

SELF- AND PEER-MODELING COMBINED WITH SELF-MONITORING
TO INCREASE RATES OF ON-TASK BEHAVIOR

by

Brian Scott King

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STATEMENT OF THESIS APPROVAL

Brian Scott King

The thesis of _____

has been approved by the following supervisory committee members:

William R. Jenson _____	, Chair	2/16/12 _____ Date Approved
Daniel E. Olympia _____	, Member	2/16/12 _____ Date Approved
Robert E. O'Neill _____	, Member	2/16/12 _____ Date Approved

Elaine Clark

and by _____, Chair of
the Department of **Educational Psychology**

and by Charles A. Wight, Dean of The Graduate School.

ABSTRACT

This study investigated the effectiveness of using self-as-a-model and peer-modeling techniques in a package with self-monitoring to increase on-task behavior during independent seatwork time in math. The intervention package included self and peer-modeling videos, a self-monitoring training video, coaching statements for use during each video session, a tactile self-monitoring prompt, and a self-monitoring grid. Three male students and one female student in the second and third grades indentified as displaying high rates of off-task behavior by their classroom teacher were included in the study. Two of the participants received their math instruction in a special education classroom. A multiple-probe, multiple-baseline design was used to evaluate the intervention package over the course of approximately 4 weeks. Dependent variables included rates of on-task behavior, academic productivity, and teacher and participant satisfaction with the intervention. Comparison data from classroom peers for on-task behavior were also collected.

Results showed immediate, large, and durable changes in on-task behavior for each of the 4 participants. At baseline, the rate of on-task behavior displayed by the 4 participants while working on independent math assignments averaged 47% of the intervals observed. During the intervention, the participants' average rate of on-task behavior increased to 86% of the intervals observed. Follow-up observations of the participants 3 weeks after the termination of the study showed that the gains in on-task behavior achieved during the intervention were maintained. Improvement in academic

performance could not be determined statistically based on the independent seatwork that was collected. Teacher report indicated that the intervention package had a positive effect on the participants' academic performance in the classroom. Both teacher and participant feedback concerning the use and effectiveness of the intervention package were positive.

As a result of implementing the intervention package, the large gap between the participants and their peers at baseline was effectively closed. The procedures used in the intervention package provide for teacher and student satisfaction and represent an effective and viable method for school professionals to increase on-task behavior in either the general education or special education classroom.

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INTRODUCTION AND LITERATURE REVIEW

Assuring that each student is academically successful is one of the primary goals of schools and teachers. Not only is this a goal of educators, legislation increasingly holds them accountable for student achievement (Stipek, 2006). An important component of a student's ability to show academic growth is their ability to remain engaged in academic tasks (Greenwood, Terry, Marquis, & Walker, 1994). When students are engaged in classroom activities, their ability to learn increases as a consequence (Ponitz, Rimm-Kaufman, Grimm, & Curby, 2009). Academic success and behavioral conduct are intertwined (Masten et al., 2005). If a student is attentive and watches and listens to the teacher, their rate of academic achievement will advance. Conversely, if a student is disruptive and off-task, he or she will be unable to participate effectively in activities that promote learning. Furthermore, disruptive behavior may prevent the learning of others, and interfere with the teacher's ability to teach (Greenwood, Horton, & Utley, 2002). A poll conducted by the American Federation of Teachers indicated that 17% of teachers lost 4 or more hours of teaching per week due to disruptive classroom behavior. Another 19% said they lost 2 or 3 hours due to disruptive behavior (Walker, Ramsey, & Gresham, 2004). With teachers losing so much instructional time due to problem behaviors related to lack of academic engagement, it is not difficult to see why one of the most common reasons for referral to school support personnel is off-task behavior (Roberts, 2003).

On-Task Behavior

As a whole, there is significant overlap between the definitions of academic engagement and on-task behavior. Nystrand and Gamoran (1991) described two types of academic engaged time. The first is procedural, in which observed behaviors such as paying attention and completing assignments are included. The second is substantive, which is a student's sustained engagement in instruction. Ducharme and Shector (2011) describe a student as being on-task "when they are actively engaged in classroom activities that facilitate learning, and not engaged in behaviors that detract from learning" (p. 266). Ponitz et al. (2009) describe engagement as "correspondence between a child's observable behavior and the demands of the situation, including attending to and completing tasks responsibly, following rules and instructions, persisting in the face of difficulty, and exercising control" (p.104). Behaviors such as maintaining eye contact with the classroom teacher or task and performing requested tasks in a timely manner have been identified as central components of attending or being on-task by Reavis et al. (1996) and Jenson, Rhode, and Reavis (1995).

Ducharme and Shector (2011) described a student's ability to remain on-task in the classroom as a "keystone" behavior. They define a keystone behavior as being a "relatively circumscribed target behavior that is foundational to a range of skills and related to other responses such that, when modified, can have a substantial positive influence on those other responses" (p. 261). A student's ability to remain on-task qualifies as a keystone behavior because on-task and problem behaviors are intrinsically incompatible. If a student is engaged in an appropriate activity, it stands to reason that they cannot be engaged in various inappropriate behaviors at the same time. Interventions that

target specific on-task behaviors are likely to produce covariant positive effects such as increases in academic achievement (Ducharme & Spector, 2011). Interventions that increase on-task behavior have been shown to be successful in decreasing the frequency of disruptive behaviors and inappropriate social behavior that a student may manifest in the classroom (Martens & Hauk, 1989; McKissick, Hawkins, Lentz, Hailey, & McGuire, 2010).

Behaviors and nonacademic skills that contribute to academic success have also been referred to as promoting or enabling skills (DiPerna & Elliot, 2002). DiPerna and Elliot (2002) identified a student's ability to remain engaged in the classroom as an "academic enabler." Academic enablers are defined as "attitudes and behaviors that allow a student to participate in, and ultimately benefit from, academic instruction in the classroom" (p.294). As an academic enabler, a student's ability to remain engaged in academic tasks has been shown to help promote their academic achievement (Brigman, Lane, Switzer, Lane, & Lawrence, 1999; DiPerna, Volpe, & Elliot, 2001).

With all of the benefits that have been shown to be associated with increased frequency of on-task behavior, it becomes apparent that using interventions and programs that increase a student's ability to remain actively engaged in appropriate classroom activities is an integral part of helping them to achieve success in the classroom. In fact, interventions that contribute to student's engagement in learning, lead to more orderly and positive classroom environments, increase time focused on learning, and increases in school attendance and graduation rates (National Association of School Psychologists, 2010).

Self-Monitoring

Self-monitoring strategies help students control and keep track of their own behavior, which leaves teachers with more time to focus on teaching academic skills (Sheffield & Waller, 2010). The procedure is easy to implement as well as time and cost efficient, making it an attractive method of behavior change in the school environment (Wood, Murdock, Cronin, Dawson, & Kirby, 1998). Self-monitoring is a positive intervention procedure in which a student observes and collects data concerning his or her own behavior (Jenson, Rhode, & Reavis, 1995). The procedure includes two basic steps. First, a student assesses his or her own behavior and decides if a target behavior has occurred. Second, the student records the occurrence of the target behavior (Prater & Hogan, 1992). The occurrence of the behavior can be recorded at the student's own desk on a small card, sheet, checklist, or form (Sheffield & Waller, 2010). A student can be prompted to self-monitor using a variety of methods (Shapiro, 2004). Prompts to self-monitor can include strategies such as using audio signals (Prater & Hogan, 1992), watching a clock (Dalton, Martella, & Marchand-Martella, 1999), or using a tactile prompt (Amato-Zech, Hoff, & Doepke, 2006). Due to the reactive effect that often occurs when a student becomes conscious of the frequency of his or her own behavior, the act of marking and keeping track of a behavior can change how often a certain behavior occurs by itself without the use of a reward (Reavis et al., 1996).

Self-monitoring procedures have been shown to be an effective treatment for increasing behavioral and academic performance alone (Harris, Freidlander, Saddler, Frizzle, & Graham, 2005; Maag, Reid, & DiGangi, 1993) or as a component of an intervention package (Sheffield & Waller, 2010). These interventions have also been used

successfully with students with a variety of diagnoses or classifications (Briesch & Chafouleas, 2009). More specifically, the intervention has been used successfully with students with learning disabilities (Wolfe, Heron, Yvonne, & Goddard, 2000), attention-deficit hyperactivity disorder (Mathes & Bender, 1997), and autism spectrum disorders (Southhall & Gast, 2011).

Although self-monitoring has a variety of applications (Sheffield & Waller, 2010), one of the most studied areas reported in the self-monitoring research is the effect that self-monitoring interventions have had on increasing on-task behavior (Reid, 1996). In a review of 22 studies that used self-monitoring to increase on-task behavior, Reid (1996) concluded that the effects of self-monitoring procedures on increasing on-task behavior are robust and have been demonstrated to yield positive results across age levels and instructional settings. Self-monitoring can be particularly effective for improving on-task behavior in classrooms where students are required to complete independent seatwork (Prater, Joy, Chilman, Temple, & Miller, 1991).

A study in which six students previously diagnosed with ADHD participated in a self-monitoring intervention designed to increase rates of on-task behavior was conducted by Harris, Friedlander, Saddler, Frizzelle, and Graham (2005). The participant pool in this study was made up of both male and female students in the third through fifth grades, who had been identified by their teachers and special education teachers as having difficulty remaining on-task.

As part of the intervention, the students met individually with their special education teacher for a training session during which time they discussed the importance and meaning of paying attention. During this training session participants were taught to

ask, “Was I paying attention?” upon hearing a taped tone. Each time they heard the tone, the participants were also taught to self-record whether or not he or she was on-task by marking a tally sheet that contained “yes” and “no” columns. The intervention took place in each participant’s special education classroom while they participated in a 15-minute spelling period. During the intervention, the participants heard the self-monitor prompt tone from headphones that were connected to a tape player. The tone sounded at random intervals with a mean of 45 seconds. The self-monitoring intervention was not combined with any form of external reinforcement.

Using this method, each student’s rates of on-task behavior increased significantly. As a group the participant’s on-task rates at baseline averaged 55% of the intervals observed. While receiving the intervention the six participants’ mean rate of on-task behavior increased to 94% of the intervals observed.

Mathes and Bender (1997) conducted a study where students with attention-deficit/hyperactivity disorder (ADHD) who were already receiving pharmacological treatment participated in a self-monitoring intervention designed to increase rates of on-task behavior. The participants in this study consisted of three elementary school boys in the third, fourth, and fifth grades. Each participant received some of his core instruction in a special education classroom.

At the beginning of the intervention phase, the participants’ special education teacher introduced the self-monitoring procedure and explained the difference between on- and off-task behavior. After this, the teacher presented the participants with a tape recorder, a set of headphones, a cuing tape, and a self-monitoring sheet. Each time a participant heard a prompt from their headphones, they were taught to ask themselves,

“Was I paying attention when I heard the tone?” They were then taught to check the self-monitoring sheet under “yes” or “no” and then return to work. The self-monitoring procedure was reviewed with the participants on each of the 2 days following the initial training.

The self-monitoring intervention took place in a special education classroom while each participant completed independent seatwork. A fading phase took place after 10 days of the intervention. During this phase the participants did not use the cuing tape. During the fading phase of the study each student was taught to simply ask himself the question, “Was I paying attention?” whenever they thought about it. During this phase the participants continued to record their responses on the tracking sheet. A second fading phase also took place. During this phase the participants simply asked themselves, “Was I paying attention?” No recording took place during the second fading phase.

Using this self-monitoring procedure, each participant’s rates of on-task behavior increased significantly during the study. The percent of intervals of on-task behavior during baseline were 40%, 38%, and 37% for the respective participants. During the first phase of the intervention the participants’ rate of on-task behavior increased to 97%, 87%, and 94%, respectively. During the fading phases, the participants’ rates of on-task behavior remained much higher than at baseline. During the final fading phase the participants were observed to be on-task 99%, 97%, and 96% of the intervals observed.

As shown above, self-monitoring interventions are an easy to implement, time efficient way to effectively increase on-task behavior in the classroom. The intervention can be used with students who have been diagnosed with ADHD, are currently receiving pharmacological treatment, or who are displaying high rates of off-task behavior for

various other reasons. The intervention is also very flexible in that a teacher can adjust the way it is conducted to fit a particular child or classroom environment. One adjustment that can be made is in the way that a student is prompted to self-monitor. A student can self-record when the thought occurs to them or they can receive a prompt from a clock or a beep-tape. Another alternative is to use a tactile prompt such as the MotivAider®

The MotivAider®

The MotivAider® is a small battery powered electronic device that can be attached to a student's waistband or placed in their pocket. The purpose of the MotivAider® is to enable a student to make desired changes in their behavior by providing a prompt in the form of a small vibration as a reminder to engage in the desired behavior (Levison, Kopari, Fredstrom, 2011). One feature of the device that sets it apart from the majority of other clocks and personal timers available on the market today is that it can be set to silently vibrate at regular intervals, or it can be set to vibrate at random intervals as a tactile prompt. The vibration prompt can be set to last from 1 to 5 seconds as a steady vibration or as several quick vibrations. The vibration prompts can also be set as frequently as every few seconds or as far apart as every 24 hours. The intensity of the vibration may also be adjusted (Levison & Young, 2008).

The MotivAider® has received positive reviews from parents and professionals concerning the usage, effects, and acceptability of using the device with children who have been diagnosed with ADHD and Autism Spectrum Disorders (Marner, 2010; Okano, 2009). As well as students who display difficult behaviors, wearing the device as a reminder to provide frequent positive feedback has been recommended to parents and

teachers (Barkley, 1993). In a review of the various usages of the MotivAider® by Flaute, Peterson, Norman, Riffle and Eakins (2005) it was noted that “The MotivAider can help keep students focused on a task, reduce ‘nagging’ from a teacher, and eliminate the need for constant reminders to the student to stay engaged” (p.3).

In a manual co-authored by the creator of the MotivAider® entitled *Helping Kids Change Their Own Behavior: The Helpers Guide to the MotivAider Method* (Levison, Kopari, & Fredstrom, 2011), several benefits to using the MotivAider® as a tool to help children increase positive behaviors are proposed. First, because a child who wears the MotivAider® experiences the behavioral prompts on their own, they may feel personally responsible for the successes that they achieve. Second, the reminders that a child receives from the device are consistent, whereas teachers or aides may forget to give a prompt until a child is already off-track. Finally, the MotivAider® is not very noticeable and the prompts that it gives are only detectable to the student wearing it. This helps prevent any negative peer reactions.

The use of the MotivAider® as a prompt to self-monitor is less intrusive and perhaps more practical for use in a classroom setting than the use of traditional beep-tapes or verbal prompts (Amato-Zech, Hoff, & Doepke, 2006). Recent studies have effectively used the MotivAider® as part of self-monitoring interventions that have increased on-task behavior (Amato-Zech et al., 2006; Legge, DeBar, & Alber-Morgan, 2010) as well as academic performance (Johnson, 2007). Using the MotivAider® as a prompt to self-monitor may also increase the effectiveness of self-monitoring interventions (Dodson, 2008).

Self-Monitoring Using The MotivAider®

Amato-Zech, Hoff, and Doepke (2006) used the MotivAider® as a prompt to self-monitor in order to increase on-task behavior in three, fifth grade students in a special education classroom. As part of the intervention, the participants were trained to self-monitor their on-task behavior during two group sessions and two practice sessions in the classroom. The self-monitoring intervention was conducted while the students participated in reasoning and writing instruction. The MotivAider® was set to vibrate at 1-minute fixed intervals during the first part of the study and was later adjusted to 3-minute fixed intervals for the remainder of the study. Each time the MotivAider® vibrated, the participants marked whether or not they were paying attention at that time by checking “yes, I was paying attention” or “no, I was not paying attention” on a self-monitoring form. The results of this study indicate that at baseline the participants in this study were on-task for 55% of the intervals observed. During the intervention phase, the participants’ mean rate of on-task behavior steadily increased to more than 90% of the intervals observed. The intervention received high acceptability rating for effectiveness and ease of use by both teachers and participants involved in the study.

Legge, DeBar, and Alber-Morgan (2010) examined the effectiveness of self-monitoring with a MotivAider® to increase the on-task behavior of three boys in the fifth and sixth grades. Two of the boys had a diagnosis of autism. The other boy had a primary diagnosis of cerebral palsy, but also displayed behaviors associated with autism. After an initial training session, each participant was provided with a MotivAider®, which was set to prompt at a 2-minute fixed interval. Each participant was also provided with a self-monitoring sheet. Each time the MotivAider® vibrated, the participants wrote either a plus

(+) or a minus (-) on the sheet depending on whether or not he judged himself to be on-task. Each self-monitoring session lasted 20 minutes and took place in a special education classroom while the participants completed independent math assignments.

Each of the three participants in the study showed immediate increases in on-task behavior upon initiation of the intervention. During the baseline phase of the study the participants mean rate on-task behavior were 26%, 53%, and 77%, respectively. After being trained with the MotivAider® as a prompt to self-monitor all three participants showed immediate gains in their rates of on-task behavior. During the treatment phase, the participant's mean rate of on-task behavior increased to 91%, 98%, and 97% of the intervals observed. In addition, all three participants continued to display 80% to 100% on-task behavior during maintenance probes collected each week for 3 weeks following their last self-monitoring session. During the maintenance probes, the self-monitoring materials were not used.

As shown above show the MotivAider® can be an effective tool to use as a prompt to self-monitor. It is easy to work and can be used by students who have various behavioral disorders or who simply display high rates of of-task behavior. The device itself is small and the vibration prompt can be adjusted to the liking of the student who wears it. The vibration prompt used by the MotivAider® is only noticeable to the student wearing it and does not disturb the rest of the class. The prompts can be set at random intervals and are easy to adjust during an intervention.

Self–Modeling

Self-modeling is an intervention procedure where an individual observes images of himself or herself engaged in a target behavior. The images are commonly captured on video, edited into short vignettes displaying only targeted behavior, and then repeatedly viewed by the participant in order to learn skills or to adjust to new environments (Dorwick, 1999). The vignettes provide a student with information and feedback as to what behavior is expected and what will happen if he or she engages in the target behavior (Davis, 1979). In order to increase the efficacy of self-modeling, it has been suggested that the practitioner should add verbal prompting or coaching during the self-modeling intervention (Clark, Kehle, Jenson, & Beck, 1992). The effect that video self-modeling has on helping a student to develop a desired target behavior is usually immediate, making the intervention time and cost effective. Furthermore, self-modeling studies conducted in the school environment have shown strong evidence that the effects of the self-modeling interventions are maintained over time and generalize across environments (Hitchcock, Dorwick, & Prater, 2003).

Vygotsky (1978) indicated that learning is most effective when done within the zone of proximal development, which is when the level of skill to be learned is just beyond current performance. In a self-modeling intervention, video vignettes can be edited in such a way as to show a learner performing at a higher level than they have previously attained. In other words, the edited vignettes can teach skills within learner's zone of proximal development. This type of self-modeling has been termed "feedforward" self-modeling (Dorwick, 1999). Video feedforward techniques have been shown as to be an effective

technique in the acquisition of physical skills, social skills, and classroom behavior (Dorwick, Kim-Rupnow, Power, 2006).

