THE INFLUENCE OF SELF-OBSERVATION USING VIDEO ON INCREASING TIME ON-TASK AND ACADEMIC ACHIEVEMENT IN STUDENTS WITH LEARNING DISABILITIES

by

SU HYUN KIM

(Under the Direction of Tom Clees)

ABSTRACT

The purpose of this study was to examine the effects of video-based self-observation on the on-task seatwork behavior of three elementary students with Specific Learning Disabilities (SLD). A multiple baseline across students design was used to investigate the effectiveness of the self-observation intervention. The results indicated that self-observation using video was useful for increasing levels of on-task behavior during independent seatwork in both the general and special education classrooms. The effects of the intervention on academic performance were also evaluated with an apparent ceiling effect obscuring any potential gains.

INDEX WORDS: Specific Learning Disabilities, Self-modeling, Positive Self-review, Self-observation, On-task, Academic Performance, Video, Independent Seatwork

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DEDICATION

This is the start of my dedication to people with disabilities and their families. Moreover, I dedicate this to my parents who always support me in numerous ways. I am very lucky to have them.

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First, I would like to thank Dr. Clees, who is my advisor, for directing me. I also want to express my gratitude to Kathleen, Eun-Joo, Ji-Yeon, and Maria for assisting me throughout the research. In addition, I thank three students who participated in the study and their families who gave me permission.

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CHAPTER 1

INTRODUCTION

A basic responsibility of teachers is to provide the best possible environment to facilitate student learning. To establish the learning environment, teachers must determine the characteristics of their students and devise effective behavioral management plans accordingly. Teachers may find it difficult to manage their classrooms and efficiently focus on individual students due to their demanding schedules. However, the ideal situation for both the students and teachers includes effective behavioral management strategies in the classroom that emerge from knowledge of the students' learning styles and personalities. As a result of using such strategies, the students may adjust to school life better, and the teachers can better focus on instruction in the long run.

Many students with learning disabilities exhibit challenging behavior that can adversely affect their academic achievement (Mercer & Mercer, 2005). Students who exhibit low attention and disruptive behavior tend to have low academic skills (McKinney, 1989; McKinney, Mason, Perkerson, & Clifford, 1975; McKinney & Speece, 1986). Numerous studies have identified strategies that help students stay on-task, such as self-monitoring (Amato-Zech, Hoff, & Doepke, 2006; Shimabukuro & Prater, 1999; Wolfe, Heron, & Goddard, 2000), self-recording (Blick & Test, 1987; Shear & Shapiro, 1993), and peer-mediated interventions (Robertson, Green, & Alper, 2003).

Self-modeling has also been demonstrated to increase on-task behavior in the classroom (Clare, Jenson, Kehle, & Bray, 2000; Hartley, Bray, & Kehle, 1998; Kehle, Clark, & Jenson,

1986). Individuals' motivation and performance can be increased by watching themselves perform in a positive and successful way (Bandura, 1997), and enhanced self-belief may upgrade students' levels of performance (Dowrick, 1999).

Self-modeling has been utilized in two different forms to increase its effectiveness, including "feedforward" and "positive self-review" (Dowrick, 1991). Feedforward, which was first presented to reduce the frequency of inappropriate behavior for a boy with asthma (Creer & Miklich, 1970), involves rehearsal or role-play. It refers to "video images of target skills not yet achieved, created by editing together component behaviors that are manageable for the trainee or client" (Dowrick, 1991, p. 109). It has received recent attention as a method for skills training and for increasing positive behavior for students with autism (Buggey, 2005). For example, Buggey (2005) found that 5 children with autism, aged 5 to 11, significantly improved language and social initiation skills and decreased tantrums and aggression via a feedfoward procedure.

