own behavior and performance, while two other students disagreed with the statement. One student was unsure whether he is able to better monitor his own behavior and performance.

## **Chapter 5**

### **Discussion**

The purpose of this study was to examine the effectiveness of using self-monitoring, in conjunction with SWPBS, to increase the on-task behavior and academic performance of alternative high school students with varying disabilities.

#### **Findings**

The results of the study revealed all students increased their on-task behavior from baseline to intervention. For example, JM increased his on-task behavior by 33% from baseline to intervention. ND was another student who made notable gains for on-task behavior, increasing on-task behavior by 30%. JP was inconsistent from day to day, but overall showed improvement in his on-task behavior. DK showed the smallest increase for on-task behavior from baseline to intervention. The small increase may be explained by his high on-task performance during baseline and his withdrawn, unmotivated personality. The results of this study corroborate with prior researchers Reid and Harris (1993) and Graham-Day et al. (2010) in that results suggest self-monitoring does have a positive relationship with on-task behavior.

The results, although not as strong as on-task behavior, showed all students increased their academic performance from baseline to intervention. JM and JP showed the most significant gains in academic performance throughout the study. These gains may be explained by their low performance during baseline. Similar to on-task performance, JP's academic performance varied from day to day, but he showed improvements from baseline to intervention. ND, GD, and DK all showed gains in academic performance, however these students performed well during the baseline and

slightly improved their performance during intervention. The results of this study support the findings of previous research that have suggested self-monitoring does increase academic performance (Reid & Harris 1993; Shimabukuro et al., 1999; Levendoski & Cartledge, 2000; Reid et al. 2005).

In terms of student satisfaction, the survey revealed that most students felt self-monitoring helped them remain on-task. Only some of the student felt that it helped them complete their assignments. Some students may not have made the connection that the more on-task they are, the more likely they will be to complete an assignment. Students were unsure if self-monitoring was difficult and time consuming. Students were also unsure if they would use self-monitoring again. Additionally, students were somewhat in between on whether they thought self-monitoring helped them better monitor their own behavior and performance. However, students slightly indicated that self-monitoring helped them better monitor their own behavior and performance. These results differ from prior research (Levendoski & Cartledge 2000; Graham-day et al. 2010; Wills & Mason 2014; Bruhn et al. 2015; Bruhn et al. 2016) where students were generally pleased with self-monitoring as an intervention. However, in one study (Graham-day et al. 2010) two students did express they “thought the self-monitoring technique was distracting and it made it harder for me to concentrate” (214).

### **Limitations**

This study had several possible limitations. One limitation may have been the varying student population and small sample size of 5 participants. Each of these participants was attending the alternative high school for a different reason. Additionally, the study had a sample size of only five students. The results of this study should not be

generalized on a larger scale, and the findings should only be used to support conclusions about the specific population in this study. Future research may include a larger sample size across multiple classrooms in an alternative setting.

Another limitation was the time constraints of the study. This study was master's thesis conducted during the spring semester. Due to deadlines and university approval, the study included two, one week baselines and no time for a maintenance phase. According to Bruhn and colleagues (2015), students should be "striving to reach independence with the strategy and maintain positive outcomes" (102). Therefore, future research should include a longer baseline period to ensure consistent collection of baseline data and a maintenance phase to increase validity.

Throughout the study students participated in a variety of learning activities that differed from day to day. Due to the inconsistency of activities, it may be difficult to determine if the intervention caused increases for on-task behavior and academic performance or if the learning activity was more engaging. Future research may focus on a more structured classroom routine or follow the procedure of Wills and Mason (2014), and have "instructional activity serve as the guide to the number of data collection sessions" (427). Another recommendation is to collect data on the types of learning activities that engage the students.

Based on the results of the student satisfaction survey, students were not overwhelmingly satisfied with the self-monitoring intervention. Future research may follow a similar design as Wills and Mason (2014), Bruhn and colleagues (2015), and Bruhn et al. (2016) and introduce self-monitoring with the addition of technology, such as a smartphone or tablet application to increase student satisfaction.

One final limitation of the study was the occurrence of student absences. At times, students were absent from school and/or class led to some inconsistencies in data collection and a lack of data points during the baseline and intervention phases.