Feedforward video self-modeling provides a student with video evidence that he or she can succeed. Buggey (2007) suggests that children who are having difficulty with a task could benefit from the “prestige and confidence” that comes from watching their own successes in a video format. A benefit to seeing oneself successfully performing a targeted skill is that it promotes a sense of self-efficacy and it “provides clear information on how to best perform skills” and “strengthens beliefs in one’s capabilities” (Bandura, 1997, p. 94). A sense of self-efficacy, which can be defined as the student’s belief that he or she can succeed, is an important factor in promoting learning. In fact, developing a sense of self-efficacy is a core facet and benefit of self-modeling techniques (Buggey, 2007). When children observe themselves doing well, it raises their self-efficacy for further learning and leads them to increase their efforts and persist in the targeted task (Schunk & Hanson, 1989).

Self-modeling has been repeatedly verified as an effective intervention strategy that can be applied to a wide spectrum of behaviors and conditions (Bray & Kehle, 2001; Kahn, Kehle, Jenson, & Clark, 1990; Schunk & Hanson, 1989; Ste-Marie, Vertes, Rymal, & Martini, 2011). In a review of approximately 150 studies that employed self-modeling, Dorwick (1999) identified seven categories of application where self-modeling had been used with positive results. These categories include increasing adaptive behavior currently intermixed with nondesired behaviors, transfer of setting-specific behavior to other environments, use of hidden support for disorders that may be anxiety based, improved image for mood-based disorders, recombining component skills, transferring role-play to

the real world, and reengagement of a disused or low-frequency skills. Recent studies have also found that self-modeling is an effective procedure for addressing social-communication skills, functional skills, and behavioral functioning in children and adolescents with autism spectrum disorders (Bellini & Akullian, 2007; Bellini, Akullian, & Hopf, 2007).

A growing percentage of studies in the area of self-modeling are examining the use of video self-modeling in the school setting. Hitchcock, Dorwick, and Prater (2003) conducted a review of 18 such studies that met their strict criteria. The review included studies that identified dependent variables in the areas of disruptive behavior, compliant classroom behavior, language responses, peer relationships, adaptive behavior, math skills, and reading fluency. Each of the studies included in the review demonstrate moderate to strong outcomes. It was further indicated the results obtained in the school-based self-modeling studies demonstrated a high level of maintenance and generalization.

More specifically, self-modeling has been shown to be an effective procedure to increase on-task behavior in students who display elevated levels of disruptive behavior in the classroom. In a study conducted by Kehle, Clark, Jenson, and Wampold (1986), four children ages 10 to 13 in a special education classroom who exhibited high rates of off-task and disruptive behavior were selected to receive a self-modeling intervention. In order to conduct the intervention, each student was video recorded while participating in regular classroom activities for approximately 25-30 minutes. The video recording for each participant was then edited into an 11-minute tape that only showed the participant displaying appropriate classroom behavior.

Prior to receiving the intervention, the mean rate of off-task behavior exhibited by the participants in the study averaged 47%. During the intervention, three of the participants were simply shown their tapes once a day for 5 days. As a result of the self-modeling intervention, their rates of off-task behavior were reduced to only 11%, which represents a significant decrease in their rates of off-task behavior. The fourth participant in this study served as a control and watched an unedited videotape during the intervention phase. When the fourth participant was shown the unedited video, the participant's rates of off-task behavior actually increased. At the end of the study the control subject was shown his edited video twice, at which time his rate of on-task behavior was observed to be within range of the other participants at 14%. Follow-up data were collected after 6 weeks at which time it was observed that the treatment gains were maintained.

Possell, Kehle, McLoughlin, and Bray (1999) conducted a self-modeling intervention to decrease rates of disruptive classroom behavior in both the regular education and special education classrooms. Participants in the study included four male students ages 5 to 8 years old. Each of the participants met public law 94-142 criteria for social emotional disturbance. Two of the participants received their academic instruction in a general education classroom and the other two participants were in a self-contained special education classroom.

During the baseline phase of the study, the participants were videotaped on three or more occasions for approximately 30 to 45 minutes. The videotape was then edited to create two, 5-minute self-modeling videotapes that only depicted appropriate classroom behaviors. As part of the intervention the two self-modeling videotapes were viewed, in a random order, on at least six occasions over a period of 2 weeks. During each intervention

session the researcher was present. Using a predetermined script, the participants were informed that they would be watching a video of their classroom behavior in the school psychologist's office. No other explanation was given with the exception that if a participant looked away from the television, he was prompted to attend to the video recording.

After viewing the self-modeling video recordings, participants displayed a reduction in disruptive behavior. At baseline, the participants displayed disruptive behavior in approximately 60% of the intervals observed. During the self-modeling intervention their rate of disruptive behavior decreased to a mean of about 40% of the intervals observed. Follow-up data were collected immediately after the cessation of the intervention phase and at the end of 6 weeks following the intervention phase. Follow-up data demonstrated that the participants' rates of disruptive behavior remained lower than baseline rates at approximately 43% of the intervals observed.

Clare, Jenson, Kehle, and Bray (2000) conducted a self-modeling intervention to increase rates of on-task behavior using five self-modeling videos viewed at random, four times a week, over a 3-week period. The participants included in the study were three male students in a special education classroom, aged 9 to 11. At the onset of the study the participants were observed to be on-task an average of 30% of the intervals observed. In order to create the self-as-a-model videotapes, each student was videotaped while participating in independent seatwork activities. The videotapes were then edited to create five videos that were approximately 5 minutes in length for each student. The videos were edited to depict each student engaged in class work and displaying appropriate on-task behavior. The use of multiple videos was designed so that each participant only watched

each video twice over a 3-week treatment condition. The videos were viewed one-on-one with the researcher. A conversational protocol was used which began with an initial prompt to watch the entire video and also reminded the student to attend to the video when needed. The treatment effects for each student were not only immediate, but also significant. The mean on-task rates for the intervals observed during the intervention for all three participants increased to 86%. Data collected at 6 and 8 weeks follow-up indicated that the treatment effects were maintained. Consumer satisfaction data collected at the end of the study indicated that both the participants and their teachers were satisfied with the procedures used.

Peer-Modeling

Video peer-modeling interventions are similar to those used in self-modeling described in the previous sections with the exception that the video vignettes that are produced and then viewed, consist of recordings of a student's peers appropriately displaying the desired behaviors. Studies have shown that peer-modeling interventions that follow a similar procedure as self-modeling interventions can be equally effective in increasing academic skills (Schunk & Hanson, 1989) and on-task behaviors in the classroom (Clare, 1992). Furthermore, peer-modeling procedures have yielded positive results in modifying affective behavior (Gena, Couloura, Kymissis, 2005), increasing peer interaction, and decreasing inappropriate behaviors (Baker, Lang, O'Reilly, 2009). An increasing number of studies also support the use of peer-modeling procedures for addressing social-communication, functional skills, and behavioral functioning in children with autism spectrum disorders (Bellini & Akullian, 2007; Delano, 2007).

Peer-models have a great potential for modifying behaviors in children (Hartup & Lougee, 1975). Bandura's Social Learning Theory (1977) indicates that human behaviors are primarily learned by observing others and then modeling their actions. Students gain a significant amount of information about their own capabilities from knowledge about how others perform. Observing others succeed conveys a message to an observing student that he or she is capable and can motivate them to attempt a task (Schunk, 1991). Observing models of the same gender, age, and whom students view as being similar in competence may help increase the effectiveness of peer-modeling and helps promote a sense of self-efficacy for learning target skills (Schunk, Hanson, & Cox, 1987).

The use of more than one model for a targeted behavior can be beneficial. Multiple peer-models increase the probability that the observer will perceive themselves as similar to at least one of the models and therefore capable of learning or performing a target behavior. This perceived similarity is enhanced when the peer-models that are used are similar in gender and age to the observer. Furthermore, the use of multiple models decreases the likelihood that the observer can discount the successful behaviors of a single peer (Schunk 1987).

Video peer-modeling has been shown to be just as effective as using in vivo models (Gena, Couloura, & Kymissis, 2005), and in some cases, more effective (Charlop-Christy, Le, & Freeman, 2000). Video modeling has also been shown to be more time and cost efficient than using in vivo models (Charlop-Christy et al., 2000). Thelen, Fry, Fehrenbach and Frautschi (1979) discussed several of the advantages of using video modeling over in vivo models. First, video recordings can be produced in a variety of naturalistic settings that would be difficult to re-create in vivo in a clinic or classroom setting. Second, the

therapist or school professional has greater control over the modeling scene because video recordings can be edited until a desirable scene is produced. Third, video recordings permit the convenient use of multiple models and repeated observations of the same models because the actual models do not have to be present. Finally, multiple students may view the same peer-model video recordings.

Richards (2002) studied the effectiveness of a video peer-modeling intervention to increase on-task behavior in the classroom. The study included three male students in the fourth and fifth grades who displayed high rates of off-task behavior in the classroom. As part of the intervention, a peer-model video was created. The video contained eight video segments that were about 5 minutes in length. Each segment showed a different peer-model displaying appropriate on-task behaviors while engaged in an academic task. The peer-models were approximately the same age as the participants in the study and were chosen to include a variety of physical appearances. The same videotape was shown to each of the three participants. As part of the intervention, the participants viewed one video segment each day over a 2-week period. Each video session was conducted one-on-one with the researcher. During the video session, comments were made by the researcher directing the participants to attend to specific examples of on-task behavior that were being demonstrated on the video. They were also encouraged to display those same behaviors in the classroom.

Using this method, significant gains in on-task behavior were achieved for each of the three participants. The mean baseline on-task rate for the participants was observed to be 40% of the intervals observed. During the intervention, that rate was improved to 65%.

Follow-up data at 2 and 4 weeks showed continued improvement with a mean on-task rate of 76% percent for all three participants.

Richards, Tuesday-Heathfield, and Jenson (2010) examined the effectiveness of a class-wide peer-modeling intervention package to increase on-task behavior. In this study the peer-modeling intervention took place in three different classrooms ranging from the third to sixth grade. The classes were made up of boys and girls and contained 14 to 20 students each. As part of the study a videotape of students in the third through sixth grade was produced for use in the peer-modeling intervention. The models that were chosen consisted of both boys and girls with a variety of physical characteristics. Each model was videotaped doing simulated schoolwork in a classroom setting for approximately 4 minutes with near 100% rate of on-task behavior. In total, 14 different peer-modeling video segments were created.

The intervention sessions were conducted in each respective classroom twice a week for a total of six to eight sessions. Each session was approximately 15 minutes in length. At the beginning of each session the researcher encouraged the class to attend to the peer-modeling video after which a peer-model video was shown to the class. While the class was watching the video, the researcher made coaching statements regarding the on-task behavior that was being modeled on the video approximately every 30 seconds. Following the video segment, specific skills related to on-task behavior were discussed and then the participants in the class were asked to commit to try to imitate the behaviors demonstrated by the peer model shown in the video.

The class-wide peer-modeling intervention proved to be effective in increasing on-task behavior. All three classes demonstrated gains in the mean number of students on-task

during the intervention. At baseline, the mean number of students that were on-task for the three classes that participated in the study ranged from 69% to 73%. During the intervention, the number of students observed to be on-task in these classrooms increased and the percentage of students that were on-task ranged from 75% to 85%. During the follow-up phase of the study at 4 and 8 weeks following the intervention, the mean percentage of students on-task in each classroom continued to be higher than the percentage recorded at baseline.

Combining Modeling Procedures With Self-Monitoring

Modeling procedures have been successfully combined with self-monitoring to decrease rates of off-task behavior in the classroom (Clare, 1992; Coyle & Cole, 2004). Clare (1992) conducted a study in which self and peer-modeling procedures were combined with a self-monitoring intervention in order to increase on-task behavior. The study included six male participants in the fourth through sixth grades who were receiving special education services. Each of the participants selected for the study demonstrated elevated levels of off-task behavior in their respective classrooms. During the study, three of the participants received a peer-as-a-model intervention and the other three participants received a self-as-a-model intervention. Each of the self and peer-modeling videos was approximately 5 minutes in length and showed either the participant or a peer-model displaying appropriate on-task behavior while doing independent seatwork. Each intervention session was conducted one-on-one with the researcher and only one video segment was viewed during each intervention session. Coaching statements focused on

directing the participants' attention to the on-task behaviors that were being modeling were made by the researcher throughout each video session.

After receiving 10 sessions of the self or peer-modeling intervention, a self-monitoring intervention was added to both conditions. As part of this intervention, each subject was trained on how to self-monitor their on and off-task behaviors in the classroom. During the training the researcher defined the on-task and off-task behaviors that were to be tracked. Then the participant practiced rating on-task and off-task behaviors using a self-monitoring grid together with the researcher while watching a watching a practice video of a student prepared for training purposes. The self-monitoring grid contained 20 boxes for marking intervals. After the training session, the participants used the self-monitoring grid in the classroom. They were instructed to use all 20 boxes on their grid to self-monitor their behavior during their next independent seatwork activity. No signaling device was used. The participants simply marked their grids whenever they thought of it. No rewards for accuracy or improved on-task behavior in the classroom were provided. Each participant participated in the self-monitoring intervention in combination with either the self-modeling or peer-modeling intervention for a total of 5 treatment days.

The results of using this intervention package indicated immediate, large, and durable increases in on-task behavior for all subjects across conditions. At baseline, the three subjects in the peer-as-a-model condition were found to be on-task an average of 32% of the intervals observed. During the peer-modeling intervention, the participants' on-task behavior increased to 88% of the intervals observed. The rate of on-task behavior for the three participants in the self-as-a-model condition were found to be on-task an average of 33% of the intervals observed during baseline. Their average rose to 86% of the

intervals observed during the self-modeling intervention. When self-monitoring was added to the intervention package of the study, the average rate of on-task behavior for participants in each condition increased slightly to about 90% of the intervals observed. Follow-up observations at 6 and 8 weeks indicated that the participants' maintained on-task behavior far superior to their baseline rates.

As shown above, video modeling techniques are an effective way to increase rates of on-task behavior in students that display high rates of off-task behavior. The techniques are time and cost efficient as well as easy to implement. Video modeling interventions also receive positive reviews from both teachers and students, which make them a great choice for use in the school setting.

Purpose of the Study

Off-task behaviors such as not remaining seated, talking out, not working, and acting out are among some of the most frequently reported problematic behaviors that occur in the classroom (Bowen, Jenson, & Clark, 2004). The prevalence of students with these types of behavioral tendencies in the classroom is increasing and many teachers can identify multiple students in each of their classes who exhibit high rates of off-task behaviors (Bowen et al.). In fact, an increasing number of today's students meet criteria for a recognized mental disorder and many such students have more than one disorder (Walker, 2004). Because a student's ability to be academically successful is related to their ability to attend in the classroom (Ducharme & Spector, 2011), it is essential that school professionals implement quality research based interventions designed to help these students manage their behavior. Because not all interventions work in every situation with

every student (Rathvon, 1999; Reavis, Kukic, Jenson, Morgan, Andrews & Fister, 1996), the implementation of multiple research-based interventions in a package form may increase the probability that a desired behavior will either increase or decrease. The use of multiple interventions may also have an additive effect and help mask weaknesses inherent to any one intervention.

As previously described, self-monitoring, self-modeling, and peer-modeling interventions have all been shown to be effective procedures for decreasing off-task behavior. However, it can be difficult and time consuming for school professionals to assemble all of the information and materials needed to implement them. With the increasing demands placed on educators (Walker, 2004), time has become an increasingly valuable commodity in the classroom. Because of this, it comes as no surprise that teachers are more likely to use interventions that are not only effective for treating a target behavior, but time efficient as well (Elliot, 1988). If these interventions were put together into a pre-assembled package for use by school professionals, it may be more feasible for them to effectively implement these interventions. Before such a package is created, it is important to establish the effectiveness of the combined interventions to decrease off-task behavior. Therefore, the purpose of this study was to evaluate the acceptability and effectiveness of an intervention package that includes the use of peer-modeling, self-modeling, and self-monitoring to decrease off-task behavior.

Research Hypotheses

1. Rates of on-task behavior will be higher than baseline on-task rates after receiving the package intervention than during baseline.

2. On-task rates will remain improved above baseline at follow-up observations at 2 and 4 weeks when compared to the baseline.
3. Teachers will report above average ratings on the teacher questionnaire and that during the intervention an improvement was apparent in the participants' on-task behavior.
4. Classroom teachers will report ratings that are above average on the teacher questionnaire regarding participation in the intervention.
5. Participants will report above average ratings on the participant questionnaire regarding participation in the intervention.
6. The participants' academic accuracy and completion of problems will increase on math worksheets while they are participating in the intervention.

METHODS

Participants

Four participants were identified for inclusion in this study, and will be referred to as Participants A, B, C, and D. The participant pool consisted of 1 female and 3 male students in the second and third grades. Participant A was in the third grade. Previous testing administered by the school indicated average cognitive ability. He received his math instruction in a regular classroom; however, he did receive some special educational services under the classification of Specific Learning Disability in the areas of reading, and writing.

Participant B was also in the third grade and was the only female participant in the study. On a voluntary questionnaire sent home with the permission form to participate in the study, Participant B's parents indicated that she had previously been diagnosed with ADHD. (See Appendix B for a copy of the questionnaire.) However, throughout the course of this study Participant B did not take any medication to treat the symptoms associated with ADHD. Previous testing administered by the school indicated low average cognitive ability. At the time of the study, she received special education services under the classification of Other Health Impairments in the areas of math and reading.

Participant C was in the third grade. Previous testing administered by the school indicated average cognitive ability. On the voluntary information questionnaire, his

parents indicated that he had been previously diagnosed with ADHD and that he was taking medication to treat the symptoms associated with ADHD. His medication was taken throughout each stage of the study. Participant C did have a special education classification of other health impairment; however, he received all of his core instruction in his regular education classroom and his progress was simply monitored by a special education teacher.

Participant D was the only student in the study who was in the second grade. Previous testing administered by the school indicated that he had low average cognitive ability. At the time of the study he received special educational services under the classification of specific learning disability in the areas of math and reading.

Setting

The study was conducted at an elementary school in a suburban school district in the Intermountain Area. The school was a regular education public school, which also offered special education classes in the areas of reading, writing and math. The school followed a year-round schedule and housed students from kindergarten through sixth grade. The various components of the intervention package were only conducted on Monday through Thursday of each week.

An empty third-grade classroom was used to conduct the self and peer-modeling video interventions. Two chairs were set up at a table in the back of the classroom to accommodate the researcher and the participants. All of the videos that were shown to the participants were viewed on a MacBook Pro 3,1 laptop computer with a 15' inch screen, which was set on the table directly in front of the participants. The self-monitoring intervention component, which included the use of the MotivAider® and a self-monitoring

form, took place in the general education or special education classroom where the participant received his or her regular math instruction.

The on-task observations were conducted in the classroom where the participants received their math instruction and participated in individual math seatwork time. Participants A and C received their math instruction and worked on their individual math assignments in their respective general education classrooms. Participants B and D received their math instruction and worked on their individual math assignments in a special education classroom.

Research Design

A multiple-probe, multiple-baseline design (Cuvo, 1979; Horner & Baer, 1978) was used to evaluate the intervention package. A multiple probe design allows a researcher to use intermittent probes to evaluate the effectiveness of an intervention when continuous data measurement proves impractical or unnecessary (Horner & Baer, 1978). The use of a multiple probe technique helps to control for any reactive or extinction effects on a behavior that may be inadvertently caused by the constant presence of the researcher collecting data (Horner & Baer, 1978).

At the beginning of the study three baseline probes were taken for each participant in order to establish whether or not he or she was a good candidate for the study. Throughout the remainder of the study probes were always taken immediately before and after a participant entered the intervention phase. Probes were also conducted for each participant in the baseline phase immediately before another participant was about to enter the intervention phase. The remaining probes were collected at random during both the

baseline and intervention phases until 12 total probes had been collected for each participant. Each observation was conducted in the participants' respective classroom while they participated in independent math work.