Positive self-review, related to the focus of this study (referred to as self-observation in the context of the present investigation), refers to exclusive observation of one's own optimal performance (Dowrick, 1991). Positive self-review using video has been employed across a range of participants including students who are nonverbal (Dowrick & Hood, 1978; Pigott & Gonzales, 1987), students who have behavioral disorders (Kehle et al., 1986; McCurdy & Shapiro, 1988) or emotional problems (Possell, Kehle, McLoughlin, & Bray, 1999), students with attention-deficit hyperactivity disorder (Walker & Clement, 1992; Woltersdorf, 1992), students who stutter (Bray & Kehle, 1996, 1998),), students with learning disabilities (Clare et al., 2000), students with autism (Sherer et al., 2001; Wert & Neisworth, 2003), and students without disabilities (Hartley et al., 1998).

The effectiveness of positive self-review has been investigated across a range of behaviors and dependent measures, including time on-task (Clare et al., 2000; Dowrick & Raeburn, 1977), disruptive behavior (Kehle et al., 1986; Woltersdorf, 1992), language skills (Buggey, 1995; Hepting & Goldstein, 1996; Pigott & Gonzales, 1987; Sherer et al., 2001), arithmetic skills (Schunk & Hanson, 1989), cooperative classroom behaviors (Hartley et al., 1998; Lonnecker, Brady, McPherson, & Hawkins, 1994), and spontaneous requesting (Wert & Neisworth, 2003). However, some of these studies did not show consistent outcomes (McCurdy & Shapiro, 1988; Possell et al., 1999), and in most of the studies only a small number of students participated (Hitchcock, Dowrick, & Prater, 2003).

Kehle et al. (1986) stated that "the term *self-observation was more descriptive of the process of observing oneself performing appropriate-only behavior."* In this study, the term "self-observation" is used instead of the term "positive self-review." Therefore, the purpose of this study was to evaluate if self-observation using video would affect students' on-task behavior during seatwork, and whether any changes in on-task would be associated with changes in academic performance.

Problem Statement

In a typical special education classroom, teachers struggle with students who frequently ask questions that are irrelevant to the lesson, talk with others, or daydream. Consequently, teachers spend much of their time controlling (or attempting to control) the students' behaviors, and other students may become too distracted to learn.

Students who have trouble learning in school often demonstrate behavioral or emotional difficulties because these problems have a reciprocal relationship (Mather & Goldstein, 2001). Many students who have learning difficulties lack attention skills, which causes off-task

behavior that can adversely affect academic achievement (Bender & Smith, 1990; McKinney, 1989; McKinney & Speece, 1986; Richards & Symons, 1995). For example, McKinney & Speece (1986) found that students with learning disabilities who did not show conduct problems gained higher reading skills compared to students with learning disabilities who demonstrated attention and behavior problems. Thus, the students with disabilities need to learn how to stay on task to establish good learning habits early in their lives.

Significance and Purpose of the Study

There are numerous behavioral management strategies, and several reviews on self-modeling using video indicate that video review is one application that can increase desired behavior (Dowrick, 1999; Hitchcock et al., 2003; Mechling, 2005; Meharg & Woltersdorf, 1990). The present investigation expanded upon Clare et al.'s (2000) research on positive self-review using video for behavior change in students with learning disabilities by determining whether self-observation using video would increase the percentage of time on-task during individual seatwork. In addition, this study was designed to identify if on-task behavior was associated with academic achievement.

Research Questions

1. Will elementary students with Specific Learning Disabilities (SLD) who exhibit off-task behavior during individual seatwork in the resource room increase their percentage of time on-task after watching edited videotapes that depict only one's own on-task behavior?
2. Will assessment of knowledge about on-task and off-task behavior affect the students' on-task behavior?
3. Will the students' level of on-task behavior achieved during the positive self-observation intervention in the resource room remain after the intervention is terminated?

4. Will students' academic achievement improve given increments in on-task behavior?
5. Will the effect of the self-observation intervention on student on-task behavior generalize to general education classrooms?

Definitions of Terms

The essential terms used in the present study are described in this section.