### **Implications and Recommendations**

Implications for practice include the need for teachers to have an understanding of self-monitoring as an effective method to increase on-task behavior and academic performance. Teachers should be trained on implementing self-monitoring and should consider this intervention in both traditional and alternative settings. Moreover, teachers in alternative settings that already use SWPBS should understand that additional interventions, such as self-monitoring, can lead to increased positive outcomes.

Unlike previous studies that focused on students with the same or similar disabilities (Reid and Harris 1993; Shimbukuro et al.1999; Levendoski and Cartledge 2000; Harris et al. 2005; Graham-Day et al 2010), this study incorporated students of varying levels of performance with a variety of disabilities. Therefore, the results may have differed if the students all had the same classification. Future research should include alternative high school students with the same classifications.

Although the study had its limitations, the data suggests that the use of self-monitoring, in conjunction with SWPBS, was an effective intervention to increase the on-task behavior and academic performance of alternative high school students with varying disabilities. Prior studies yielded stronger results to support self-monitoring (Reid & Harris 1993; Shimbukuro et al.1999; Levendoski & Cartledge 2000; Harris et al. 2005; Graham-Day et al 2010; Wills & Mason; Bruhn 2016).These stronger results may be due to less diversity, more rigor, and the use of technology. It is recommended that more

research be conducted with the use of self-monitoring in additional alternative high school settings, with more structured classroom routines, and with less diversity in student disabilities. Furthermore, as recommended by prior researchers Bruhn et al. (2015), Graham-day et al. (2010), and Levendoski and Cartledge (2000), it is suggested that future research conduct studies with more high school students, analyze self-monitoring with difficulty of assignments, and conduct studies over longer periods of time.

### **Conclusion**

The study was successful in that it revealed increases in on-task behavior among alternative high school students with disabilities. Further research is needed to validate the results of the study. Perhaps the use of technology, more time, and a more structured classroom routine may yield stronger results for self-monitoring increasing the on-task behavior and academic performance of alternative high school students with disabilities.

## References

- Ahmad, I., Brodsky, H., Crofts, M. S., & Ellis, E. G. (2004). *World Cultures: A Global Mosaic*. Upper Saddle River: Pearson Prentice Hall.
- Bruhn, A. L., Vogelgesang, K., Fernando, J., & Lugo, W. (2016). Using data to individualize a multicomponent, technology-based self-monitoring intervention. *Journal of Special Education Technology, 31*(2), 64-76.  
doi:10.1177/0162643416650024
- Bruhn, A. L., Vogelgesang, K., Schabillion, K., Waller, L., & Fernando, J. (2015). "I Don't Like Being Good!" Changing behavior with technology-based self-monitoring. *Journal of Special Education Technology, 30*(3), 133-144.  
doi:10.1177/0162643415618911
- Bruhn, A., McDaniel, S., & Kreigh, C. (2015). Self-monitoring interventions for students with behavior problems: A systematic review of current research. *Behavioral Disorders, 40*(2), 102-121.
- Coyle, D. D., Jone, R. M., & Dick, A. J. (2004). The influence of peer status and peer relationships on school-related behaviors, attitudes, and intentions among alternative high school students. *American Secondary Education, 32*(2), 39-62.
- Fallon, L. M., O'Keefe, B. V., Gage, N. A., & Sugai, G. (2015). Brief report: Assessing attitudes towards culturally and contextually relevant school-wide positive behavior support strategies. *Behavioral Disorders, 40*(4), 251-260.
- Flannery, B. K., Frank, J. L., Kato, M. M., Doren, B., & Fenning, P. (2013). Implementing positive behavior supports in high school settings: Analysis of eight high schools. *The High School Journal, 267-282*.
- Freeman, J., Simonsen, B., McCoach, D. B., Sugai, G., Lombardi, A., & Horner, R. (2015). An analysis of the relationship between implementation of school-wide positive behavior interventions and supports and high school dropout rates. *The High School Journal, 98*(4), 290-315.
- Freeman, J., Simonsen, B., McCoach, D. B., Sugai, G., Lombardi, A., & Horner, R. (2016). Relationship between school-wide positive behavior interventions and supports and academic, attendance, and behavior outcomes in high schools. *Journal of Positive Behavior Interventions, 18*(1), 41-51.  
doi:10.1177/1098300715580992
- Graham-Day, K. J., Gardner III, R., & Hsin, T.-W. (2010). Increasing on-task behaviors of high school students with attention deficit hyperactivity disorder: Is it enough? *Education and Treatment of Children, 33*(3), 205-221.