Materials

Videos

A Flip UltraHD Video Camera, Model Number U2120B, was used to make the videos in this study. In order to obtain volunteers to help make the videos, the researcher asked the third-grade teachers at the participating school to recommend several students who modeled good attending behavior in the classroom. A permission form was then sent home to the parents of each child who was recommended. The permission form provided basic information about the purpose of study and the video recording process. (See Appendix A for a copy of all consent letters). On the day that the videos were made, 11 students who had returned their permission forms were at school and thus participated in the recording session. The pool of students who participated in the recording session was made up of four boys and seven girls in the third grade.

All of the recordings were made on the same day during school hours, at a time that was approved by the students' teachers and the school principal. The recording session took place in an empty third-grade classroom at the elementary school. In total, the recording session took approximately 2 hours. Before the video recordings were made, the purpose of making the videos was explained to each student and each student who desired to participate was asked to sign a consent form. Each of the 11 students consented to be in

the video. Upon completion of the recording session each student volunteer received a small treat. (See Appendix G for a copy of the video outlines.)

An adult volunteer was asked to role-play the part of the teacher during the filming session. The adult volunteer was briefed about the purpose of the study and was also given a consent form to sign prior to taking part in the recording session.

Observation video. The first DVD made for the purposes of this study was a training video used to establish interrater reliability between the researcher and the two volunteer observers. The video showed four boys and five girls in the third grade engaged in independent academic seatwork. The students were seated in individual desks arranged in rows and each student was provided with math worksheets to work on. During the recording session the students were asked to demonstrate typical classroom behaviors while working on their math worksheets. The students were also asked to occasionally demonstrate behaviors such as talking, inactivity, and playing with objects. An adult volunteer role-played the part of the teacher and was told to occasionally walk up and down each row of students during the recording session. The video was approximately 15 minutes in length and was designed to resemble observing a regular third-grade classroom during independent seatwork time.

Self-Monitoring training video. A second training video was made for the purpose of teaching the participants involved in the study on how to correctly use the MotivAider® in combination with the self-monitoring intervention. During this video, a peer-model was shown demonstrating the appropriate procedure for using the MotivAider® and correctly recording their behaviors on the self-monitoring form. Several examples of what constituted on-task and off-task behavior were also demonstrated. The peer-model chosen

for this video was male and was taken from the same pool of student volunteers that was used in the previous video.

Peer-Model video. A DVD was produced for use in the peer-modeling portion of the intervention. This video depicted male and female peer-models in the third grade working independently on math assignments. The peer-models were recorded while engaged in independent math assignment for approximately 5 minutes with near 100% on-task rate. The DVD contained 14 different peer-model clips. Seven of the clips portrayed female peer-models and seven of the clips portrayed male peer-models. Each female volunteer was filmed as a peer-model once. Since there were only four male volunteers, three of them were recorded twice in order to make seven male peer-model clips.

During the recording of each segment the peer-model was placed at a desk between two other students who were waiting their turn to be video recorded. The camera was zoomed in on the peer-model so that the viewer could only see a small portion of the students on either side of the model. The peer-model was instructed to stay focused on their assignment no matter what was happening around them. The two other students were occasionally prompted to talk to the peer-model, walk by the peer-model's desk, or cause other minor distractions. Other preplanned distractions included pretending that a student in the classroom was being called down to the office and the teacher helping a neighbor of the model student. At the end of each segment the adult who was playing the role of the classroom teacher would go up to the peer-model student and praise them for attending to their assignment. Seven different segments were created using male peer-models and seven segments were created using female peer-models. All of the segments were put on one DVD. Each segment was represented as its own chapter in order to allow for

randomization when selecting which peer-model to watch during the intervention. (See Appendix G for video outlines.)

Self-Modeling videos. Videos featuring the 4 participants involved in the study were also created. These recordings were done during the baseline phase of the study. In order to make these videos the camera was brought into each participant's respective classroom and placed in the least obtrusive location possible (Clare, 1992). Each participant was recorded on two separate occasions while doing independent seatwork in math. On each occasion, the participant was continuously video recorded until it was estimated that approximately 5 minutes of on-task behavior had been recorded. From this footage, two 5-minute self-modeling videos were created for each participant. The videos were edited to reflect only the instances when the participant was on-task and demonstrated appropriate classroom behavior.

MotivAider®

A MotivAider® (Behavioral Dynamics, 2000) was provided for each participant in the study. The MotivAider® is a tactile self-monitoring prompt, which was set to vibrate at random intervals with a mean of 60 seconds during the participant's class period. During the intervention phase of the study, each participant was provided with a MotivAider® to wear during independent seatwork time in his or her classroom. The MotivAider® was distributed and collected by the classroom teacher at the beginning and end of each independent seatwork period in math.

Self-Monitoring Form

During the intervention phase of the study each participant was provided with a self-monitoring form at the beginning of his or her independent math seatwork time. (See Appendix C for an example of the self-monitoring form). The form provided the participants with a place to record whether they were on or off-task each time they were prompted by the MotivAider®. The form consisted of a grid of 80 squares on a 4x5.5 inch piece of paper and was placed on the corner of the participant's desk. The form was distributed and collected by each participant's classroom teacher.

Procedures

The school principal, special education teacher, and regular education teachers assisted in the selection of the participants for the study. Initial permission to conduct the study was obtained from the participating school district and the principal of the elementary school where the study was conducted. The design and intent of the research study were initially explained to the principal and the special education teacher. They indicated a willingness to help with the study and offered to discuss it with some of the teachers in their building. After discussing the project with other teachers in the second and third grades, the special education teacher met with the researcher and presented a list of several students to consider for inclusion in the study. Each student on the list had been identified as being frequently off-task by his or her classroom teacher. After further discussion with the school it was decided that due to the year-round schedule followed by the school, the researcher would have to choose participants from one particular track. This was done in order to allow for enough continuous time in school to gather baseline data

and to run the intervention phase of the study. From the original list of students selected by their teachers as being good candidates for the study, 5 participants who pertained to the appropriate track were identified.

A form was sent to the parents of each child on the list of potential candidates for the study that provided basic information about the study. The form also asked for permission to specifically observe the on-task behavior of the child for possible inclusion in the study. On-task observations using whole-interval recording were conducted for each participant as the researcher received the permission to evaluate forms with a parent signature. Each of the first 4 participants to be observed had an on-task percentage at or below 62% on each of their first three baseline observations and it was decided that they would be appropriate candidates for the study. The 5th student was never observed and the parents were contacted to inform them that the student had not been selected for the study. The parents were also informed about several resources that were available that could be helpful in decreasing problematic behavior in the classroom.

A form asking for parent permission for inclusion in the study, which also contained additional information about the study, was sent to the parents of each student who was chosen to be part of the study. The parents of all 4 potential participants gave permission for inclusion in the study. In addition to parental consent, consent was also sought from each participant upon entering the intervention phase of the study. All 4 participants gave their consent to participate.

Volunteer Observer Training and Interrater Reliability

The researcher enlisted the assistance of two school psychologists who worked in the school district to help perform the on-task observations. In order to assure interrater agreement, an observation training session was conducted with each volunteer. During the training session, the researcher reviewed the definitions of on-task and off-task behavior included on the observation form in *The Tough Kid Tool Box* (Jenson, Rhode, & Reavis, 1995) with each volunteer. An observation training video was then used in order to practice performing the observations. Practice observations were repeated until each rater felt comfortable with the observation procedures and until a minimum of .80 interrater reliability was achieved using Cohen's Kappa, which corrects for chance agreement. The formula is as follows:

$$k = (Po - Pc) / (1 - Pc)$$

where: Po = the proportion of agreement between observers of occurrence and nonoccurrence

Pc = the proportion of expected agreement based on chance

In order to ensure that interrater reliability was maintained throughout the study, two observers collected data for each participant simultaneously during each phase. These observations occurred once while collecting baseline and follow-up data and twice while collecting intervention data for Participants A, B, and C. Two observers collected data simultaneously for Participant D twice during baseline and once while collecting data during the intervention and follow-up phases. The observation form and procedures will be described later in this section.

Baseline

Three baseline data probes were taken for all 4 participants using a response discrepancy whole-interval recording format (See Appendix C for a copy of the observation form). Baseline data were collected in three consecutive sessions for participant A. Four baseline data probes spread across 5 days were taken for participant B. Five baseline data probes spread across 7 days were collected for Participant C. Nine baseline data probes were collected over a period of 15 days for Participant D. After collecting the third baseline data probe for each participant, Participant A entered the intervention phase. Two days after Participant A entered the intervention phase, baseline data was once again taken for Participants B, C, and D, and then Participant B entered the intervention phase. This pattern of baseline data collection and entry into the intervention phase was duplicated for Participant C. Once Participant C entered the intervention phase, baseline probes continued to be taken for Participant D until Participant C had been in the intervention phase for a period of six sessions. At this time baseline data were taken for Participant D one more time and then Participant D entered the intervention phase. The independent math assignments that were worked on during each probe were also gathered.

Participant Training

Before each participant entered the intervention phase of the study they underwent a training session conducted by the researcher. During the training, each participant was taught how to correctly use the MotivAider® in conjunction with the self-monitoring chart. The training sessions were conducted with each participant individually. As part of the training, a video produced by the researcher was shown to each participant. The video

showed a peer-model correctly using the MotivAider® and the self-monitoring form. The video also explained which types of behaviors were considered “on-task” and which types of behaviors were considered “off-task.” The correct procedures for retrieving the materials and then returning them to the teacher were also modeled. (See Appendix G for an outline of the self-monitoring training video.)

Before entering the intervention phase, each participant was required to demonstrate the proper use of the MotivAider® in conjunction with the self-monitoring form to the researcher as outlined in the training video. A checklist was created for use in each training session in order to ensure uniformity for each participant. (See Appendix E for a copy of the self-monitoring training checklist.) When the participant was able to demonstrate each step, the researcher noted it on the checklist. The training session, which took no more than 1 day, continued until the participant was able to correctly demonstrate all aspects of the self-monitoring procedure.

Each teacher who had a participant involved in study also received training on the correct use of the MotivAider® and the self-monitoring chart prior to the participant entering the intervention phase. The teachers were shown the same training video that was shown to the participants. After the teacher watched the video the researcher answered any questions that they had concerning the self-monitoring procedure. The training lasted until each teacher clearly understood the procedure for conducting the self-monitoring intervention.

Intervention Phase

Upon entering the intervention phase each participant continued to be observed directly using a whole-interval recording, response discrepancy format. The researcher and the two school psychologist volunteers conducted the observations. Math assignments done during independent seatwork time were gathered each time a data probe was taken. Probes were taken prior and post to the phase change for Participants A, B, and C, and the remaining probes were conducted following a previously designed observation schedule so that the number of probes taken during the study for each participant including baseline data was equal to 12 probes.

A probe was taken for Participant D prior to entering the intervention phase; however, the researcher was not able to collect data after the first intervention session that Participant D was exposed to. This was due to the fact that the participant was late for school and missed his math class. On the day that the participant was late, he was able to participate in the peer/self-modeling intervention. On the next intervention day the participant was absent from school again and thus did not receive any part of the intervention package that day. The participant was ultimately able to receive the full intervention package for 3 straight days at the end of the study and probes were taken each day.

In order to assure that the data probes for each participant were collected in somewhat randomized manner, the researcher created an observation schedule before any of the participants were assigned a letter designation. Observations were assigned to various days of the study in order to assure that 12 probes would be collected for each participant. Observations were scheduled to match the study design as well as observer

availability. After the creation of the initial schedule, it was discovered that 2 of the participants received their math instruction during the same time slot. Because of this, some of the preassigned observations had to be moved in order to insure the availability of the necessary observers. The schedule was followed to the best of the researcher's ability throughout the study. The only deviations from the schedule occurred due to absences on the part of Participant D.

Components of the Self and Peer-Model Intervention Sessions

Each session of the self and peer-modeling interventions was conducted in a standardized format. Each session was approximately 10 to 12 minutes in total length with the video viewing taking up about 5 minutes of each session. The participants watched a recording of a peer-model twice and their own self-modeling video twice at random for a total of four modeling sessions during each full week of the intervention. The self and peer-modeling videos were simply alternated during short weeks. At the end of each session the researcher marked a checklist to record that each step was completed. (See Appendix E for a copy of the intervention checklist.) The steps that were followed for each session were as follows:

1. The participant was escorted from their classroom to the room where the intervention took place.
2. The researcher and the participant engaged in conversation in order to maintain or establish rapport.

3. The researcher made one or two comments prior to the start of the video to encourage the participant to attend to the video and to look for ways the subject in the video was able to stay on-task.
4. The video was started.
5. While watching the video for that session, the researcher made coaching statements approximately every 30 seconds focused on the on-task behavior that the subject in the video displayed while doing their independent seatwork.
6. Once the video for the session ended, the researcher made one or two ending comments focused on encouraging the participant to display similar on-task behavior in his/her own classroom while working on independent math assignments.
7. The participant was given the opportunity to spin for a reward for having participated in the video session.
8. The researcher walked the participant back to his/her classroom.

Coaching Statements

Frequent verbal coaching statements from the researcher to the participants were made before, during, and after viewing the self and peer-model videos during the intervention phase. (See Appendix F for a copy of the coaching statement protocols.) Prior to watching a video the researcher engaged the participant in social conversation for approximately 1 minute in order to establish rapport. Before the start of each video, a statement was made that encouraged the participant to watch for the on-task behaviors that would be modeled in the video. During the video, the researcher made comments focused

on helping the participant to attend to specific on-task behaviors exhibited in the video approximately every 30 seconds. When the video was finished, the examiner made one or two ending statements that encouraged the participant to display the behaviors that were modeled in the video in their own classroom. The coaching statements used in this study were based on those used in studies done by Richards (2002) and Clare (1992).

Reinforcement

The participants were rewarded for actively participating in each self/peer-model intervention session using a reinforcement spinner system as found in *The Tough Kid Tool Box* (Jenson et al., 1995). The spinner that was used was divided into six different sections, each of which had a number that corresponded to a reinforcer on a reward menu. At the end of each intervention session, the participants were allowed to spin the arrow on the spinner. The number on the section where the arrow landed determined the reward that the each participant received. The rewards that were used included items such as pencils, candy, and small toys.

Self-Monitoring Intervention

During the intervention phase, each participant was involved in a self-monitoring intervention while they worked on their independent math assignments. Independent seatwork sessions were between 15 and 40 minutes in length. During this time the participants utilized the MotivAider® together with a self-monitoring form created by the researcher. (See Appendix C for a copy of the self-monitoring form.) The participants were given the choice to wear the MotivAider® on the waist of their pants or to place the device

in their pocket. The MotivAider® was set to vibrate at random intervals within a mean of 60 seconds. Each time the prompt vibrated the participant evaluated whether or not they were on-task at that time. If they were on-task, they put a “+” mark on their self-monitoring form. If they were off-task at the time of the prompt, they marked a “0” on the form. There was no reinforcement or consequence connected with the amount of “+” or “0” marks indicated on the chart by the participants. The self-monitoring form was placed on the corner of the participant’s desk. The self-monitoring materials were dispensed and collected by the participant’s respective classroom teachers.

Follow-up Phase

Using the same observation format employed during the intervention phase, three follow-up on-task observations were conducted for each participant while they were doing independent seatwork in math without intervention. Each time a participant was observed, his or her independent math work was collected and copied. These observations were conducted approximately 3 weeks following the intervention phase. During the 3 weeks between the intervention phase and the follow-up phase, the participants were “off-track” and thus they were not in school during that time period.

Dependent Measures

Multiple types of measures were obtained in order to analyze the effectiveness of the intervention package. The primary type of measure that was gathered was the on-task rates for each participant. Academic math worksheets were also collected to assess the impact of the intervention package on academic performance. Consumer satisfaction

feedback concerning the intervention package was also obtained via questionnaires from each participant and the teachers who provided math instruction for them.

On-Task Observations

On-task rates were gathered via direct observation. The on-task observations were done using a response discrepancy format with whole-interval recording. (See Appendix C for a sample observation form.) The observations were conducted in each participant's classroom during a period when the participants were required to be doing independent math seatwork. The researcher followed the behavioral observation format described in *The Tough Kid Tool Box* (Jenson et al., 1995). Each observation was 15 minutes in length and was divided into 90 10-second intervals. During each 10-second interval, the participant was observed along with a same-gender peer. In order to be counted as on-task for an interval, the participant had to be on-task for the entire 10-second interval. If the participant was off-task at any time during the 10-second interval the subject was marked as being off-task for that interval. A participant could only be counted as being off-task once during each interval. If more than one off-task behavior occurred they were ignored until the next 10-second interval. The behaviors that were observed and their corresponding codes were taken from *The Tough Kid Tool Box* (Jenson et al., 1995, p. 213) as follows:

* = *On-Task*: Eye contact with teacher or task and performing the requested task.

T = *Talking Out/Noise*: Inappropriate verbalization or making sounds with object, mouth, or body.

O = *Out of Seat*: Student fully or partially out of assigned seat without teacher permission.

I = *Inactive*: Student not engaged with assigned task and passively waiting, sitting, etc.

N = *Noncompliance*: Breaking a classroom rule or not following teacher directions within 15 seconds.

P = *Play with object*: Manipulating objects without teacher permission

Academic Assignments

Throughout the duration of the study each participant's daily math assignments were collected and copied each time a sample data probe was taken in an attempt to assess the academic accuracy and completion of problems.

Treatment Integrity

The researcher created a self/peer-model video intervention checklist in order to help maintain treatment integrity during the self/peer-model video sessions. (See Appendix E for a copy of the self/peer modeling intervention checklist.) The checklist contained each step that was to be taken by the researcher during each intervention session. Each step was marked off on the checklist as the researcher completed them during the course of each session.

Consumer Satisfaction

Teacher questionnaire. A teacher questionnaire was constructed in order to determine the degree to which the teacher of each participant either liked or disliked the intervention package. (See Appendix B for a copy of the teacher questionnaire). The questionnaire consisted of 24 statements taken from the Behavior Intervention Rating Scale (Elliot & Trueting, 1991), which could be rated on six-point Likert scale that ranged from “strongly agree” to “strongly disagree.” The questionnaire also contained four open-ended questions constructed by the researcher. These questions allowed each teacher to more specifically indicate their thoughts about using the intervention. The teacher of each participant completed the questionnaire on the last day of the intervention phase.

Participant questionnaire. A participant questionnaire was also constructed in order to determine how each participant felt about the intervention package. (See Appendix B for a copy of the participant questionnaire.) The questionnaire included seven items, which could be rated on a six-point Likert scale that ranged from “strongly agree” to “strongly disagree.” The seven items on the questionnaire were based on the items found on the Children’s Intervention Rating Profile (Elliot, 1986). The questionnaire also contains four open-ended questions constructed by the researcher. These questions allowed each participant to more specifically indicate their thoughts about being involved in the intervention. In order to accommodate a younger population and to ensure that the participants fully understood each question, the questionnaire was given on a one-on-one basis to each participant by the researcher on the last day of the intervention phase.

Data Analysis

On-Task Rates

On-task rates were collected via direct observation. The percentage of time each participant was on-task was calculated by taking the number of intervals rated as on-task and dividing that number by the total number of intervals observed. Data were also plotted to allow visual analysis of any patterns in the difference between each participant's baseline on-task rates and their on-task rates during the intervention phase.