Specific Learning Disability

According to the Individuals with Disabilities Education Act (2004), *Specific Learning Disability* refers to "a disorder in one or more of the basic psychological processes involved in understanding or in using language, spoken or written, that may manifest itself in the imperfect ability to listen, think, speak, read, write, spell, or do mathematical calculations. The term includes such conditions as perceptual disabilities, brain injury, minimal brain dysfunction, dyslexia, and developmental aphasia. The term does not include a learning problem that is primarily the result of visual, hearing, or motor disabilities, of mental retardation, of emotional disturbance, or of environmental, cultural, or economic disadvantage" (p. 118).

Self-modeling

Self-modeling is defined as "a procedure in which people see themselves on videotapes showing only adaptive behavior" (Dowrick, 1986, p. 201).

Positive Self-review

Positive self-review refers to "selective review of superior performances drawn from the current repertoire" (Dowrick, 1991, p. 113).

Self-observation

Self-observation refers to "the process of observing oneself performing appropriate-only behavior" (Kehle et al., 1986, p. 289).

CHAPTER 2

LITERATURE REVIEW

Students with learning disabilities generally exhibit behavioral challenges such as attention difficulties (Bender & Smith, 1990; McKinney, 1989; McKinney & Speece, 1986; Richards & Symons, 1995; Vaughn, Zaragoza, Hogan, & Walker, 1993). Many researchers have given attention to the issue that is related to high rates of off-task behavior in the classroom (Amato-Zech, Hoff, & Doepke, 2006; Blick & Test, 1987; Crum, 2004; DiGangi, Maag, & Rutherford, 1991; Kehle, Clark, & Jenson, 1986; Lam, Cole, & Shapiro, 1994; McCurdy, Skinner, Grantham, Watson, & Hindman, 2001; Reid, Trout, & Schartz, 2005; Robertson, Green, & Alper, 2003; Shimabukuro & Prater, 1999; Wolfe, Heron, & Goddard, 2000).

Richards and Symons (1995) found that externalizing behavior problems, such as off-task behavior, were significantly related to the academic achievement of students with learning disabilities and suggest that deficits in attention may be an important predictor of low academic achievement in the future. Therefore, these behavior problems in the classroom can impede learning experience, and motivation to learn new knowledge may be decreased due to repeated unsuccessful outcomes at school if appropriate intervention is not provided.

There are numerous behavior intervention strategies that can be used effectively in the classroom. Modeling is one of the effective interventions that have received considerable attention in the field of education. According to social cognitive theory (Bandura, 1986), people have an ability to think logically and prudently before acting, but misjudgment and behavioral problems can result from erroneous or unclear information. Therefore, if people can view and

observe explicit images of future actions that are represented symbolically, the process of learning may be shortened, and they may learn more effectively. In other words, observational learning, which is a type of modeling, is a potential method for teaching new skills and changing behavior (Bandura, 1986).

There are several forms of modeling, such as verbal and pictorial modeling. Video technology has provided yet another way to present models. Numerous studies related to video modeling—including self-observation, peer observation, and adult observation—have been reviewed by researchers (Ayres & Langone, 2005; Dowrick, 1999; Hitchcock, Dowrick, & Prater, 2003; Mechling, 2005; Meharg & Woltersdorf, 1990), and many studies provide evidence for its effectiveness. Video modeling has been used to improve swimming performance (Dowrick & Dove, 1980), language and communication skills (Bray & Kehle, 1996, 1998; Buggey, 1995, 2005; Charlop & Milstein, 1989; Dowrick & Hood, 1978; Hepting & Goldstein, 1996; Hitchcock et al., 2004; Sherer, Pierce, & Paredes, 2001; Wert & Neisworth, 2003), math skills (Schunk & Hanson, 1989; Woltersdorf, 1992), social behavior (Buggey, 2005; Creer & Miklich, 1970; Davis, 1979; Kehle, Clark, Jenson, & Wampold, 1986; Lonnecker, Brady, McPherson, & Hawkins, 1994; Simpson, Langone, & Ayres, 2004) , and community skills (Alacantara, 1994; Alberto, Cihak, & Gama, 2005; Haring, Kennedy, Adams, & Pitts-Conway, 1987; Shipley-Benamou, Lutzker, & Taubman, 2002).