- Harris, K. R., Friedlander, B. D., Saddler, B., Frizzelle, R., & Graham, S. (2005). Self-monitoring of attention versus self-monitoring of academic performance: Effects among students with ADHD in the general education classroom. *The Journal of Special Education, 39*(3), 145-156.
- Horner, R. H., Sugai, G., & Anderson, C. M. (2010). Examining the evidence base for school-wide positive behavior support. *Focus on Exceptional Children, 42*(8), 1-14.
- Horner, R. H., Sugai, G., Smolkowski, K., Eber, L., Nakasato, J., Todd, A. W., & Esperanza, J. (2009). A randomized, wait-list controlled effectiveness trial assessing school-wide positive behavior support in elementary schools. *Journal of Positive Behavior Interventions, 11*(3), 133-144. doi:10.177/1098300709332067
- Kennedy, C. H., Long, T., Jolivet, K., Cox, J., Tang, J.-c., & Thompson, T. (2001). Facilitating general education participation for students with behavior problems by linking positive behavior supports and person-centered planning. *Journal of Emotional and Behavioral Disorders, 9*(3), 161-171.
- Kurth, J., & Enyart, M. (2016). Schoolwide positive behavior supports and students with significant disabilities: Where are we? *Research and Practice for Persons with Severe Disabilities, 41*(3), 216-222. doi:10.177/1540796916633083
- Levendoski, L. S., & Cartledge, G. (2000). Self-monitoring for elementary school children with serious emotional disturbances: Classroom applications for increased academic responding. *Behavioral Disorders, 25*(3), 211-224.
- McIntosh, K., Mercer, S. H., Hume, A. E., Frank, J. L., Turri, M. G., & Matthews, S. (2013). Factors related to sustained implementation of schoolwide positive behavior support. *Exceptional children, 79*(3), 293-311.
- Medley, N. S., Little, S. G., & Akin-Little, A. (2008). Comparing individual behavior plans from schools with and without schoolwide positive behavior support: A preliminary study. *Journal of Behavior Education, 17*, 93-110. doi:10.1007/s10864-007-9053-y
- Rafferty, L. A. (2010). Step-by step: Teaching students to self-monitor. *Teaching Exceptional children, 43*(2), 50-58.
- Reid, R., & Harris, K. R. (1993). Self-monitoring of attention versus self-monitoring of performance: Effects on attention and academic performance. *Exceptional Children, 60*(1), 29-40.
- Saunders, J. A., & Saunders, E. J. (2001). Alternative school students' perceptions of past [traditional] and current [alternative] school environments. *The High School Journal, 85*(2), 12-23.

- Shimabukuro, S. M., Prater, M. A., Jenkins, A., & Eden-Smith, P. (1999). The effects of self-monitoring of academic performance on students with learning disabilities and ADD/ADHD. *Education and Treatment of Children, 22*(4), 397-414.
- Shogren, K. A., Gross, J. M., Forber-Pratt, A. J., Francis, G. L., Satter, A. L., Blue-Banning, M., & Hill, C. (2015). The perspectives of students with and without disabilities on inclusive schools. *Research and Practice for Persons with Severe Disabilities, 40*(4), 243-260. doi:10.1177/1540796915583493
- Sugai, G., & Horner, R. R. (2006). A promising approach for expanding and sustaining school-wide positive behavior support. *School Psychology Review, 35*(2), 245-259.
- Swain-Bradway, J., Pinkey, C., & Flannery, K. B. (2015). Implementing schoolwide positive behavior interventions and supports in high schools. *Teaching Exceptional Children, 47*(5), 245-255. doi:10.177/0040059915580030
- Wilkerson, K., Afacan, K., Perzigian, A., Justin, W., & Lequia, J. (2016). Behavior-focused alternative schools: Impact on student outcomes. *Behavioral Disorders, 41*(2), 81-94.
- Wills, H. P., & Mason, B. A. (2014). Implementation of a self-monitoring application to improve on-task behavior: A high-school pilot study. *Journal of Behavior Education, 23*, 421-434. doi:10.1007/s10864-014-9204-x