Effect Size

A separate effect size was calculated for each participant using the 'no assumptions' approach as presented by Busk and Serlin (1992). Using this model, a separate effect size was obtained for each participant during the intervention by dividing the difference in the baseline and treatment means by the baseline standard deviation. The formula used is as follows:

$$\frac{(\text{Mean of Intervention Phase} - \text{Mean of Baseline Phase})}{\text{Standard Deviation of Baseline Phase}}$$

Cohen (1998) defined a set of conventional standards for interpreting effect size. Using these standards, 0.2 would be considered a small treatment effect, 0.5 would be a medium treatment effect, and a treatment with an effect size of 0.8 or above would be considered to have a large effect.

Percentage of Nonoverlapping Data

Percentage of nonoverlapping data (PND) scores were calculated for each participant in order to provide further information concerning the effectiveness of the

intervention package. The method for calculating PND scores for studies that focus on increasing target behaviors has been described by Olive and Smith (2005). The first step is to identify the highest baseline point. Next, the number of data points observed to be above the highest baseline data point is calculated. Finally, the number of data points above the highest baseline data point is divided by the total number of data points. PND scores over 90 are regarded as very effective. Scores of 70 to 90 are considered questionable, and PND scores below 50 are regarded as ineffective treatments (Scruggs & Mastropieri, 1998).

Academic Performance

After each independent seatwork session that was observed, the participants' math assignments were collected and copied. Math assignments were collected during the baseline, intervention, and follow-up phases of the study. These assignments were gathered in order to observe if any pattern of improvement could be detected.

Consumer Satisfaction

The information gathered from the consumer satisfaction questionnaires was presented in a table format. The questions were listed along with the responses that were given by each participant. A mean rating for each question on the student and teacher questionnaire was reported. Open-ended information was reported in narrative form.

RESULTS

The goal of this research project was to increase the rate of on-task behavior displayed in the classroom by 4 students in the second and third grades by implementing an intervention package that included a self and peer-modeling intervention combined with self-monitoring. Throughout the intervention phase each participant viewed self and peer-modeling video recordings with the researcher. Each video recording showed a peer-model, or the participants themselves, displaying attentive behavior while working on independent seatwork. Throughout the intervention phase, the participants were also involved in a self-monitoring intervention during their independent seatwork time in math. The self-monitoring intervention involved the use of the MotivAider® and a self-monitoring form on which the participants kept track of the amount of time they were on-task and off-task while working independently.

The following pages report the results that were obtained during the implementation of this project. Results are reported for each of the six research questions. Interrater reliability and treatment integrity are also addressed.

Research Hypotheses

Hypothesis 1: “Rates of On-Task Behavior Will be Higher Than Baseline On-Task Rates After Receiving the Package Intervention Than During Baseline”

The data collected during the baseline phase of this study show a substantial gap in the mean on-task rates of behavior between the participants and their peers. The mean baseline rate of on-task behavior for the participants in this study was observed to be 47%. The mean composite rate of on-task behavior for the comparison peers at baseline was 81%. The differences between the participant and peer on-task rates during baseline are illustrated in Figure 1.

During the intervention phase, the mean rate of on-task behavior displayed by the participants rose to 86%. The mean composite rate of on-task behavior for the comparison peers during the intervention phase was 85%. This result indicates that using this intervention effectively closed the attention gap in on-task behavior between the participants and their peers. Participant and peer composite on-task rates during the intervention phase are illustrated in Figure 2. The mean global effect size of the intervention package for the participants was calculated to be 5.60, which indicates that overall the intervention package was very effective in decreasing the participants' off-task behaviors. The percentage of nonoverlapping data (PND) score for each participant in the study was 100. These scores also indicate that the intervention package was very effective for each participant (Scruggs & Mastropieri, 1998).

At baseline, the mean rate of on-task behavior for Participant A was observed to be at 49%. During the intervention phase Participant A's mean rate of on-task behavior rose to 86%. In comparison the mean composite on-task rates for same-gender peers in the

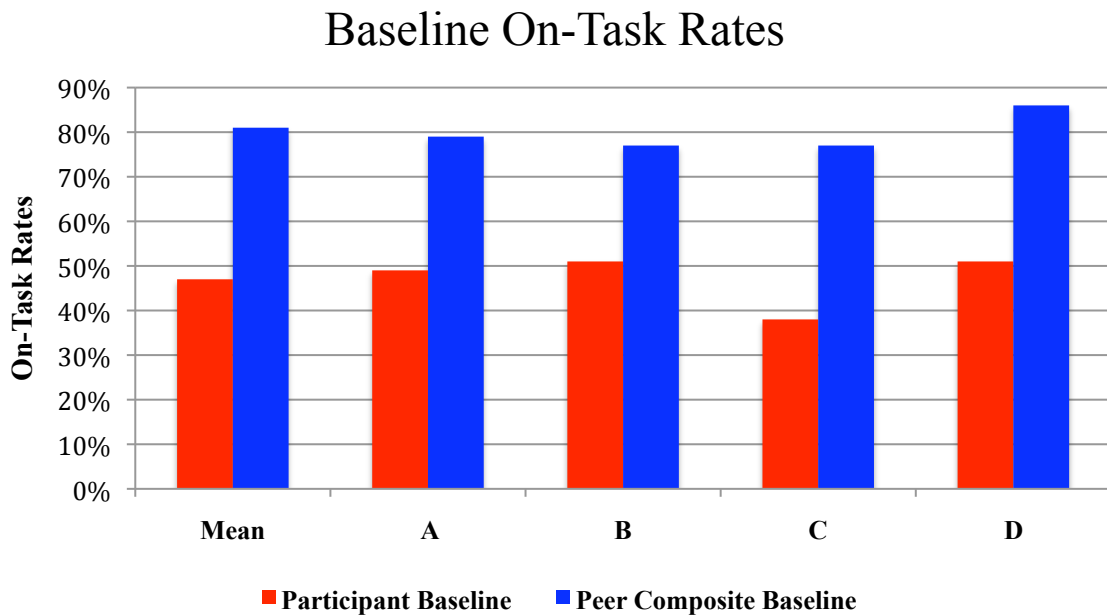


Figure 1. Participant and Peer On-Task Rates During Baseline

same classroom as Participant A were 79% during baseline and 86% during the intervention phase. The effect size of the intervention package for Participant A was calculated to be 6.00.

The mean rate of on-task behavior for Participant B during the baseline phase was observed to be at 51%. During the intervention phase Participant B's mean rate of on-task behavior rose to 84%. In comparison the mean composite on-task rates for same-gender peers in the same classroom as Participant B were 77% during baseline and 83% during the intervention phase. The effect size of the intervention package for Participant B was calculated to be 5.19.

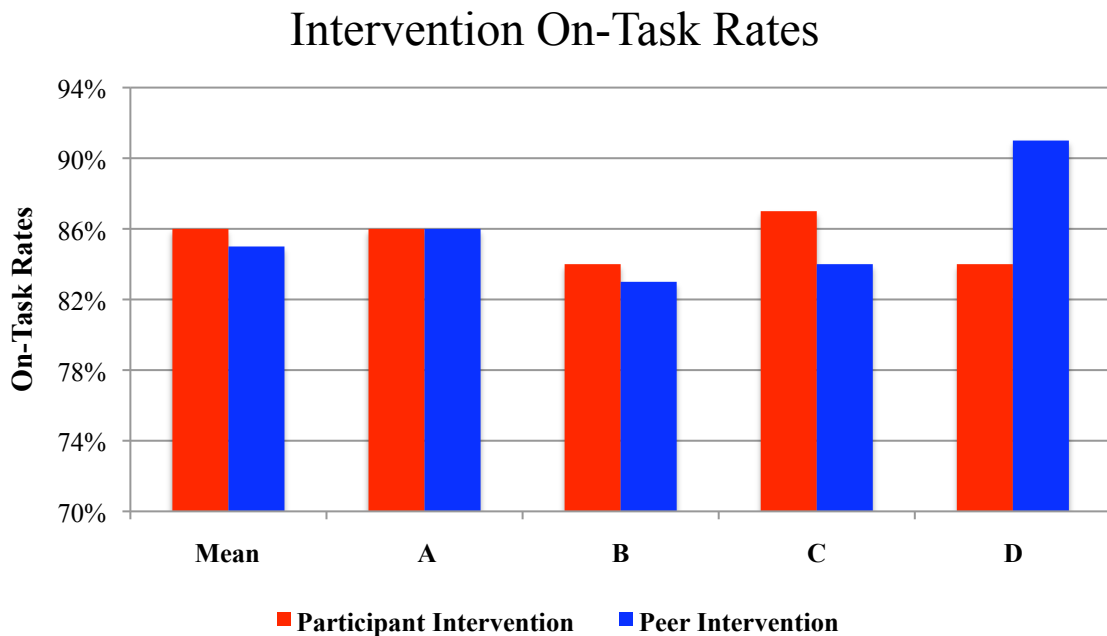


Figure 2. Participant and Peer On-Task Rates During Intervention

At baseline, the mean rate of on-task behavior for Participant C was observed to be at 38%. During the intervention phase Participant C's mean rate of on-task behavior rose to 87%. In comparison the mean composite on-task rates for same-gender peers in the same classroom as Participant C were 77% during baseline and 84% during the intervention phase. The effect size of the intervention package for Participant C was calculated to be 5.29.

The mean rate of on-task behavior for Participant D during the baseline phase was calculated to be at 51%. During the intervention phase Participant D's mean rate of on-task behavior rose to 84%. In comparison the mean composite on-task rates for same-gender peers in the same classroom as Participant D were 86% during baseline and 91% during

the intervention phase. The effect size of the intervention package for Participant D was calculated to be 5.95.

When compared to baseline, the data show that each participant displayed a significant increase in their percentage of on-task behavior while receiving the intervention package. Figure 3 illustrates the changes in participant on-task rates from baseline to intervention. The effect sizes that were calculated from the data collected during the baseline and intervention phases are very large when compared to Cohen's (1989) standard, and indicate that the intervention package was extremely in increasing each participants' on-task behaviors. Based on these data it can be concluded that the participants showed a significant improvement in on-task behavior from baseline to intervention as stated in research hypothesis 1.

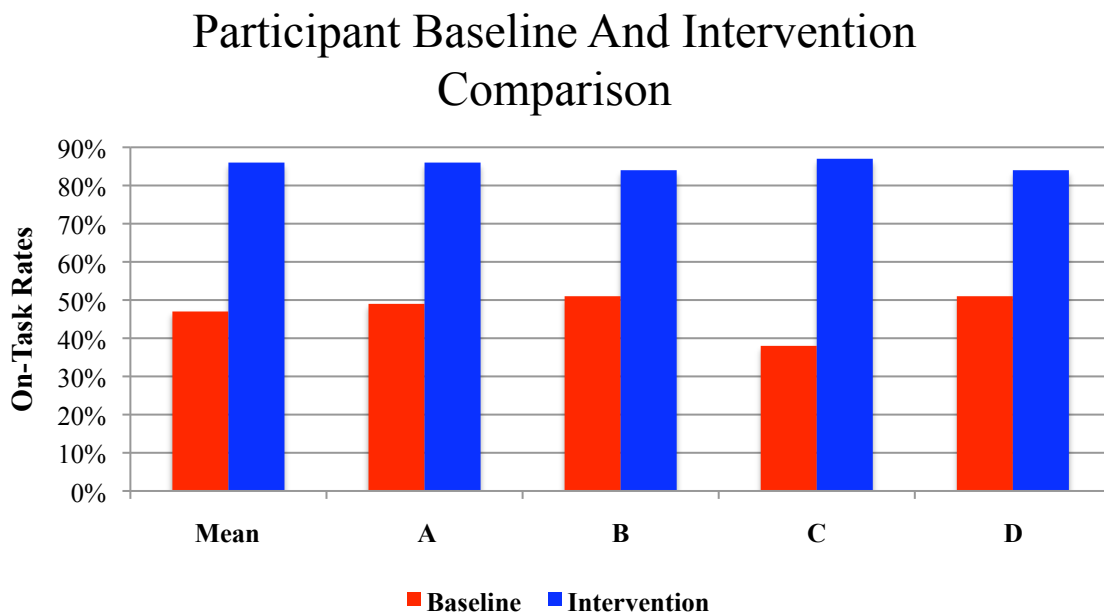


Figure 3. Participant Baseline and Intervention Comparison

Hypothesis 2: “On-Task Rates Will Remain Improved Above Baseline at Follow-Up Observations at Two and Four Weeks When Compared to the Baseline”

Follow up data were collected to assess on-task behavior at a 3-week interval after the intervention was terminated. Follow-up observations were originally planned for 2 and 4 weeks after the intervention phase was completed; however, due to the year-round schedule of the school where the study was conducted this was not possible. The students involved in the study went off-track immediately following the end of the intervention phase and were out of school for the following 3 weeks. Due to these events the follow-up observations were conducted the 1st week each student returned to school. Thus, three follow-up observations were conducted for each participant approximately 3 weeks after the intervention phase was completed.

The mean on-task rate for the participants at 3 weeks follow-up without intervention was 84%. The mean rate of on-task behavior displayed by the participants at 3 weeks follow-up was only slightly lower than their mean rate of on-task behavior of 86% during the intervention phase. The mean rate of on-task behavior displayed by the participants' peers at follow-up was 84%. These data illustrate that overall, the rates of on-task behavior achieved by the participants while receiving the intervention were maintained 3 weeks after the intervention phase was terminated. Figure 4 compares the mean on-task rates for the participants at baseline and at 3 weeks postintervention. Figure 5 shows the on-task rates recorded during each observation period for each participant from baseline through intervention.

At 3 weeks postintervention, Participant A had a mean on-task rate of 86%. His mean rate of on-task behavior at follow-up was found to be exactly the same as his rate

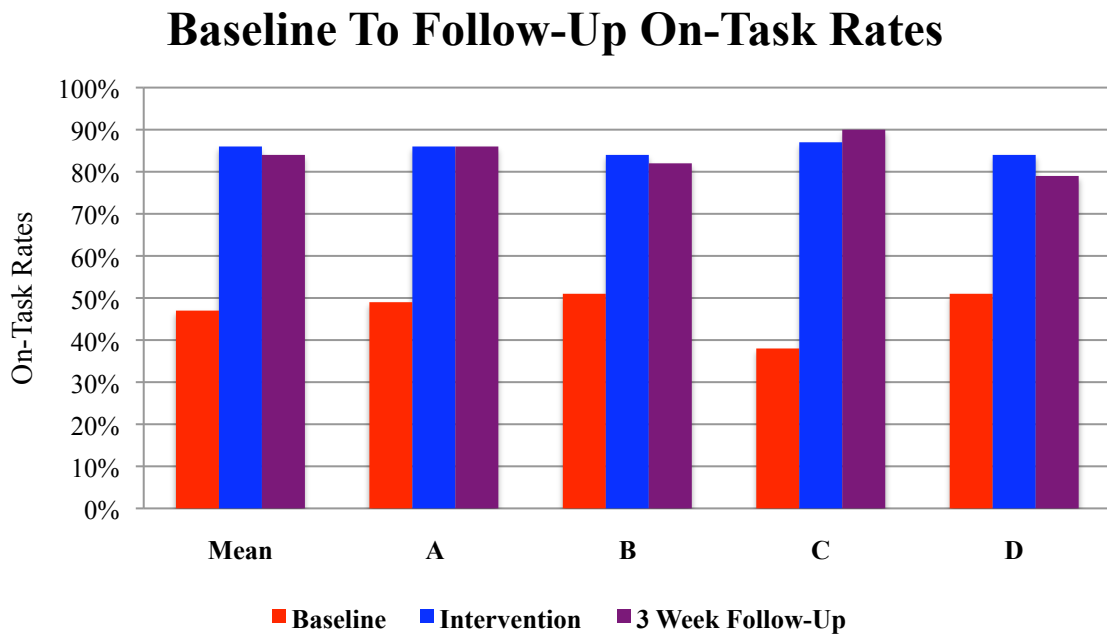


Figure 4. Participant On-Task Rates From Baseline To Follow-Up

Participant On-Task Rates

Baseline And Intervention

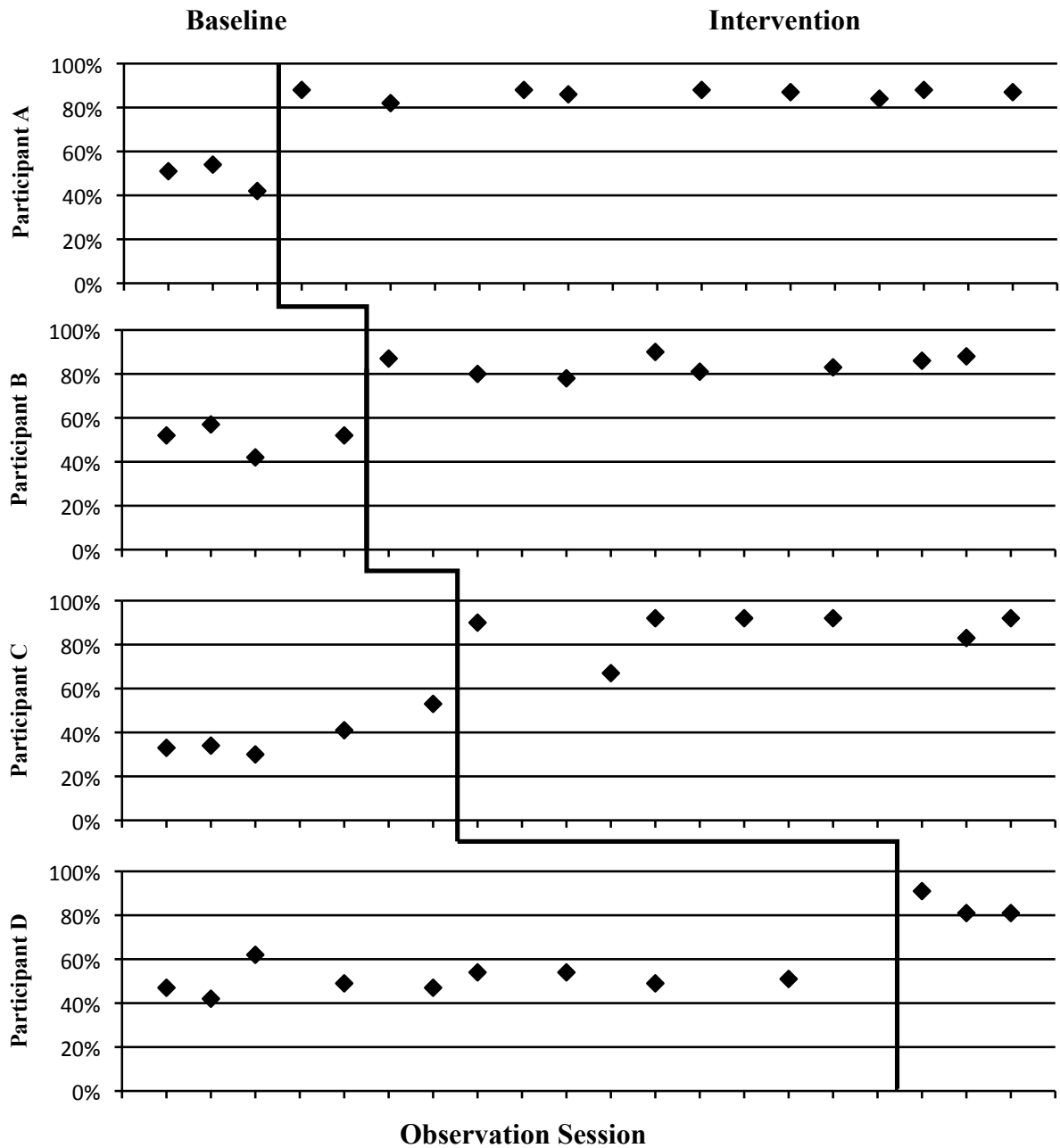


Figure 5. On-Task Rates Recorded During Each Observation Period for Each Participant From Baseline Through Intervention.

of on-task behavior during the intervention phase. These data indicate that the rate of on-task behavior achieved by Participant A during the intervention phase was maintained 3 weeks after the intervention phase. The mean rate of on-task behavior displayed by same-gender peers in Participant A's classroom was 88%.