Among these kinds of modeling, this review focused on self-modeling using video. Self-modeling intervention, including feedforward and positive self-review, has been shown to be an effective method for changing behavior and developing skills in various fields, and approximately 200 studies on modifying self-modeling techniques have been published (Hitchcock et al., 2003). The existing literature associated with self-modeling using video that

utilized experimental or quasi-experimental research designs is evaluated in this chapter. The main focus of this review is to examine positive self-review to improve academic and behavioral skills for students with disabilities.

Behavioral Problems of Students with Specific Learning Disabilities

Consistent with the philosophy of "inclusion," it is a major responsibility of both special and general educators to acknowledge the behavioral characteristics of students with disabilities and to acquire behavioral management skills. In McKinney's (1989) longitudinal study, the behavioral characteristics of students with Specific Learning Disabilities (SLD) were divided into seven categories: Attention deficit, normal behavior, conduct problems, withdrawn behavior, normal behavior with insignificant aggression, low positive behavior, and global behavioral problems. In the study, 28.6% of the students showed attention problems and 14.3% of the students demonstrated conduct problems, including attention problems and disruptive behaviors. These problematic characteristics of the students with SLD are strongly related to off-task behavior that might adversely affect academic achievement.

In a comparison of students with SLD to students without disabilities, the students with SLD had a tendency to demonstrate more behavior problems in the classroom (Bender & Smith, 1990). Bender and Smith (1990) analyzed the outcomes of 25 studies that investigated classroom behavior differences between students with SLD and students without disabilities. In a review of the literature, they pointed out that behavior problems, such as off-task behavior, conduct disorders, distractibility, and shy/withdrawn behavior, were more often found in students with learning disabilities.

Social Learning/Cognitive Theory

According to Bandura (1977), people gain knowledge of new behaviors instinctually or intentionally by monitoring other people's behavior and deciding whether to reproduce those behaviors in various situations. Moreover, learning and behavioral change may occur while simply observing others in various appropriate situations (Dowrick, 1991). Nevertheless, it is difficult to assure that all behaviors that are observed will be acquired and that people will perform automatically through observation itself (Bandura, 1977).

According to Bandura (1977), observational learning consists of four steps: attention toward a model's actions, retention of the actions, motor reproduction of the actions, and motivation of the learned actions. The effects of observation on learning new behavior vary according to a learner's attention level toward the model. The influence of models is magnified through mass media such as television, and the effects of modeling are very powerful because people can easily find interesting and diverse models watching television at home. Even though the behaviors are viewed attentively at the moment, people may not maintain the behaviors unless figures of the performance are memorized visually or aurally. Many students with SLD have problems with attention, memory, and motivation that can considerably influence development (Mather & Goldstein, 2001). Therefore, they may need more frequent exposure to various instances of the behaviors or skills.

Using oneself as a model may provide motivation because people typically tend to imitate the performance of others who are similar to them (Bandura, 1986). Individuals are also motivated to learn and achieve less difficult behaviors or skills, since it is natural for them to circumvent doing tasks that are above their abilities (Bandura, 1986).

Self-modeling Using Video

Videotaping is ubiquitous in the school, community, and at home. According to Bandura (1977), people are attentive to mass media, especially television, in which they can find diverse models that are similar to them. Dowrick (1999) pointed out that self-modeling can be accomplished by observing oneself performing higher level skills or appropriate behavior through an edited video.

Video self-modeling has been utilized as an intervention to increase both appropriate behavior skills and academic achievement in school settings since the early 1970s (Hitchcock et al., 2003). Creer and Miklich (1970), influenced by Bandura (1965), are pioneers of conducting research using video self-modeling as an intervention to change behavior. They created two videotapes to increase appropriate behavior for a child who had asthma. One videotape was edited to show only inappropriate behavior, while another videotape was created via role playing that captured appropriate behavior. The study provided notable results in changing the behavior of the student because the student maintained the desired behavior for 6 months after the intervention ended. Other interventions used before the video self-modeling application for the child had been unsuccessful.