# Appendix A

## Behavior Point Sheet

Individual Goal		Week #	Student Name:		Mentor Name:		
<b>Expected Behaviors</b> 1. Be on time to class. 2. Be respectful to others. 3. Use appropriate language. 4. Follow all classroom rules. 5. Respect the property of others. 6. Behave appropriately in hallways. 7. Be prepared for class. 8. Remain engaged and on-task. 9. Responsible use of electronic devices. 10. Complete all assignments.		Schedule	Monday	Tuesday	Wednesday	Thursday	Friday
		Date:	Date:	Date:	Date:	Date:	
<b>Weekly Point Goal</b> (Must maintain $\geq$ 80% of weekly points)		AM Homeroom	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
4 Periods (45 possible points)		Period 1	6 7 8 9 10	6 7 8 9 10	6 7 8 9 10	6 7 8 9 10	6 7 8 9 10
6 Periods (65 possible points)		Period 2	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
8 Periods (80 possible points)		Period 3	6 7 8 9 10	6 7 8 9 10	6 7 8 9 10	6 7 8 9 10	6 7 8 9 10
400 out of 500		Period 4	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
		Period 5	6 7 8 9 10	6 7 8 9 10	6 7 8 9 10	6 7 8 9 10	6 7 8 9 10
		Period 6	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
		Period 7	6 7 8 9 10	6 7 8 9 10	6 7 8 9 10	6 7 8 9 10	6 7 8 9 10
		Period 8	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
		PM Homeroom	6 7 8 9 10	6 7 8 9 10	6 7 8 9 10	6 7 8 9 10	6 7 8 9 10
		Total Points	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
<b>Example Above and Beyond Behaviors</b>		<b>Level One: White Point Sheet</b>					
1. Demonstrating leadership. 2. Assisting others. 3. Using the cell phone caddy. 4. Perfect attendance for the week. 5. Perfect score on test/quiz.		1. Must report directly to homeroom. 2. May not leave homeroom but can order breakfast. 3. May not attend any trips. 4. May not attend any events at their home school. 5. Must report directly to Enrichment after lunch. 6. May not participate in any incentive/rewards programs at Sequoia. 7. May not participate in any special events at Sequoia.					
<b>Above/Beyond</b>							
<b>Weekly Points Total</b>							
<b>Accumulated Points</b>							

## Appendix B

### Time Sampling System Recording and Academic Performance Self-Monitoring Sheet

<u>Interval</u>	<u>On-Task</u> (+ or -)
1	
2	
3	
4	
5	
6	
7	
8	

<u>Name:</u>		<u>Date:</u>
<u>Assignment</u>	<u>Completed</u> (Yes or No)	<u># of questions completed/grade</u>
<u>1.</u>		
<u>2.</u>		
<u>3.</u>		
<u>4.</u>		
<u>Percent of completed assignments</u>		

## Appendix C

### Likert Scale Self-Monitoring Survey

*For each item below, circle what best describes your experience.*

*5 = Strongly agree    4 = Somewhat agree    3 = Not sure    2 = Somewhat disagree  
1 = Strongly disagree*

<i>Self-monitoring helped me stay on-task during class. 1</i>	<i>5</i>	<i>4</i>	<i>3</i>	<i>2</i>
<i>Self-monitoring helped me complete my assignments. 1</i>	<i>5</i>	<i>4</i>	<i>3</i>	<i>2</i>
<i>Self-monitoring was difficult and time consuming. 1</i>	<i>5</i>	<i>4</i>	<i>3</i>	<i>2</i>
<i>I would use self-monitoring again. 1</i>	<i>5</i>	<i>4</i>	<i>3</i>	<i>2</i>
<i>I am able to better monitor my own behavior and 1 performance.</i>	<i>5</i>	<i>4</i>	<i>3</i>	<i>2</i>