Participant B had a mean on-task rate of 82% at 3 weeks follow-up. Her mean rate of on-task behavior at follow-up was only slightly lower than her mean rate of on-task behavior of 85% during the intervention phase. These data indicate that the rate of on-task behavior achieved by Participant B during the intervention phase was maintained 3 weeks after the intervention phase. The mean rate of on-task behavior displayed by same-gender peers in Participant B's classroom was 82%.

Participant C had a mean on-task rate of 90% at 3 weeks follow-up. His mean rate of on-task behavior at follow-up was slightly higher than his mean rate of on-task behavior of 87% during the intervention phase. These data indicate that the rate of on-task behavior achieved by Participant C during the intervention phase was maintained 3 weeks after the intervention phase. The mean rate of on-task behavior displayed by same-gender peers in Participant C's classroom was 76%.

Participant D had a mean on-task rate of 79% at 3 weeks follow-up. His mean rate of on-task behavior at follow-up was slightly lower than his mean rate of on-task behavior of 84% during the intervention phase. These data indicate that the rate of on-task behavior achieved by Participant D during the intervention phase was maintained 3 weeks after the intervention phase. The mean rate of on-task behavior displayed by same-gender peers in Participant D's classroom was 89%.

The data gathered during the follow-up phase of the study indicate that on-task rates were significantly higher at 3 weeks postintervention than they were at baseline. The data also show that the participants' rates of on-task behavior did not differ by more than 5% from intervention to follow-up. This indicates that the increases in on-task behavior achieved during the intervention phase were maintained at 3 weeks postintervention. A summary of baseline, intervention, and follow up data are shown on Table 1. Figure 6 and Figure 7 show the daily on-task rates for each participant during each phase of the study.

Table 1
Percentage On-Task

	Participant A	A Peers	Participant B	B Peers	Participant C	C Peers	Participant D	D Peers
Baseline <u>M</u>	0.49	0.79	0.51	0.77	0.38	0.77	0.51	0.86
Intervention <u>M</u>	0.86	0.86	0.84	0.83	0.87	0.84	0.84	0.91
Net % Increase	0.37	N/A	0.33	N/A	0.49	N/A	.33	N/A
Effect Size	6.00	N/A	5.19	N/A	5.29	N/A	5.95	N/A
3-Week f/u <u>M</u>	0.86	0.88	0.82	0.82	0.9	0.76	0.79	0.89

On-Task Behavior From Baseline Through Follow-Up

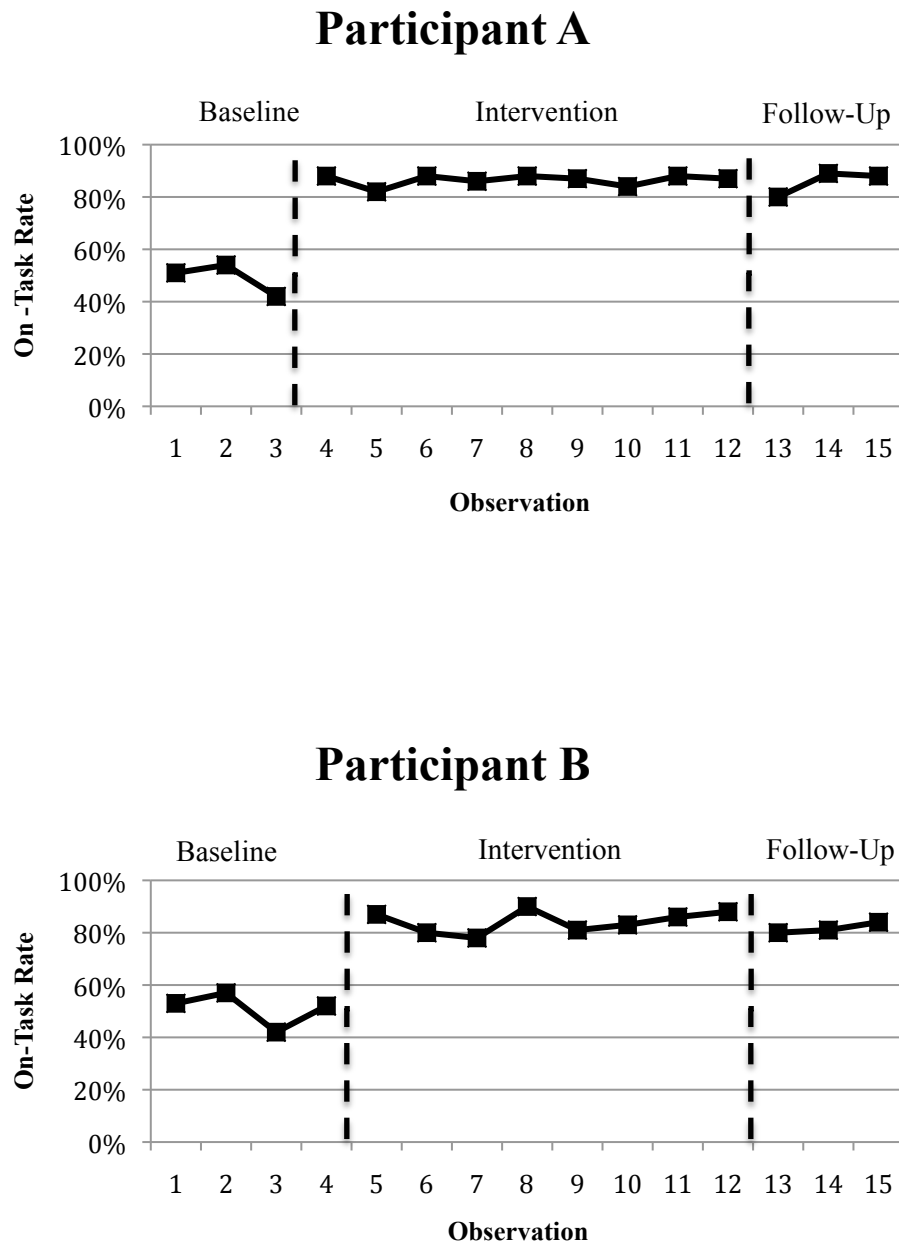


Figure 6. Rates of On-Task Behavior Observed for Participants A and B From Baseline Through Follow-Up.

On-Task Behavior From Baseline Through Follow-Up

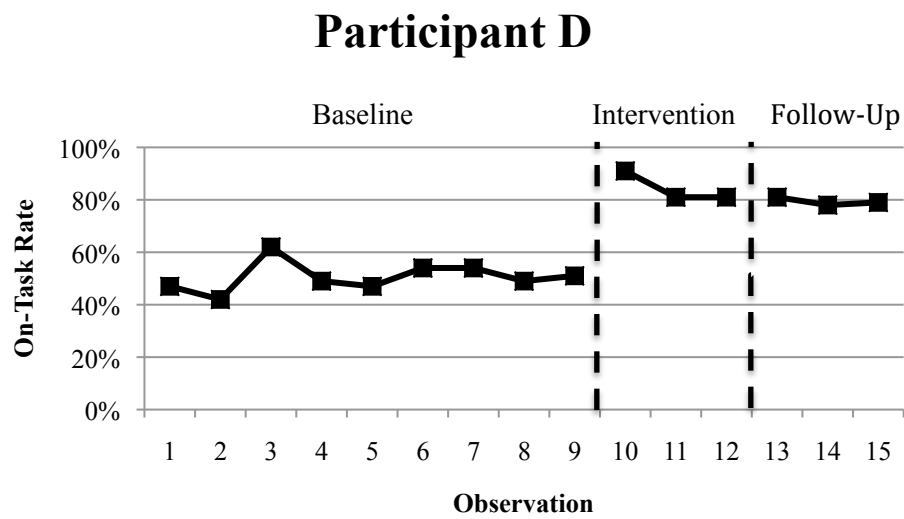
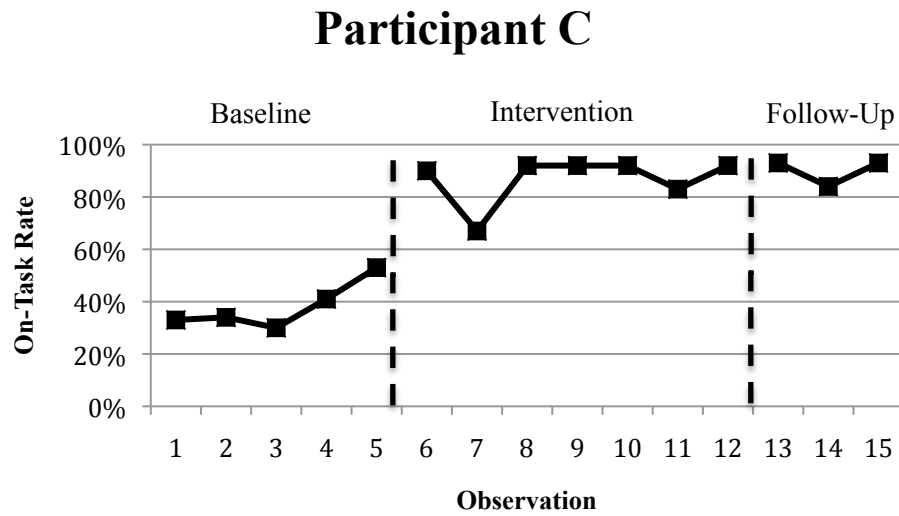


Figure 7. Rates of On-Task Behavior Observed For Participants C and D From Baseline Through Follow-Up.

Hypothesis 3: “Teachers Will Report Above Average Ratings on the Behavior Intervention Rating Scale and That During the Intervention an Improvement was Apparent in the Participant’s On-Task Behavior”

The teachers responsible for teaching math to the participants that were included in this study were asked to fill out a brief questionnaire at the close of the intervention phase. The questionnaire included the 24 statements from the Behavior Intervention Rating Scale (Elliott & Trueting, 1991) for which the teachers circled the best response on a scale of one through six, which ranged from “strongly disagree” to “strongly agree.” (See Appendix B for a copy of the teacher questionnaire.) Table 2 shows the 24 statements and the responses given by each teacher. Ratings are also averaged across participants.

Overall, the teacher responses concerning the intervention package were positive. Only one item received an average score below a four or “slightly agree.” The item was:

18. The intervention improved the child’s behavior to the point that it would noticeably deviate from other classmate’s behavior.

All other items on the teacher questionnaire earned a mean score of 4.5 or higher. These results indicate a positive overall level of satisfaction with the process, effect, and outcome of the intervention package.

The teachers were specifically asked about the effect that the intervention package had on the participants’ off-task behaviors in the classroom by the following items on the questionnaire:

3. The intervention proved effective in changing the child’s problem behavior.

14. This intervention was a good way to handle this child’s behavior problem.

15. Overall, the intervention was beneficial for the child.

Table 2

Teacher Responses on the Behavior Intervention Rating Scale (Elliot & Trueting, 1991)

1= Strongly Disagree 2= Disagree 3= Slightly Disagree
 4= Slightly Agree 5= Agree 6= Strongly Agree

Statement	Teacher A	Teacher B	Teacher C	Teacher D	Mean
1. This was an acceptable intervention for the child's problem behavior.	6	6	6	6	6
2. Most teachers would find this intervention appropriate for behavior problems in addition to the one addressed.	6	6	5	6	5.75
3. The intervention proved effective in changing the child's problem behavior.	5	5	6	4	5
4. I would suggest the use of this intervention to other teachers.	6	6	6	6	6
5. The child's behavior problem was severe enough to warrant use of this intervention.	6	6	6	6	6
6. Most teachers would find this intervention suitable for the behavior problem addressed.	6	6	6	6	6
7. I would be willing to use this in a classroom setting.	6	6	6	6	6
8. The intervention did not result in negative side effects for the child.	6	6	5	6	5.75
9. The intervention would be an appropriate intervention for a variety of children.	6	6	5	6	5.75

Table 2 (continued)

Statement	Teacher A	Teacher B	Teacher C	Teacher D	Mean
10. The intervention is consistent with those I have used in classroom settings.	5	6	5	6	5.5
11. The intervention was a fair way to handle the child's problem behavior.	6	6	6	6	6
12. The intervention is reasonable for the behavior problem addressed.	6	6	6	6	6
13. I like the procedure used in the intervention.	6	6	6	6	6
14. This intervention was a good way to handle the child's behavior problem.	6	6	6	6	6
15. Overall, the intervention was beneficial for the child.	6	6	6	4	5.5
16. The intervention quickly improved the child's behavior.	5	5	5	4	4.75
17. The intervention will produce lasting improvement in the child's behavior.	5	4	5	5	4.75
18. The intervention improved the child's behavior to the point that it would noticeably deviate from other classmates' behavior.	4	2	5	3	3.5
19. Soon after using the intervention, a teacher would notice a positive change in the problem behavior.	6	4	5	4	4.75

Table 2 (continued)

Statement	Teacher A	Teacher B	Teacher C	Teacher D	Mean
20. The child's behavior will remain at an improved level even after the intervention is discontinued.	5	4	5	4	4.5
21. Using the intervention should not only improve the child's problem behavior in the classroom, but also in other settings (e.g., other classrooms, home).	5	4	5	4	4.5
22. When comparing this child with a well behaved peer before and after use of the intervention, the child's and the peer's behaviors are more alike after using the intervention.	6	5	4	4	4.75
23. The intervention produced enough improvement in the child's behavior so the behavior no longer is a problem in the classroom.	5	5	4	4	4.5
24. Other behaviors related to the problem behavior also are likely to be improved by the intervention.	6	5	5	4	5

16. The intervention quickly improved the child's behavior.

The mean score for the items listed above on the teacher questionnaire was 5.3. For each of these items the teachers indicated that they "slightly agreed," "agreed," or "strongly agreed." These ratings indicate that the teachers did notice a positive change in the participants' on-task behavior during the intervention phase of this study.

Overall, the responses given on the teacher questionnaire were above average. More specifically, items that focused on the effect that the intervention package had on the participants' classroom behaviors were given positive ratings. These results indicate that each teacher was able to observe an improvement in the participants' rates on-task behavior as hypothesized in research hypothesis number 3.

Hypothesis 4: "Classroom Teachers Will Report Ratings That are Above Average on the Behavior Intervention Rating Scale Regarding Participation in the Intervention"

Several of the items on the Behavior Intervention Rating Scale (Elliot & Trueting, 1991) are focused on the level of the level of satisfaction experienced by a teacher regarding participation in an intervention. These items include:

4. I would suggest the use of this intervention to other teachers.

7. I would be willing to use this in a classroom setting.

13. I like the procedure used in the intervention.

The mean rating for the items listed above was six, which is equivalent to a rating of "strongly agree." The ratings for these items indicate that the teachers who were involved in the study viewed participation in the intervention very positively.

The questionnaires that each teacher completed also included open-ended questions concerning what they liked and disliked about the intervention package. Participant A's teacher indicated the fact that the "student self-monitors," "viewing other on-task students," and "positivity" were some of the positive aspects of the intervention package. It was also noted that the MotivAider® was "quiet" and "easy to store." The teacher did note that one negative aspect of the intervention was that it caused the student to "rush through one assignment 'guessing' just to finish a page."

Participant B's teacher indicated that the "self-management" aspect of the intervention package was a positive. It was also noted that the MotivAider® was "motivating for the student" and that it "provided a cue for the student that was not teacher based." The teacher did not indicate any dislikes concerning the intervention package.

Participant C's teacher wrote, "I liked that the student was in control of his own behavior." Concerning the use of the MotivAider® it was reported that the device "was not noticeable or a distraction to other students and [the participant] was in charge." The teacher's only dislike concerning the intervention was that it "was used for only a short time period each day."

Participant D's teacher indicated that she specifically liked the self-monitoring component of the intervention. She wrote that she liked the fact that the MotivAider® "reminds students in an unobtrusive way" to remain on-task. She also liked the fact that use of the MotivAider® made it so that the self-monitoring intervention was "not teacher-dependent." The teacher did not indicate any dislikes concerning the intervention package.

Although a few negatives were noted, in general each teacher's comments concerning participation in the intervention package were positive. The comments that

were made reflect the teacher's positive responses to the various items taken from the Behavior Intervention Rating Scale (Elliot & Trueting, 1991) concerning participation in the study. Overall, these positive responses from the teachers strongly support research hypothesis 4.

Hypothesis 5: "Participants Will Report Above Average Ratings on the Children's Intervention Rating Scale Regarding Participation in the Intervention"

Each participant involved in the intervention was asked to fill out a brief questionnaire at the end of the intervention phase of the study. The questionnaire included seven items that were based on the items found on the Children's Intervention Rating Profile (Elliott, 1986) and had been modified by the researcher in order to better fit the purposes of this study. The participants were asked to give their best response to each item on a scale of one through six, which ranged from "strongly disagree" to "strongly agree." Table 3 shows the seven statements on the participant questionnaire and the response given by each participant. Ratings are also averaged across participants.

The participants' responses to the items on the questionnaire were positive. Each participant indicated that they did not believe that being involved in the intervention was hard or unfair. They also indicated that involvement in the intervention did not cause problems with their friends. The participants' response pattern also shows that they believed that the intervention helped them to stay focused and to do better school work.

The participants did report a difference of opinion on the following item:

4. There are better ways to help me to stay focused on my work.

Table 3

Participant Questionnaire Responses

1= Strongly Disagree 2= Disagree 3= Slightly Disagree
4= Slightly Agree 5= Agree 6= Strongly Agree

Statement	Subject A	Subject B	Subject C	Subject D	Mean
1. Watching the video and using the MotivAider seemed fair.	6	6	6	5	5.75
2. Watching the video and using the MotivAider seemed hard.	1	2	1	1	1.25
3. Watching the video and using the MotivAider caused problems with my friends.	1	1	1	2	1.25
4. There are better ways to help me to stay focused on my work.	1	6	3	1	2.75
5. This would be a good program to use with other kids.	6	6	6	6	6
6. I like this program to help me stay focused.	6	6	6	5	5.75
7. I think the videos and the MotivAider helped me to do better in school.	6	6	6	5	5.75

On the item listed above, Participants A and D marked a 1, indicating that they “strongly disagreed” with the statement and Participant C marked a 3 signifying that he “slightly disagreed” with the statement. Participant B rated this item as a 6, indicating that she “strongly agreed” with the statement item.

The questionnaires that each participant completed also included open-ended questions about what they liked and disliked about the intervention package. In response to these items Participant A noted that what he liked about the MotivAider® was that “it buzzes.” He also stated that the MotivAider® “helps me study.” Concerning what he liked about the program in general, Participant A said, “It was fun watching videos.” The participant did not indicate any negative aspects about participation in the study.

In response to items concerning what she liked about the intervention package Participant B remarked, “I really loved the MotivAider®” and that the MotivAider® “helped me stay on-task and focus.” Participant B noted that one negative aspect of the intervention was that, “Sometimes the videos were boring, sometimes I liked them.”