Role playing, which is often used to conduct a self-modeling intervention (feedforward), is sometimes difficult for students who do not recognize what appropriate behavior is and who cannot demonstrate the behavior during filming because it often requires the students to demonstrate a behavior and/or a task that they have never before performed (Dowrick & Raeburn, 1977). For that reason, Dowrick and Raeburn suggested that positive self-review, which is another type of self-modeling, may be a potential tool for increasing the frequency of a desired behavior for these students because it only includes viewing the students' current

positive performance. They utilized a positive self-review intervention to increase the percent of time engaged in play activity for a student with mental retardation and hyperactivity. The study employed a reversal design with a follow-up phase. First, they videotaped the current behavior of the student and edited inappropriate behavior out of the videotape. Then, the participant viewed the videotape with no sound, once with medication (haloperidol) and once without medication. An unedited videotape also was used for comparison. The study showed that self-modeling using video had positive results in increasing the participant's time engaged in play activity.

There is some evidence that language behaviors can be enhanced via positive self-review. Pigott and Gonzales (1987) employed video self-modeling to increase the number of verbal answers and the frequency of hand-raising to answer questions in a third-grade student who had elective mutism. The study utilized a multiple baseline design across the two behaviors. The student watched the edited videotapes, which consisted of the student answering direct questions or raising his hand to answer questions, and the participant viewed the videotapes at home under his parents' supervision. The researchers then used self-modeling to reinforce him to answer voluntarily. As a result, the self-modeling intervention was effective in increasing the rate of answering direct questions, even though it did not affect his voluntary behavior. The participant enhanced not only his answering skills during the class, but also his positive interaction with peers.

Self-modeling using video has a significant influence on students who exhibit disruptive behavior. In addition, the procedures of self-modeling are uncomplicated, and a short amount of time is required to complete the intervention (Dowrick, 1999). The effectiveness of self-modeling has often been shown to be "instantaneous" (Kehle et al., 1986). Kehle et al. emphasize "self-observation" as part of the self-modeling process because it is a key to deriving

conclusions about self-modeling. They employed an ABA withdrawal design to compare the usefulness of viewing edited videotapes with viewing unedited videotapes. The four participants in the study were considered as having behavioral disorders and had exhibited disruptive behaviors in the classroom. Three subjects watched the edited videotapes, which consisted of appropriate behaviors, with one subject viewing both the unedited and edited videotapes. All three students who watched only their appropriate behavior significantly decreased their disruptive behaviors. The control student also decreased inappropriate behaviors while observing his successful behaviors, but he did not show any difference while viewing the unedited videotapes. However, several studies have shown less drastic effects of video self-monitoring on disruptive behavior and unsteady results across participants aged 5 to 11 (McCurdy & Shapiro, 1988; Possell, Kehle, McLoughlin, & Bray, 1999). Variables such as age, self-regulation abilities, and level of cognitive skills may influence the efficacy of video self-modeling intervention on behavioral change (Possell, Kehle, McLoughlin, & Bray, 1999).

Many students with autism spectrum disorders have significant difficulties with social communication skills, and deficits in these areas can be a great obstacle to interacting with others positively. Wert and Neisworth (2003) utilized video self-modeling to improve social communication skills in children with autism. They asked the children to play during a 30-minute session, while providing constant prompting for the purpose of creating 5-minute training tapes. These tapes were created by removing the prompts and inappropriate behaviors. Then, the participants viewed the videotapes once a day at home, and the parents, who were trained regarding video self-modeling procedures, participated in observing and supervising their children. All but one of the children drastically increased the frequency of spontaneous requests after the intervention.