In response to the items concerning the MotivAider®, Participant C indicated that he liked it because, “It keeps me doing things.” When asked what he liked about the program as a whole, Participant C mentioned watching the videos and said, “The videos are okay.” The participant did not indicate any negative aspects about participation in the study.

Concerning the MotivAider®, Participant D said, “I liked when you explained how to do it.” He noted that one negative component about the MotivAider® was that, “Sometimes it buzzes too much.” In response to what he liked about the intervention program as a whole, Participant D said, “I think the videos are cool.”

Overall, the participants' ratings concerning their experience with the intervention package were positive. Although a few negatives aspects were noted, the comments that were made on the open-ended portion of the questionnaire were also positive. This response pattern is supportive of research hypothesis 5.

Hypothesis 6: "The Participants Academic Accuracy and Completion of Problems Will Increase on Math Worksheets While They are Participating in the Intervention"

Several factors occurred during the course of this study, which made it difficult to use the math assignments that were collected to assess whether or not the intervention package had an effect on the participants' academic performance. The first factor was that the amount of time that each participant was given to do his or her independent math work was not constant throughout the study. The amount of time allotted to independent math seatwork varied day to day. The independent seatwork completed by the participants was sometimes started before the on-task observations began and completed well after the on-task observations were completed. This inconsistency makes it difficult to assess whether or not the number of problems that the participants completed increased during the study.

The second factor is that the type of assignments done during independent seatwork time differed. At times the participants worked on traditional problem solving worksheets, which were easy to quantify. At other times they completed worksheets that included traditional components as well as coloring, cutting, or pasting which could not be quantified. This made it difficult to document whether or not the intervention package had increased the participants' academic accuracy.

In an attempt to get a basic idea of the effect that the intervention package had on each student's academic performance, the researcher asked the teacher of each participant to write a statement concerning whether or not they were able to notice any academic improvement in their student during the course of the intervention. These statements were written on the back of the teacher questionnaire. In response to this, Participant A's teacher stated that "yes" she had noticed academic improvement. She went on to say that during the intervention phase Participant A had, "tried a lot harder by following the written directions better which improved some scores. He also had a longer attention span which helped him complete more work."

Responding to the question of whether or not she had noticed any academic improvement, Participant B's teacher wrote, "This student has good academic skills, it's attention and taking time to understand the task instead of hurrying through. This intervention did help her to stay on-task for a more sustained period of time and complete more."

Concerning Participant C's academic progress during the intervention his teacher wrote, "I did notice that [he] was much more attentive and on-task during this time period which definitely resulted in a higher level of work completion. I think it also helped [him] to concentrate better to complete his work more accurately. [He] has struggled with work completion and he definitely was able to complete more work. I also think this helped him feel more success and better about himself."

Participant D only received three full sessions of the intervention, which makes increases in his academic performance even more difficult to detect when compared to the other participants. In reference to his academic performance during the intervention,

Participant D's teacher wrote, "Hard to say because it was such a short time, but for [him], anything that helps him focus and attend I think would help his skills as well."

In general, the teacher's reported that they felt that the intervention package had helped to increase their student's capacity to do more work in the classroom. However, throughout the study there were inconsistencies in the variables needed to calculate increases in the amount and accuracy of work completed by the participants. Because of this, the researcher was not able to effectively document whether or not the participants' academic abilities had increased during the intervention. Therefore, research hypothesis number 6 could not be confirmed.

Reliability

On-Task Observations

In order to assure interrater agreement, the researcher conducted an observation training session with each of the two volunteer raters individually. Practice observations were repeated until each of the raters felt comfortable with the observation procedure and until a minimum of .80 interrater reliability was achieved between the researcher and the two additional raters using Cohen's Kappa. During each session the researcher was able to establish interrater reliability estimates higher than .80 with each rater for multiple observations. Tables 4 and 5 show the reliability estimates for each training session. The formula used for Cohen's Kappa is as follows:

$$k = (Po - Pc) / (1 - Pc)$$

where: Po = the proportion of agreement between observers of occurrence and nonoccurrence

Table 4

Interrater Reliability During Training Sessions for Raters #1 and #2

Observation	Cohen's Kappa
1	.36
2	.78
3	.88
4	.73
5	.85
6	.90

Table 5

Interrater Reliability During Training Sessions for Raters #1 and #3

Observation	Cohen's Kappa
1	.89
2	.92
3	.90

P_c = the proportion of expected agreement based on chance

In order to establish rater reliability during the study, the researcher and one other rater collected data for the same participant at the same time at least once while collecting baseline and follow-up data and twice while collecting the intervention data for Participants A, B and C. For participant D, the researcher and one other rater conducted observations at the same time twice during baseline, and once while collecting intervention and follow-up data. A reliability coefficient of .82 or higher was achieved between the researcher and the volunteer raters during each of these observations. Table 6 shows the reliability estimates for these observations.

Treatment Integrity

A Self/Peer-Model Video Intervention Checklist (See Appendix E) was used in order to assure that the researcher followed the same intervention protocol during each session. After each intervention session was completed the researcher reviewed the checklist and marked off each of the steps that were completed. A review of the intervention checklist reveals that all steps were completed for each participant during each session for 100% treatment integrity.

Table 6
Interrater Reliability During Each Phase of the Study

Observation	Subject A	Subject B	Subject C	Subject D
Baseline 1	.91	.95	.92	.93
Baseline 2	N/A	N/A	N/A	.87
Intervention 1	.87	1.0	.92	.81
Intervention 2	.94	.96	.82	N/A
Follow-Up	.88	.96	.91	.96

DISCUSSION

Summary and Conclusions

Research Questions

The majority of the research hypotheses that were stated for this study were affirmed. The first research hypothesis asserted that rates of on-task behavior would be higher after receiving the intervention package than during baseline. On-task behaviors for the participants in this study increased from a mean of 47% of the intervals observed during the baseline condition to a mean of 86% of the intervals observed during the intervention. Each participant experienced a rapid increase in their level of on-task behavior that coincided with their receipt of the treatment condition.

The second research hypothesis was that the participants' on-task rates would remain improved above baseline at follow-up observations at 2 and 4 weeks when compared to baseline. The data that were collected shows that the participants displayed on-task behaviors for 47% of the intervals observed during the baseline condition. The data collected at 3 weeks follow-up indicates that the subjects displayed on-task behaviors for 84% of the intervals observed. This result clearly indicates that the improvements in rates of on-task behaviors displayed by the participants 3 weeks after treatment was maintained.

The third research hypothesis stated that the teachers would report above average ratings on the Behavior Intervention Scale and that during the intervention an improvement

was apparent in the participants' on-task behavior. The teacher responses to the 24 statements on the Teacher Questionnaire that were taken from the Behavior Intervention Rating Scale (Elliot & Trueting, 1991) were overwhelmingly positive. More specifically, items that focused on the effect that the intervention package had on the participants' classroom behaviors were given positive ratings. This indicates that each teacher was able to observe an improvement in the participants' on-task behavior. The responses given on the teacher questionnaire to items that focused on the level of satisfaction regarding participation in the intervention were also positive. This outcome supports the fourth research hypothesis, which stated that the classroom teachers would report rating that are above average on the Behavior Intervention Scale regarding participation in the intervention.

The fifth research hypothesis stated that the participants would report above average ratings on the Children's Intervention Rating Scale regarding participation in the intervention. The questionnaire that the participants completed at the end of the study included seven items that were based on those found on Children's Intervention Rating Scale (Elliot, 1986). The researcher modified the items in order to better fit the purposes of the study. The participants' responses to the items on the questionnaire were positive. Each participant indicated that they did not believe that being involved in the intervention was hard or unfair. The participants' response pattern also showed that they believed the intervention helped them to stay focused and to do better work in the classroom.

The last research hypothesis stated that the participants' academic accuracy and completion of problems would increase on math worksheets while participating in the intervention. Teacher report indicated that they believed that the participants' academic

performance had improved during the course of the intervention. However, two factors occurred during the course of this study that made it difficult to use the math assignments that were collected to affirm the last hypothesis. The first factor was that the amount of time that each participant was given to do his or her independent math work was not constant throughout the study. The second factor was that the type of assignment done during independent seat time differed day to day. At times the participants worked on traditional problem solving worksheets whereas at other times they were given worksheets with traditional components as well as coloring, cutting, or pasting which could not be quantified. Due to these limitations, the researcher was unable to effectively document whether or not the participants' academic abilities had increased during the intervention.

Study Comparisons

Self-Monitoring

The use of the intervention package compares favorably to studies that have used only self-monitoring as a means to decrease off-task behavior. Similar to the studies conducted by Mathes and Bender (1997), Amato-Zech et al. (2006), and Harris et al. (2005), the intervention package effectively decreased rates of off-task behavior in students who had a previous diagnosis of ADHD, were receiving pharmacological intervention, or simply displayed high rates of off-task behavior in the classroom. Similar to the Amato-Zech (2006) study, the intervention package in the current study received high acceptability ratings from both teachers and students.

Amato-Zech et al. (2006) used a self-monitoring method that was very similar to that used in the intervention package used in this study. As part of the treatment, the

MotivAider® was used as a self-monitoring prompt to increase on-task behaviors with three students in a special education classroom. The self-monitoring sessions were conducted while the participants were involved in writing instruction and independent writing activities. The results of the study indicated a steady increase in on-task behavior from 55% at baseline to more than 90% of the intervals observed during the treatment phase. The self-monitoring intervention used by Amato-Zech et al. (2006) proved to be very effective; however, the results were not as immediately dramatic as the results found in the current study, which had the added components of self and peer-modeling.

Although follow-up data were not provided by Amato-Zech (2006), Legge et al. (2010) conducted a similar study in which follow-up data were provided. In this study the MotivAider® was used as a self-monitoring prompt to increase on-task rates in children with autism and other disabilities. The results of the study indicated that the rates of on-task behavior achieved by the participants were maintained 3 weeks after the intervention was terminated. These results are also comparable to the current study where the participants' rates of on-task behavior did not differ significantly at 3 weeks post-intervention from those displayed during the intervention phase.

Self and Peer Modeling

The effectiveness of the intervention package to increase on-task behavior that was demonstrated in this study is similar to findings in other studies that involved video modeling. Studies involving video modeling as a key component conducted by Kehle et al. (1986), Clare et al. (2000), and Richards (2002) each displayed immediate and significant increases in on-task behavior similar to those found in the current study. Like

previous studies that have used video modeling, the package intervention in this study proved effective in special education (Kehle et al., 1986) and regular education settings (Possell et al., 1999). A common theme displayed by the previously reviewed video modeling studies was that the rates of on-task behavior achieved during treatment were maintained post-treatment. These findings are also consistent with the results of the current study where students maintained their gains in on-task behavior at 3 weeks post-intervention.

The manner in which the self-modeling video treatment sessions were conducted by Clare et al. (2000) are very similar to the self and peer modeling procedures in the current study. In the Clare et al. study, the participants watched five self-modeling videos twice each, over 3 weeks. Each video was approximately 5 minutes in length. Each participant watched the videos one-on-one with the researcher. During each video session, the researcher followed a conversational protocol. The results of the Clare et al. study were positive. Furthermore, social validity data collected at the end of the study indicated that both teachers and participants were satisfied with the both the procedure and the results of the intervention. These results are very similar to those found in the current study both in relation to growth in on-task performance and the positive reception of the intervention by teachers and participants.

Combined Interventions

The author is not aware of another study that has used an intervention package, which includes the use self-modeling, peer-modeling, and self-monitoring simultaneously for each participant. However, as described previously, Clare (1992) used a similar

package intervention. Clare used self-modeling and peer-modeling separately with two different groups of subjects to increase rates of on-task behavior over a period of 3 weeks. During the last 5 days of the study, a self-monitoring intervention was added to the treatment condition for each group.

The effectiveness of the interventions used for both groups of participants in the Clare study (1992) was similar to the current study in that it was significant and immediate. The participants in the peer-modeling condition had rates of on-task behavior that rose from 32% of the intervals observed at baseline to 88% during treatment. The participants in the self-modeling condition had rates of on-task behavior that rose from 33% of the intervals observed at baseline to 86% of the intervals observed during treatment. The addition of the self-monitoring intervention in the Clare (1992) study did slightly increase rates of on-task behavior compared to using only self or peer-modeling treatments. Like the current study, consumer satisfaction data indicated that participants and teachers involved in the study were pleased with the procedures used to implement the interventions.

Contributing Factors

The success of the intervention package to increase on-task performance is not surprising given the previous research in self-monitoring, self-modeling, and peer-modeling interventions described above. Each of these interventions has been proven as a successful intervention for increasing on-task behavior in the classroom (Dorwick, 1999; Harris et al., 2005; Richards et al., 2010). Because this study used self-monitoring, self-modeling, and peer-modeling simultaneously, it is difficult to know the exact cause or

causes of the rapid increases in on-task behavior displayed by each participant. Although exact causes cannot be listed, several factors may have contributed to the success of the intervention package.

As previously mentioned, the intervention package has a strong self-monitoring and recording component. In *The Tough Kid Toolbox*, Jenson, Rhode, and Reavis (1995) note that, the very act of marking down and keeping track of a target behavior will often by itself change how often the behavior occurs. Throughout the intervention phase, each participant was responsible for assessing and marking down their own rates of on-task and off-task behavior each time they received a prompt from the MotivAider®. The behavioral self-evaluations were then recorded by the participants on a form that had been placed on their desk. When an individual collects data concerning their own behavioral tendencies, their unconscious or impulsive behavioral patterns are interrupted and temporarily change. This behavioral interruption is a phenomenon called reactivity (Reavis et al., 1996). Reactivity effectively changes the target behavior that is being self-monitored and provides a window of opportunity to consciously change a behavior (Reavis et al., 1996). Thus, each time the participants self-monitored their own on-task and off-task behaviors their unconscious or impulsive behavioral patterns were temporarily interrupted. This momentary interruption then provided them with the opportunity to consciously choose more desirable behaviors such as those viewed on the video modeling recordings.

Another factor that may have contributed to the success of the intervention package is an increased sense of self-efficacy provided by the video modeling interventions. According to Bandura (1997), self-efficacy is simply the sense or belief that one can succeed. In summarizing some of Bandura's (1982, 1986) works concerning self-efficacy,

Schunk and Hanson (1989) noted that an individual's sense of self-efficacy influences their choice of activity, the amount of effort they are willing to expended, their level of persistence, and task accomplishments. Observing similar models (Schunk, 1987) and or oneself (Schunk & Hanson, 1989) performing a targeted task successfully can increase an individual's sense of self-efficacy. A strong sense of self-efficacy is an important factor in promoting academic achievement (Buggey, 2007). In the current study, the participants watched same age, same gender peers display appropriate on-task behavior in the classroom while working on independent seatwork. They also observed themselves displaying these same behaviors in their respective classrooms. These observations could have raised the participant's sense of self-efficacy thus raising their beliefs that they could display the modeled behavior in the classroom.

A concept closely related to self-efficacy is feedforward. The concept behind feedforward is that an individual can learn through observing successes they have not yet experienced. This is in contrast to the term "feedback" where an individual learns from past performances (Dorwick, Kim-Rupnow, & Power, 2006). Feedforward comprises target skills that an individual is able to display, except in applications of mental rehearsal (Dorwick, 1999). In a brief overview of some the research conducted which involved video feedforward, Dorwick et al. (2006) noted that the technique has been shown to be an effective tool for helping individuals acquire physical skills, social skills, and positive classroom behavior. As described previously, in a self-modeling intervention, video recordings can be edited in such a way that an individual appears to be displaying on-task behaviors in the classroom setting that is beyond his or her present functioning (Buggey, 2007).

The participants in this study each displayed high rates of off-task behavior in the classroom setting. Their mean rate of on-task behavior at baseline was observed to be at 47% indicating that it was very difficult for them to remain on-task in the classroom setting. It could be argued that the participants did not show the ability to remain focused for the amount of time necessary to be academically successful. The self-modeling videos that were shown to each participant as part of the intervention package were edited to show levels of on-task behavior that were beyond their current level of functioning. The recordings showed each participant images of the positive future behavioral performance needed to become successful in the classroom environment, thus providing feedforward self-modeling. A benefit of this type of modeling is that the participants are given video evidence that they have the capability to display the targeted behaviors, thus increasing their sense of self-efficacy.

Kehle et al. (2002) postulated that repeatedly viewing and edited self-modeling video that shows an individual only displaying desired behaviors may actually modify the individual's memory. While an individual watches an edited self-modeling video, they may create a false memory that they have previously replicated the rates of behavior depicted in the video. The individual may come to believe that their behavioral functioning in the past is comparable to that which they have viewed on the self-modeling video. These "false" memories may then bolster the individual's sense of self-efficacy to the extent that they come to believe that they are capable of similar behavioral performance in the future (Kehle, Bray, Margiano, Theodore, & Zhou, 2002). As part of the intervention package used in the current study, two self-modeling videos were made for each participant. These videos were repeatedly viewed over the course of the treatment phase. This repeated

viewing could have led the participants to believe that they had displayed high rates of on-task behaviors in the past and thus were capable of doing the same in the present.

Limitations

As has been described previously, a strength of the current study is that it utilizes a package of three research-based techniques to increase rates of on-task behavior; however, it also causes certain limitations in interpreting study results. Because the intervention package used three separate interventions simultaneously, it is difficult to determine which of the interventions was most effective. It is also difficult to determine whether or not using multiple interventions had an additive effect in increasing rates of on-task behavior versus using only one of the intervention techniques.

The findings in this study are also limited by the small sample size. Only 4 subjects in the second and third grades took part in the intervention package. The small sample size calls into questions the generalizability of these results to other subjects or age groups. Replication and further study would be needed before inferences or generalizations can be made.

Another possible limitation could be the fact that the researcher was one of the primary observers throughout each phase of the study. Due to this fact, reactivity on the part of the participants to the researcher's presence could have occurred during the intervention and follow-up phases. Precautions were taken to avoid reactive results throughout the study. These precautions included the use of additional observers and the use of the multiple probes design.

Future Research

Upon examining the results of the present study, several possibilities come to mind when considering future directions for research. The central dependent variable reported in this study was the percentage of on-task behavior for the participants during independent seatwork activities in math. The results of the present study suggest that the use of the intervention package was successful in increasing on-task behavior. Consumer feedback from some of the teachers indicated that they would have liked to use the intervention package during other classroom activities. A suggested course for additional research would be to track the intervention's ability to increase on-task behavior during various classroom activities such as reading and writing activities.

The present study indicates that use of the intervention package increased the participants' on-task behavior. However, the study was not able to confirm the intervention package's effect on academic performance. This was due to the fact that the participants in the current study worked on various types of independent math seatwork during the observation probes and that they were given varying amounts of time to complete their assignments. A suggested course in designing additional research would be to include the use of a standard set of math worksheets for all participants. Additionally a standard amount of time should be given for completion of the worksheets. This would allow for a more concrete interpretation of the effects of the intervention package on academic accuracy and completion of problems.

The present study uses an intervention package, which includes the simultaneous use of three different types of interventions: self-modeling, peer-modeling, and self-monitoring. It is unclear which of these interventions was most effective in increasing and

maintaining the participants' on-task behavior. A suggested direction in designing additional research would be to compare the effectiveness of the self or peer-modeling interventions to increase on-task behavior with that of self-monitoring. Using two separate groups of participants, one that receives the self/peer modeling procedures and one that uses the self-monitoring intervention, could serve to clarify which intervention was most effective. Another alternative would be to alternate the interventions throughout the study at designed intervals.

It is also possible that the simultaneous use of these interventions in the current study had an additive effect, which was greater than the use of the interventions individually. Future research is needed to clarify the effects of modeling and monitoring procedures on rates of on-task behavior alone and in combination. A suggested course in designing future research would be to compare the on-task rates of participants who were receiving the intervention package to participants who were only receiving a self-modeling, peer-modeling, or self-monitoring intervention.

School psychologists are often consulted by teachers in regard to off-task behavior displayed by multiple students in their classrooms. The intervention package described in the present study is relatively simple, inexpensive, and requires little time to implement. Another direction for future study would to pre assemble the intervention package with the necessary materials, videos, and instructions, and make it available school psychologists and other school professionals. Feedback and data obtained by these professionals could then be obtained and compared to the current study to see if similar results could be obtained.

APPENDIX A

CONSENT LETTERS

Parental Permission for Initial Observation

Dear Parent:

Purpose: The purpose of this study is to assist children to increase their attention spans in relation to their academic work.

Procedure: I would like permission for trained graduate students or school professionals to observe in your child's class. These persons will be observing and recording the percentage of time spent paying attention to academic work. Every effort will be made during the observation to not set any child apart from the other students. The children will know that someone is visiting their class, but will not know that any child is being observed specifically. After observing your child, you will be contacted to further explain the research project and see if you would like your child to participate, or given other information or options.

Duration: Observations will be done during regular school hours while the students are engaged in academic work. Each observation is recorded for 15 minutes, and a total of three observations are needed from three different days.

Confidentiality: Only the child's first name will be recorded on the observation form. Observation forms of students who do not participate in the study will be destroyed. Methods for maintain confidentiality of students who do go on to participate in the study will be communicated to you prior to you making a decision regarding being included in the study.

Risk/Benefits: Potential risks involved in class observation include disruption to the class and embarrassment or self-consciousness at having someone watch the class. Potential benefits include the opportunity to participate in a research project to help increase attentiveness to schoolwork. Only a limited number of students will be able to participate in this project. Parents of students identified as having a significant problem attending to their work who do not participate in the study will be given the option, at parent request, of having the researcher provide consultation to the parents or teacher, and/or making a referral to the school psychologist for further assessment.

Withdrawal: After giving initial consent, consent can be withdrawn at any time by sending a written note to the child's teacher asking that no further observations be done on your child, and/or calling me at 801-567-8208. If you withdraw consent, any observation forms that have already been filled out on your child will be destroyed immediately.

Person to Contact: If you have questions, complaints or concerns about this study, you can contact Brian King at 801-567-8208. If you feel you have been harmed as a result of participation, please call my faculty advisor Dr. William R. Jenson at 801-581-7148. If Dr. Jenson is unavailable please leave a message and your call will be returned as soon as possible.

Institutional Review Board: Contact the Institutional Review Board (IRB) if you have questions regarding your child's rights as a research participant. Also, contact the IRB if you have questions, complaints or concerns which you do not feel you can discuss with

the investigator. The University of Utah IRB may be reached by phone at (801) 581-3655 or by e-mail at irb@hsc.utah.edu.

Research Participant Advocate: You may also contact the Research Participant Advocate (RPA) by phone at (801) 581-3803 or by email at participant.advocate@hsc.utah.edu.

It is up to you to decide whether to allow your child to take part in this study. Refusal to allow your child to participate or the decision to withdraw your child from this research will involve no penalty or loss of benefits to which your child is otherwise entitled. This will not affect your or your child's relationship with the investigator. There are no costs or compensation for study participation.

Your permission to observe your child in class will be greatly appreciated. I hope that the study will prove helpful for many children.
Sincerely,

Brian King
Graduate Student in Educational Psychology
University of Utah

CONSENT:

By signing this consent form, I confirm I have read the information in this parental permission form and have had the opportunity to ask questions. I will be given a signed copy of this parental permission form. I voluntarily agree to allow my child to take part in this study.

Child's Name

Parent/Guardian's Name

Parent/Guardian's Signature

Date

Relationship to Child

Name of Researcher or Staff

Signature of Researcher or Staff

Date

Parent Consent for Study Participation

Background

The purpose of this study is to help students increase the percentage of time they spend focused on their academic work. The study will involve having children watch a short video of other children modeling sustained attention on school work. The study also involves children being recorded on a mini-dv recorder and later watching a short video of the time they spend focused on academic behavior. Participants in this study will also be given a small device called a MotivAider which the child wears while doing academic work. The device is about the size of a beeper and silently vibrates at random to remind the child to remain focused on their school work. The MotivAider is only used during math while the child is doing independent seat work. The goal is to increase the child's attention to his/her work by having several different peers model this behavior ,being able to see themselves model the behavior via video, as well as through self- monitoring their own behavior.

Study Procedure

Participating in the study would include the following: 1) continued classroom observations, 2) filming your child in order to make a video of the his/her positive behaviors, 3) taking your child to a quiet room to watch a video recording of approximately five minutes, 4) receiving coaching, encouragement, and reinforcement from me, 5) your child wearing the MotivAider during work time in class and monitoring their own ability to remain focused on academic work, 6) making copies of your child's math worksheets, 7) filling out a brief questionnaire about being in the study, and 8) having the classroom teacher fill out a brief questionnaire after the intervention. You may preview these questionnaires if you wish.

Video tape watching and interactions with the examiner will involve your child being absent from the classroom for about 15 minutes a day, four times a week for approximately 3 weeks. During this time the child will also use the MotivAider in class while doing independent seat work in math. Approximately one week later the child and teacher will be asked to fill out brief questionnaires about the study. This should take about 10 minutes. The child will be observed in the classroom multiple times before and during the weeks that he/she is watching the modeling videos. Follow-up observations will be taken two and four weeks after viewing the last video segment.

Risks

Participation in this study is completely optional, and at your own discretion. If you think you would like your child to participate, I would appreciate it if you would discuss it with him/her and include him/her in making this decision. The major disadvantage is your child feeling singled out as being inattentive or disruptive. Your child may also feel uncomfortable being removed from the classroom.

Benefits

Possible benefits from participating in the study include focusing more on school work, which could in turn help them feel better about themselves and school, as well as the possibility of increasing his academic performance.

Confidentiality

Observation forms will only contain the child's first name, written in pencil. After the study is completed, data will be analyzed and each child will be assigned a letter name such as Child A or Child B, etc. Names on the original observation recording forms will be changed to the assigned letter name, and children will only be referred to by their assigned letter name. Your child's personal video recording will only be viewed by members of the research team and your child. After the study each child's video will be destroyed. Except for the original consent forms; no documents will be kept that contain your child's name. Consent will be kept by the researcher in a locked secure file at his office.

Person to Contact

If you have questions, complaints or concerns about this study, you can contact Brian King at 801-567-8208. If you feel you have been harmed as a result of participation, please call my faculty advisor Dr. William R. Jenson at 801-581-7148. If Dr. Jenson is unavailable please leave a message and your call will be returned as soon as possible.

Institutional Review Board: Contact the Institutional Review Board (IRB) if you have questions regarding your rights as a research participant. Also, contact the IRB if you have questions, complaints or concerns which you do not feel you can discuss with the investigator. The University of Utah IRB may be reached by phone at (801) 581-3655 or by e-mail at irb@hsc.utah.edu.

Research Participant Advocate: You may also contact the Research Participant Advocate (RPA) by phone at (801) 581-3803 or by email at participant.advocate@hsc.utah.edu.

It is up to you to decide whether to take part in this study. Refusal to participate or the decision to withdraw from this research will involve no penalty or loss of benefits to which you are otherwise entitled. This will not affect your relationship with the investigator. There are no costs or compensation for study participation.

Voluntary Participation

It is up to you to decide whether to allow your child to take part in this study. Refusal to allow your child to participate or the decision to withdraw your child from this research will involve no penalty or loss of benefits to which your child is otherwise entitled. This will not affect your or your child's relationship with the investigator.

Costs and Compensation to Participants

There are no costs or compensation for study participation. The anticipated conclusion of this study is spring 2010. After the study is completed, I would be happy to share the results with you, as well as any possible recommendations for your child.

CONSENT

By signing this consent form, I confirm I have read the information in this parental permission form and have had the opportunity to ask questions. I will be given a signed copy of this parental permission form. I voluntarily agree to allow my child to take part in this study.

Child's Name

Parent/Guardian's Name

Parent/Guardian's Signature

Date

Relationship to Child

Name of Researcher or Staff

Signature of Researcher or Staff

Date

Assent to Participate in a Study

Purpose of the Research

We are asking you to take part in a research study because we are trying to learn more about how to help students to remain focused on the assignments that they are given in class.

Procedure/Intervention/Method

If you agree to be in this study you will be taken out of the classroom 4 times a week for about 10-15 minutes each day to watch videos of students working on their assignments. Some of the videos will be of other students working on their assignments. One of the videos will be a recording of you that we will film while you are in your classroom. During this study you will also be given a small buzzer called a MotivAider to wear while you are doing seatwork in class to help you to remember to keep working on your assignments. At times there will be researchers in your classroom making classroom observations. At the end of this study we will ask you questions about how you liked being part of this study. These activities will last about 3 weeks.

Risks

It is possible that being part of this study may make you feel singled out because it is difficult for you to stay focused on your class work. You may also feel uncomfortable being removed from your classroom.

Benefits

Being in this study will help us to understand if the different activities that we do in this study will help students to remain focused on their classroom assignments. Participating in this study may help you to remain focused on your school work, finish more of your work, and help you to feel better about your ability to do well at school.

Alternative Procedures and Voluntary Participation

If you don't want to be in this study, you don't have to be in it. Remember, being in this study is up to you and no one will be upset if you don't want to participate. You change your mind later if you want to stop. Please talk this over with your parents before you decide whether or not to participate. We will also ask your parents to give their permission for you to take part in this study. But even if your parents say "yes" you can still decide not to do this.

Confidentiality

All of your records about this research study will be kept locked up in my office so no one else can see them. Your name will not be used on any paperwork that people other myself will see. Your own personal video will also not be shown to any of the other students in this study.

Person to Contact

You can ask any questions that you have about the study. If you have a question later that you didn't think of now, you can call me (Brian King 801-567-8208) or ask me next time.

Consent

Signing my name at the bottom means that I agree to be in this study. My parents and I will be given a copy of this form after I have signed it.

Printed Name of Child

Signature of Child

Date

Printed Name of Witness

Signature of Witness

Date

Parent Permission for Peer Models

Dear Parents,

I will be conducting a research project as part of my graduate studies in Educational Psychology. As part of this study I will need participation from 2nd to 3rd grade students to act as peer models/examples.

Purpose: The purpose of this research is to study the effects of peer modeling to increase attentive behavior in school. I am looking for students to participate in this study as peer models.

Procedure: Being a peer model for this study involves being video recorded doing simulated schoolwork. Each participant will be given an academic task to do and asked to focus completely on their work in spite of any distractions going on in the room. Video recordings will be edited as needed to provide a finished segment of approximately five minutes for each child. Participants may also be asked to demonstrate how to use the Motivaider, which is a device used to help remind students to remain on-task in the classroom. Student models may also be recorded while working in a small group in order to provide a longer video of about 15 minutes which will be used by the researchers to establish observer reliability. Parent(s) are welcome to be present during the recording session.

Duration: I anticipate that the recording session will take approximately one and a half hours. The session will take place during a time approved by your student's principal and teacher.

Confidentiality: The purpose of these video segments is to provide a model for other students who struggle to stay on-task in their academic work. This video will be shown to other students for this purpose. The video will also be shown to other college students or school professionals for educational and training purposes. Your child's name will not be used in any of the videos or appear in any reports that will be written about the study. Because the videos will be shown in the Intermountain area, it is possible that someone may view the video that is acquainted with the child.

Risk/Benefits: I will try to make participating as a peer model a positive experience for everyone. There are no specific anticipated benefits to your child for participating, but I would like permission to give your child a treat or small toy to thank them for helping me with this project. I do however anticipate that benefits will occur for those involved in watching the peer modeling tape, and your child can be a part of trying to help another child. I anticipate completing the study in the Spring of 2010, and would be glad to share the results of the study with you after it is finished. The only anticipated risk for your child is that of being identified by someone watching the videotape. It is important that if you give your consent for the video recording that both you and your child feel comfortable with this.

Withdrawal: After giving initial consent, your consent can be withdrawn by contacting me at 801-567-8208. After verbally withdrawing consent I will immediately cease using your child's portion of the video, and I will ask you to withdraw your consent in writing. I will then erase or tape over your child's portion of the video to permanently destroy it.

Person to Contact: If you have questions, complaints or concerns about this study, you can contact Brian King at 801-567-8208. If you feel you have been harmed as a result of participation, please call my faculty advisor Dr. William R. Jenson at 801-581-7148. If Dr. Jenson is unavailable please leave a message and your call will be returned as soon as possible.

Institutional Review Board: Contact the Institutional Review Board (IRB) if you have questions regarding your child's rights as a research participant. Also, contact the IRB if you have questions, complaints or concerns which you do not feel you can discuss with the investigator. The University of Utah IRB may be reached by phone at (801) 581-3655 or by e-mail at irb@hsc.utah.edu.

Research Participant Advocate: You may also contact the Research Participant Advocate (RPA) by phone at (801) 581-3803 or by email at participant.advocate@hsc.utah.edu.

It is up to you to decide whether to allow your child to take part in this study. Refusal to allow your child to participate or the decision to withdraw your child from this research will involve no penalty or loss of benefits to which your child is otherwise entitled. This will not affect your or your child's relationship with the investigator. There are no costs or compensation for study participation.

Your permission to allow your child to participate in this study is greatly appreciated. I hope that the study will prove helpful for many children.

Sincerely,

Brian King
Graduate Student in Educational Psychology
University of Utah

Consent:

By signing this consent form, I confirm I have read the information in this parental permission form and have had the opportunity to ask questions. I will be given a signed copy of this parental permission form. I voluntarily agree to allow my child to take part in this study.

Child's Name

Parent/Guardian's Name

Parent/Guardian's Signature

Date

Relationship to Child

Name of Researcher or Staff

Signature of Researcher or Staff

Date

Assent for Peer Model

Purpose of the Research

We are asking you to take part in a research study because we are trying to learn more about how to help students to remain focused on the assignments that they are given in class.

Procedure/Intervention/Method

If you agree to be in this study you will be recorded doing school work, or modeling how to use the MotivAider.

Risks

There is a possibility that someone who watches the video will recognize you.

Benefits

Being in this study will help us to understand how to help other students to stay focused on their class work.

Alternative Procedures and Voluntary Participation

If you don't want to be in this study, you don't have to be in it. Remember, being in this study is up to you and no one will be upset if you don't want to participate. You change your mind later if you want to stop. Please talk this over with your parents before you decide whether or not to participate. We will also ask your parents to give their permission for you to take part in this study. But even if your parents say "yes" you can still decide not to do this.

Confidentiality

All of your records about this research study will be kept locked up so no one else can see them. The videos will be shown to other students in this study. The videos may also be shown to other college students or school professionals for educational training purposes. Your name will not appear on the video or any written reports. Because this video will be shown in the Intermountain area it is possible that someone who sees the video may recognize you.

Person to Contact

You can ask any questions that you have about the study. If you have a question later that you didn't think of now, you can call me (Brian King 801-567-8208) or ask me next time you see me.

Consent

Signing my name at the bottom means that I agree to be in this study. My parents and I will be given a copy of this form after I have signed it.

Printed Name of Child

Signature of Child

Date

Printed Name of Witness

Signature of Witness

Date

Consent for Adult Models

Dear _____,

I will be conducting a research project as part of my graduate studies at the University of Utah in Educational Psychology and I would like to invite you to participate.

PURPOSE: I will be making a peer modeling video to use as part of an intervention with elementary age students that have difficulty paying attention in their schoolwork. The video will show peers engaged in different types of school assignments. The purpose of the videotape is to provide a model for students who struggle to stay on-task in their academic work. At the end of each segment of the video, an adult will role play a teacher giving praise to the child for paying attention and/or working.

PROCEDURE: I need a few adult volunteers to role-play as teachers, and be videotaped giving praise to each child. It would involve your being present while children are being video recorded doing simulated schoolwork, and when cued, walk up to the child and verbally praise him/her for paying attention and/or working hard.

DURATION: I anticipate that the video recording session will last approximately one and a half hours. You would not need to stay for the entire session if that is inconvenient.

CONFIDENTIALITY: The purpose of these video segments is to provide a model for elementary age students who struggle to stay on-task in their academic work. This video will be shown to students for this purpose. The video may also be shown to other college students or school professionals for educational and training purposes. Your name will not be used in the video or appear in any reports that will be written about the study. Because the video will be shown in the Intermountain area, it is possible that someone may view the video that is acquainted with you.

RISKS/BENEFITS: There are not direct anticipated risks or benefits to you, except for the risk that someone will view the videotape that is acquainted with you. Before giving your consent I would ask you to think about this and be sure you are comfortable with it. Potential benefits include the chance to participate in a research project and the opportunity to assist children who will be participating in this study that are having difficulty attending to their schoolwork. I anticipate completing this project in the Spring 2010. I would be happy to share results of the study with you at that time.

Person to Contact: If you have questions, complaints or concerns about this study, you can contact Brian King at 801-567-8208. If you feel you have been harmed as a result of participation, please call my faculty advisor Dr. William R. Jenson at 801-581-7148. If Dr. Jenson is unavailable please leave a message and your call will be returned as soon as possible.

Institutional Review Board: Contact the Institutional Review Board (IRB) if you have questions regarding your rights as a research participant. Also, contact the IRB if you have questions, complaints or concerns which you do not feel you can discuss with the investigator. The University of Utah IRB may be reached by phone at (801) 581-3655 or by e-mail at irb@hsc.utah.edu.

Research Participant Advocate: You may also contact the Research Participant Advocate (RPA) by phone at (801) 581-3803 or by email at participant.advocate@hsc.utah.edu.

It is up to you to decide whether to take part in this study. Refusal to participate or the decision to withdraw from this research will involve no penalty or loss of benefits to which you are otherwise entitled. This will not affect your relationship with the investigator. There are no costs or compensation for study participation.

Sincerely,

Brian King
Graduate Student in Educational Psychology
University of Utah

CONSENT:

By signing this consent form, I confirm I have read the information in this consent form and have had the opportunity to ask questions. I will be given a signed copy of this consent form. I voluntarily agree to take part in this study.

Printed Name of Participant

Signature of Participant

Date

Printed Name of Researcher or Staff

Signature of Researcher or Staff

Date

APPENDIX B

QUESTIONNAIRES

Child Information Questionnaire

I would appreciate if you would please answer the following questions about your child. Answering any of these questions is optional, but the information will be helpful to me when interpreting the results of the study. All information will be kept confidential. And any identifiers will be removed

1. Has your child ever been diagnosed with a learning or attention problem?

If so, what type?

2. Is your child on any medication?

If so, what type?

3. Is it okay to give your child a small treat or toy when they meet with me?
(For example: drink, candy, yo-yo, or ball.)