Schunk and Hanson (1989) found that self-modeling had a great potential for increasing academic performance and self-efficacy. They conducted three experiments: A comparison of the effectiveness of self-modeling with that of peer modeling' an examination of the different effects of early and later exposure to self-modeling video tapes; and an investigation of the effects of self-modeling on academic performance. During the first experiment, 54 students who had below average grade math scores took the pretests about self-efficacy and fraction skills. They were randomly divided into four groups, and each group received the following treatments: Self-modeling, peer modeling, both self-modeling and peer modeling videotapes, or videotape control. The videotapes contained instructions for math fraction skills. Then, each group viewed the videotapes based on treatment type. At the end of the experiment, the students were required to take the posttests on both self-efficacy and fraction skills. During the second experiment, 40 students were divided into four different condition groups: early self-model, late self-model, videotape control, or instructional control. All groups except the instructional control group were videotaped and watched the videotapes at different times depending on the group treatments. During the third experiment, 60 students were divided into three different self-modeling conditions: mastery self-model, progress self-model, or videotape control. The mastery self-modeling videotapes were created at the time the students were familiar with solving fraction problems, and the progress self-modeling videotapes were created at the time the students began to learn how to solve the problems. The results indicated that both self-modeling and peer-modeling were effective in increasing math skills for students who were at risk in math and that both interventions had similar effects on self-efficacy. The timing of the videotaping did not affect the students' performance significantly, and both self-modeling videotapes containing the

students' progress level and mastery level were effective in increasing self-efficacy and fraction skills.

Several studies have focused on drawing a comparison between the usefulness of self-modeling and peer/adult modeling. McCurdy and Shapiro (1988) compared self-observation with peer-modeling to investigate the efficacy of self-observation on disruptive behavior. The study employed a multiple baseline design. Three out of 5 students were exposed to both self and peer videotapes, with peer-observation first. The fourth student viewed only self-modeling videotapes, and the fifth student watched both self and peer modeling videotapes but monitored his own behavior first. However, the results were inconsistent for each student. Three out of 5 students decreased their disruptive behavior during self-observation intervention, and student three reduced his disruptive behavior during both interventions. The researchers suggested that more replications of the study were necessary to determine the effectiveness of self-observation on behavioral change.

Sherer et al. (2001) compared the usefulness of self-modeling with other-modeling to improve conversation skills in students with autism. Based on the results, the difference between the effectiveness of using oneself as a model and others as models was not significant because 3 out of 5 participants who enhanced communication skills showed similar progress in both cases.

Watching only one's positive performance has been shown to be more effective in improving behavior and various skills than viewing videotapes that display both appropriate and inappropriate behavior (Dowrick & Raeburn, 1977; Kehle et al., 1989). Dowrick and Raeburn created two videotapes to investigate the influence of self-modeling on a child who exhibited hyperactive behavior. One videotape, the "treatment" videotape, contained only appropriate play behavior, while the other videotape, the "no-treatment" videotape, captured his typical behavior

without medication (haloperidol). As a result, the child remarkably increased the percentage of time spent engaged in the play activity during the “treatment” videotape intervention, whereas watching the “no-treatment” videotape did not affect the child’s play behavior. The researchers suggested that the positive effects of watching one’s appropriate behavior may be greater than observing both appropriate and inappropriate behavior. The study, however, used a case-study approach, and any differences between the effectiveness of watching the “treatment” and “no-treatment” videotapes are merely suggestive.

Kehle et al. (1986) utilized an ABA withdrawal design across three participants, with one additional student participating in the study as a "control". They found that self-observation using video was an effective method to reduce inappropriate behavior. Based on the results of the study, the three participants, who were exposed to edited tape intervention, considerably decreased inappropriate behavior, and the control student, who was exposed to both unedited and edited tape intervention, also demonstrated a reduced amount of disruptive behavior only during watching an edited tape.

Self-modeling Using Video for Students with Learning Disabilities

Mechling (2005) reviewed 24 studies that utilized video technology to teach various skills, such as those addressing communication, community, social behavior, self-help, daily/home living, and behavior-related skills. Only 4.2% of the studies targeted students with learning disabilities, and behavior-related skills were used as dependent variables in 5 out of 25 studies. Several studies have used video modeling with students with learning disabilities or who were at-risk for such (Clare et al., 2000; Hitchcock, Prater, & Dowrick, 2004; Lonnecker et al., 1994; Schunk & Hanson, 1989). Lonnecker et al. (1994) administered video self-monitoring with discrimination training and behavioral rehearsal within a multiple baseline design to increase

cooperative behavior and decrease inappropriate behavior in 2 early elementary school students with learning disabilities who exhibited behavior problems. The researchers created five-step questions to differentiate the intervention from other video self-monitoring processes. During the intervention, the participants had to answer questions such as “What behavior happened in the scene?”, “What was the purpose of the behavior?”, and “How can you behave differently?” to identify whether a particular behavior was appropriate after watching the videotape. The participants were then requested to perform cooperative behaviors they had learned from the video. The study showed the positive results of video self-modeling, which included discrimination training and behavioral rehearsal in increasing cooperative behavior. The behavior of the participants generalized to different settings after the intervention was over.

In Clare et al.’s (2000) study, the researchers employed a multiple baseline design across 3 students (with one additional student serving as a "control". They created five videotapes by editing out off-task behavior and leaving only on-task behavior and tested to see whether a limited number of videotapes might cause inconsistent consequences. They compared the percentage of time on task behavior of the three students with learning disabilities to a peer after conducting the self-modeling intervention. The experimental students demonstrated an increase in the percentage of time on-task during the self-modeling treatment and follow-up.

Summary

Video self-modeling has been identified as an effective method to modify behavior of students with learning disabilities. However, the power of video self-modeling can be altered depending on the researcher’s knowledge about self-modeling and how effectively the self-modeling video tapes are created (i.e., the number and length of videotapes, frequency of viewing the videotapes) (Dowrick, 1991; Meharg & Woltersdorf, 1990). It is also difficult to

generalize the usefulness of video self-modeling for the students with learning disabilities due to lack of participants and several inconsistent results (McCurdy & Shapiro, 1988; Possell et al., 1999).

The purpose of the present study was to evaluate if self-observation using video would affect students' on-task behavior during seatwork, and whether any changes in on-task would be associated with changes in academic performance.

CHAPTER 3

METHODOLOGY

Participants

To obtain some information about potential research participants, the researcher contacted a special education teacher in the public school setting. The teacher was informed about the following research criteria to facilitate the nomination of appropriate students for the study. First, the students needed to be classified as having a Specific Learning Disability (SLD) according to Georgia eligibility requirements (Appendix A). Second, the students needed to exhibit significant off-task behavior that was observed by teachers in the general and special education classrooms. Third, the researcher also had to recognize the students' off-task behavior through direct observations in the general and special education classrooms. Permission from the school district to conduct the research was obtained after the special education teacher recommended 4 students for the study. This was followed by an approval of the research study by the University of Georgia Institutional Review Board (IRB).

Once the 4 students were recruited for the study, consent forms and letters were sent to students' parents or guardians to sign (Appendix B). The special education teacher explained the nature of the research to the parents and guardians. After obtaining permission from the parents or guardians, the students were informed about the purpose of the study and what they were going to do as participants in the study. The researcher also provided the students with minor assent forms to sign (Appendix C). Both the students and the parents or guardians were informed that they could participate in the study voluntarily, that they could end their participation at any

time, and that the results of their participation would be confidential. Data were collected only after all signed consent forms and minor assent forms were obtained. Three out of the 4 students participated in the study because one student moved to another school district at the beginning of the study. Therefore, no information from this particular student is included in this study.

Three male students between the ages of 8 and 10 years participated in this study. The students attended a public school in a rural area in Georgia. They were classified as having Specific Learning Disabilities (SLD) according to Georgia eligibility requirements. They also were considered by the special education teacher and the researcher to have significant deficits in staying on-task in both the general and the special education classrooms. All students exhibited off-task behaviors such as talking to classmates, looking around the room, playing with pencils and papers, walking around the room without permission, or asking questions that were unrelated to the task. They also sometimes failed to complete in-class assignments on-time and often seemed to hurry through assignments without thinking, according to the special education teacher. A detailed description of each participant follows.