4. Is there any other information about your child you feel might be helpful for me to know?

The Children's Intervention Rating Scale

- | | |
|---|---|
| 1. Watching the video and using the MotivAider seemed fair. | 1 - - - 2 - - - 3 - - - 4 - - - 5 - - - 6 |
| 2. Watching the video and using the MotivAider was hard. | 1 - - - 2 - - - 3 - - - 4 - - - 5 - - - 6 |
| 3. Watching the video and using the MotivAider caused problems with my friends. | 1 - - - 2 - - - 3 - - - 4 - - - 5 - - - 6 |
| 4. There are better ways to help me to stay focused on my work. | 1 - - - 2 - - - 3 - - - 4 - - - 5 - - - 6 |
| 5. This would be a good program to use with other kids. | 1 - - - 2 - - - 3 - - - 4 - - - 5 - - - 6 |
| 6. I like this program to help me stay focused. | 1 - - - 2 - - - 3 - - - 4 - - - 5 - - - 6 |
| 7. I think the videos and the MotivAider helped me do better in school. | 1 - - - 2 - - - 3 - - - 4 - - - 5 - - - 6 |

What did you like about the MotivAider?

What didn't you like about the MotivAider?

What did you like about this program?

What didn't you like about this program?

Intervention Rating Scale

Please evaluate the intervention by circling the number which best describes *your* agreement or disagreement with each statement. You *must* answer each question.

1= Strongly Disagree

2= Disagree

3= Slightly Disagree

4= Slightly Agree

5= Agree

6= Strongly Agree

- | | | | | | | |
|---|---|---|---|---|---|---|
| 1. This was an acceptable intervention for the child's problem behavior. | 1 | 2 | 3 | 4 | 5 | 6 |
| 2. Most teachers would find this intervention appropriate for behavior problems in addition to the one addressed. | 1 | 2 | 3 | 4 | 5 | 6 |
| 3. The intervention proved effective in changing the child's problem behavior. | 1 | 2 | 3 | 4 | 5 | 6 |
| 4. I would suggest the use of this intervention to other teachers. | 1 | 2 | 3 | 4 | 5 | 6 |
| 5. The child's behavior problem was severe enough to warrant use of this intervention. | 1 | 2 | 3 | 4 | 5 | 6 |
| 6. Most teachers would find this intervention suitable for the behavior problem addressed. | 1 | 2 | 3 | 4 | 5 | 6 |
| 7. I would be willing to use this in a classroom setting. | 1 | 2 | 3 | 4 | 5 | 6 |
| 8. The intervention did not result in negative side effects for the child. | 1 | 2 | 3 | 4 | 5 | 6 |
| 9. The intervention would be appropriate intervention for a variety of children. | 1 | 2 | 3 | 4 | 5 | 6 |
| 10. The intervention is consistent with those I have used in classroom settings. | 1 | 2 | 3 | 4 | 5 | 6 |
| 11. The intervention was a fair way to handle the child's problem behavior. | 1 | 2 | 3 | 4 | 5 | 6 |
| 12. The intervention is reasonable for the behavior problem addressed. | 1 | 2 | 3 | 4 | 5 | 6 |
| 13. I like the procedure used in the intervention. | 1 | 2 | 3 | 4 | 5 | 6 |
| 14. This intervention was a good way to handle this child's behavior problem. | 1 | 2 | 3 | 4 | 5 | 6 |

- | | | | | | | |
|--|---|---|---|---|---|---|
| 15. Overall, the intervention was beneficial for the child. | 1 | 2 | 3 | 4 | 5 | 6 |
| 16. The intervention quickly improved the child's behavior. | 1 | 2 | 3 | 4 | 5 | 6 |
| 17. The intervention will produce a lasting improvement in the child's behavior. | 1 | 2 | 3 | 4 | 5 | 6 |
| 18. The intervention improved the child's behavior to the point that it would noticeably deviate from other classmate's behavior. | 1 | 2 | 3 | 4 | 5 | 6 |
| 19. Soon after using the intervention, a teacher would notice a positive change in the problem behavior. | 1 | 2 | 3 | 4 | 5 | 6 |
| 20. The child's behavior will remain at an improved level even after the intervention is discontinued. | 1 | 2 | 3 | 4 | 5 | 6 |
| 21. Using the intervention should not only improve the child's problem behavior in the classroom, but also in other settings (e.g., other classrooms, home). | 1 | 2 | 3 | 4 | 5 | 6 |
| 22. When comparing this child with a well behaved peer before and after use of the intervention, the child's and the peer's behaviors are more alike after using the intervention. | 1 | 2 | 3 | 4 | 5 | 6 |
| 23. The intervention produced enough improvement in the child's behavior so the behavior no longer is a problem in the classroom. | 1 | 2 | 3 | 4 | 5 | 6 |
| 24. Other behaviors related to the problem behavior also are likely to be improved by the intervention | 1 | 2 | 3 | 4 | 5 | 6 |

What are the aspects of this intervention that you like?

What if anything did you not like about the intervention?

What did you like about the MotivAider?

What if anything did you not like about the MotivAider

Adapted from the BIRS (Elliot and Trueting, 1991

APPENDIX C

OBSERVATION FORM

Behavior Observation Form

Target Student:

Teacher:

Date:

Class Activity:

Time:

Observer:

	1	2	3
Target Student	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Peer Comparison	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	4	5	6
Target Student	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Peer Comparison	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	7	8	9
Target Student	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Peer Comparison	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	10	11	12
Target Student	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Peer Comparison	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	13	14	15
Target Student	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Peer Comparison	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- * = *On-Task*: Eye contact with teacher or task and performing the requested task.
- T** = *Talking Out/Noise*: Inappropriate verbalization or making sounds with object, mouth, or body.
- O** = *Out of Seat*: Student fully or partially out of assigned seat without teacher permission.
- I** = *Inactive*: Student not engaged with assigned task and passively waiting, sitting, etc.
- N** = *Noncompliance*: Breaking a classroom rule or not following directions within 15 seconds.
- P** = *Play with object*: Manipulating objects without teacher permission.

APPENDIX D

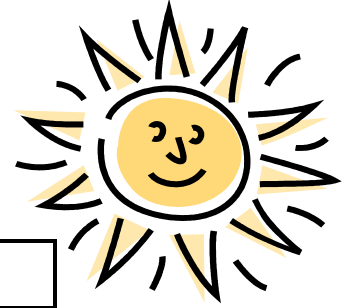
SELF-MONITORING FORM

On-Task/Working Monitoring Form

Student's Name:

Date:

Class:



Each time you feel a buzz mark **+** if you are working and **0** if you are not working

APPENDIX E

CHECKLISTS

Subject _____

Date _____

Self-Monitoring Training Checklist

Subject has watched the instructional video	
Subject can correctly describe on-task behavior	
Subject can correctly describe off-task behavior	
Subject can properly describe how and when they will get the self-monitoring materials	
Subject can demonstrate how to wear the MotivAider	
Subject shows where to place the chart on his/her desk	
Subject can demonstrate how and when to mark the self-monitoring chart	
Subject can describe proper procedure for returning the self-monitoring material back to the teacher	

Subject_____

Self/Peer-Model Video Intervention Checklist

Date								
Take student to intervention room								
Engage in one minute social conversation								
One or two beginning comments								
Start video								
Make coaching comments about every 30 seconds								
Make one or two ending statements								
Reinforce subject with spinner								
Return subject to class								

(Based on Richards, 2002)

APPENDIX F

COACHING STATEMENTS

Self-Modeling Video Protocol

Before Video: A few coaching statements are made before watching the self-model video. Statements should be made that encourage the subject to focus on the video as well as to point out which behaviors they are to specifically to observe.

Examples:

- “We are going to watch to see some examples of paying attention and staying on-task.”
- “Lets pick out some examples of how you are able to stay focused while doing your work.”
- We are going to watch some examples of how you are able to keep working on your assignments in the classroom. Lets see what you do when you are focused on your work.”

During the Video: Comments should be made by the researcher while watching the self-model video tapes every 30 seconds. The comments should focus on helping the subject identify the specific on-task behaviors that are exhibited during the video.

Examples:

- “Look how you are concentrating on your work.”
- “Someone just made a noise and you are still working. You didn’t even look up.”
- “You just finished to front page and you went right on to the next one without talking or stopping.”
- “You are working so hard you look like a 5th or 6th grader.”
- “Some people daydream or get out of their seat, but I don’t see you do that in the video. Do you?”
- “You can tell you are going to get this work done because your eyes move to the next problem before you finish the last one.”
- “You must get all of your talking done during lunch or recess. I only see your mouth moving when you are reading a problem to yourself.”

After the Video: After watching the video the subject should be encouraged to display these same types of behaviors in class.

Examples:

- “Can you ignore the other kids just like that when you go back to class?”
- “Do you think you can do this now that you are not being video taped?”
- “When you finish a problem or a page, can you go right on to the next one?”
- “Now its time to go back to class. What do you think you will be like when you do your next math worksheet?”
- “Remember to do this when you get back to class. I know you can.”

(Based on Richards, 2002 & Clare 1992)

Peer-Modeling Video Protocol

Before Video: A few coaching statements are made before watching the peer-model video. Statements should be made that encourage the subject to focus on the video as well as to point out which behaviors they are to specifically to observe.

Examples:

- “You are going to watch a short video clip. I want you to watch and see how well the boy in the video keeps working on his assignment no matter what happens.”
- “Watch the girl in the video to see if she is able to keep her eyes on her work the whole time.”
- “See how much work the boy in the video can do in just 5 minutes.”
- “Let’s watch and see how well the boy in the video is able to stay focused on his work.”
- “Let’s see if the girl in the video that we are going to watch today can do as well as the student we watched last time.”

During the Video: Comments should be made by the researcher while watching the peer-model video tapes every 30 seconds. The comments should focus on helping the subject attend to specific on-task behaviors that the subject exhibits during the video. Comments may also be made about similarities between the students.

Examples:

- “Look how she keeps her eyes on her paper the whole time.”
- “He is getting so much work done.”
- “She hasn’t even talked to her neighbor once.”
- “You look about the same age his is.”
- “Even though his neighbor was talking he still kept working on his assignment.”
- “I am sure that her teacher is going to be so happy when she sees how much work she has finished.”
- “He doesn’t even pay attention to them when other people are talking. He just keeps working.”
- “When she finished her first worksheet she went right on to the next one without talking.”

After the Video: After watching the video the subject should be encouraged to display these same types of behaviors in class.

Examples:

- “I bet you can work just as quietly as she did when you work on your math.”
- “Can you focus on your work just like the boy in the video did?”
- “I bet your teacher would be so happy with you if you kept your eyes on your work just like the girl in the video.”
- “I think you can ignore other people in the class who talk during study time just as well as the boy in the video.”

- “When you get back to class will you try to sit as quietly as he did?”

(Statements based on coaching statements used in Richards, 2002)

APPENDIX G

VIDEO OUTLINES

Peer Modeling Video Outline

SKIT 1

Models: 1 subject, 2 distracters, 1 teacher

Frame: Focus on subject. You should be able to see half of the student next to him.

Need: Worksheet for students to work on

Synopsis: Subject is working on a math worksheet at a table or group of desks. He is in the middle of 2 other students. During the video the distracter students will nudge him and attempt to talk to him however he will remain on-task. The teacher will occasionally walk past the group of students and when this happens the distracter students will go back to working. At the end the teacher will praise the subject for remaining on-task (“good job, thank you for concentrating of your work”).

Sample time frame:

30 seconds- student nudges, subject ignores

1:00- teacher walks by and occasionally walks by for the rest of the time

3:00- a student tries to talk to subject, subject remains focused

4:30- teacher praise “thank you for concentrating” can put hand on shoulder

SKIT 2

Models: 1 subject, 2 distracters, 1 teacher

Frame: At first you focus only on the subject. Occasionally as the distracter students talk etc. zoom out so you can see them. The subject is not in the middle of the distracter students but on the side.

Need: Worksheet for the students to work on

Synopsis: Subject is working on a worksheet. At times a student will get up out of his desk and walk behind the student. The teacher will occasionally walk by the students and check on their work. At times the two distracter students will talk to each other about their work. At the end the teacher praises the subject for remaining on-task (“good job, thank you for working hard”).

Sample time frame:

30 seconds- students next to subject talk about their work etc (zoom out)

1:00- teacher walks by

2:00 –one student gets up out of desk and walks behind subject (may bump)

3:30- students are talking again (zoom out a bit)

4:00 –teacher walks by

4:30- teacher praise (“you only have one more and then you are finished good job”)

SKIT 3

Models: 1 subject, 2 distracters, 1 teacher, adult to talk to the teacher

Frame: Focus mostly on subject. Subject should be in the middle of the two distracter students. Zoom out when the students talk to the subject for a few seconds.

Needs: Books for the students to work out of, paper

Synopsis: Student is doing work out of a book and sitting between two students. Someone comes in the room to talk to the teacher. At times the students next to the subject get out of their desks to get something and walk behind the subject. The teacher comes to help a student next to the subject. And a student walks up the subject, pokes him and tries to draw him off-task. At the end the teacher walks by and praises the student (“way to stay focused and complete your work”).

Sample time frame:

2:00- someone comes in to talk to the teacher

2:30- a student gets out of his desk to get something

3:30 – the teacher helps a student next to subject

4:00- a student pokes the subject and tries to draw him into a conversation

4:30- teacher praise “good job, way to stay focused, way to work hard”.

SKIT 4

Models: 1 subject, 2 distracters, 1 teacher

Frame: Subject sideway view, sitting a group of desks. You can see half of another student. Subject is not between two other students.

Needs: Book and paper for the student to work on

Synopsis: Student is working out of the book. You can see the subject in a sideway view and part of another student. While the subject is working a student gets up and walks behind him. Another student tries to talk to him and ask him what he is working on. The teacher passes by and stops to watch him work for a while. Students next to him talk to each other. At the end the teacher praised the subject (“You are really concentrating on your work, way to finish”).

Sample time frame:

30 seconds- student gets up and walks behind subject

1:00- you can hear the other students talking and one repeatedly tries to ask subject what he is working on

2:30- teacher passes by and watches student for a while

3:30- student next to subject tries to talk to him

4:00- can see other students talking next to subject

4:30- teacher praise (“you are really concentrating, way to work”).

SKIT 5

Models: 1 subject, 2 distracters, 1 teacher

Frame: Stay zoomed in on subject the whole time, can see a bit of the student next to him

Needs: worksheets

Synopsis: Subject is working on a worksheet. The camera stays zoomed in on him the whole time and you are able to see part of the students sitting next to him. While he is working you can here other students talking to him. A student gets up and walks behind him. The teacher comes by and praises him for doing working. You can hear the teacher giving advice to other students around him.

Sample time frame:

1:00- you can hear the students next to him talking

1:30- student next to subject gets up and walks behind him
 2:30- a student walks behind him and past him
 3:30- teacher comes by and praises him for working hard and then moves on to next student
 3:45 you can hear the teacher giving advice to other student
 4:30 end

SKIT 6

Models: 1 subject, 2 distracters, 1 teacher

Frame: focus on subject the whole time

Needs: worksheet for students to work on

Synopsis: Camera is focused on subject working on a worksheet. While the subject is working you can hear the teacher helping another student. The office calls over the intercom. The teacher comes by to praise his work ("thank you for staying focused on your work").

Sample time frame:

30 seconds- you can hear the teacher helping another student

1:30- intercom ("please send so-and-so to the office)

3:30- teacher is helping the other student

4:30- teacher praise ("looks like you have done a lot of work, thanks for remaining focused")

SKIT 7

Models: 1 subject, 2 distracters, 1 teacher

Frame: focus on the subject

Needs: Worksheet for students to work on

Synopsis: Student will be working on a worksheet. Keep camera focused on the subject. The office calls the classroom via the intercom. A student next to the subject gets up and walks behind him. Teacher praises the student for remaining on-task ("good job, way to stay working").

Sample time frame:

30 seconds- office calls for someone to come to the office

2:00- a student next to the subject gets up and walks behind the subject

3:00- office calls to leave the teacher a message

3:30- a student next to the subject is talking/taping his pencil

4:30- teacher praise ("good job, you just have one more and you are done").

SKIT 8

Models: 1 subject, 2 distracters, 1 teacher

Frame: subject alone at his desk

Needs: worksheets

Synopsis: Subject is alone at his desk working on his worksheet. Two students stop behind his desk and talk. He finishes one worksheet and moves on to another. There is a page

from the office. The teacher comes by and asks how he is doing and gives him praise for remaining focused.

Sample time frame:

1:30- student stop behind subject and talk

3:00- student finishes one assignment and moves on to the next

3:30-page from the office (“send so-and so- to the office”)

4:00 teacher comes by and asks how he is doing and praises him for the work finished (“way to finish your assignment and working so hard”)

MotivAider/ Self-Monitoring Instructional Video

You will be taking part in a program that will help you to increase the amount of time that you spend working on your assignments in the classroom. Before you can start the program however you must learn how to use some tools that will help you to stay focused while you do your work. ***(Show a student who is excited to start the program)***

The first tool is the MotivAider. ***(Show the MotivAider)*** The MotivAider is like just like having a secret friend with you while you work. Your friend will remind you to keep working on your assignments by secretly buzzing you every once in a while when you are supposed to be working. When you feel the MotivAider buzz you will know that the MotivAider is asking you “Are you working?” ***(Show the MotivAider buzzing, captions “Are you working?”)***

The second tool is your work chart. ***(Show Chart)*** This chart is a place for you to keep track of how often you are working. When you feel the MotivAider buzz as if to ask “Are you working?” ***(Show MotivAider buzzing, with captions “Are you working?”)*** you will put a “+” mark if you are working ***(Show a student who is working put a “+” on chart)***. If you are not working when you feel the MotivAider buzz you will put a “0” on your chart ***(Show a student who is not on-task put a “0” on the chart)***. This way you will be able to see for yourself how often you are working. ***(Show a chart that is filled out)***

Now that you know about the tools that you will be using let’s see how they will work together. ***(Show original student listening at desk and nodding at the end)***

When it is time for you to do work by yourself at your desk, your teacher will come to your desk to give you your tools ***(Show teacher walking over to desk with tools)***. Your teacher will first give you the MotivAider ***(Teacher handing the student the MotivAider)***. When you get your MotivAider you may put it on the waist of your pants or on the inside or your pant pockets ***(Show student attaching the MotivAider to outside of pants and then pocket)***. Your teacher will know how to turn the MotivAider on ***(Show teacher)***. All you have to do is put it on.

Next your teacher will give you your work chart ***(Show teacher giving the chart)***. Place the chart on a corner of your desk where you will be able to see it and you will be ready to start your work. ***(Show student placing the chart at a corner of his desk)***.

While you are working once in a while you will feel the MotivAider buzz. ***(Show student feel the MotivAider buzz)***. Remember this is your secret friend's way of saying, "Are you working?" ***(Show MotivAider buzzing with captions "Are you working?")***. When you feel a buzz put a "+" mark on your work chart if you are working. ***(Show student working then putting a "+" on the chart/ close up of putting "+" on chart)***. Working includes doing your assignment or listening to your teacher if he or she is giving you instructions. ***(Show student working)*** Remember; if you are working when you feel the MotivAider buzz put a "+" on your chart. ***(Show chart with "+")***

If you are not working on your assignment and you feel a buzz from the MotivAider put a "0" on your chart ***(Show a student who is not working put a "0" on the chart/ Close up of chart with a "0")***. Not working includes looking around the classroom, talking to your neighbor, or playing when you should be working ***(show a student not working while others are)***. Remember; anytime you feel the MotivAider buzz and you know that you were not working, mark a "0" on your chart. ***(Show a close up of chart with a "0")***

When it is time to stop working, take the MotivAider and your chart to your teacher. Your teacher will give them back to you when you need them again. ***(Show student giving MotivAider and chart back to teacher)***

Using the MotivAider and the chart together will help you to spend more time working on your assignments in the classroom. That is something that will make both you and your teacher proud ***(Show student looking at assignment with happy teacher)***.

The End

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