Joe

Joe was 9 years and 11 months old and in the third grade. He received special education services five times per week in the resource room and five times per week in the general education classroom while this research was being conducted. He was delivered through Caesarean section following a full-term pregnancy with no complications. He was referred for evaluation by his Student Support Team (SST) due to continued academic difficulty, particularly in reading and written expression as a first grader.

The following is a short description of Joe's evaluation for the purpose of special education eligibility. To assess his intellectual functioning, the Differential Ability Scales (DAS)

and the Wechsler Intelligence Scale for Children, Fourth Edition (WISC-IV) were administered to him when he was seven years and ten months old and in the first grade. In both tests, his overall performance fell in the well below average range. He demonstrated significant weaknesses in working memory and processing speed. The Comprehensive Test of Phonological Processing (CTOPP) was administered for Joe to evaluate his visual-motor functioning. His scores on the CTOPP indicated that his phonological awareness, phonological memory, and rapid naming skills fell in the below average range. Joe's academic functioning was assessed using selected subtests of the Kaufman Test of Educational Achievement, Second Edition (KTEA-II), Wechsler Individual Achievement Test, Second Edition (WIAT-II), Woodcock-Johnson Tests of Achievement, Third Edition (WJ-III ACH), and Differential Ability Scales (DAS). Based on the test results, his reading and written expression were well below average and significantly below expectations.

Joe was not overly active, but he was easily distracted and needed continuous redirection to focus on work. Joe attempted assignments, but if the work was difficult for him, he refused to work on it. Joe often failed to follow multiple directions given too quickly and had difficulty focusing for lengthy periods. Moreover, the teachers reported that he had difficulty organizing materials and frequently lost papers or assignments.

Chuck

Chuck was 8 years and 11 months old and in the third grade. He received special education services five times per week in the resource room and five times per week in the general education classroom during the course of this research study. He was delivered through Caesarean section following a full-term pregnancy with no complications. He was referred to the SST by his 2nd grade teacher.

Chuck's cognitive abilities were assessed using the DAS, and his overall performance on the DAS was found to be equal to or exceeding that of 42% of the individuals in his age range in the general population. The standard score differences obtained between the Verbal and Nonverbal Reasoning Clusters and the Spatial Cluster were statistically significant and indicated significant variability among discrete cognitive abilities. Chuck's performance on the Verbal and Nonverbal Clusters fell in the average range, but his performance on the Spatial Cluster was below average and suggested a relative weakness in visual perception and discrimination.

Chuck's academic achievement was assessed by using the PIAT-R, the KTEA-II, and the WIAT-II. According the tests results, his basic reading and reading comprehension skills were below average. Phonological awareness skills were average, although weaknesses were indicated in decoding skills. His listening comprehension skills were in the average range of ability. Chuck's written expression skills were in the below average range of ability. His understanding of math concepts and applications was average to above average.

The results of the evaluation indicated cognitive abilities in the average range of intelligence with a relative weakness in visual-spatial abilities. Chuck's academic achievement in basic reading, reading comprehension, and written expression was below average and below grade level expectations. Chuck demonstrated relative academic strengths in listening comprehension, math reasoning, and calculation. Therefore, Chuck was identified as having SLD in the areas of basic reading skills, reading comprehension, and written expression based on the Georgia Department of Education Guidelines.

According to the teachers, Chuck was compliant, but he needed to be redirected to stay focused and was not able to read along with classmates. The teacher reported that his overall behavior was appropriate but he often moved around the classroom and looked other students

without doing his assignment. Chuck was easily distracted and had difficulty following directions.

Alex

Alex was 10 years and 4 months old, in the third grade, and very compliant in the classroom. He received special education services five times per week in the resource room and five times per week in the general education classroom. He also received Occupational Therapy once per month. Alex was hypothermic and experienced feeding and swallowing difficulties after he was born and remained in an incubator in the hospital for 2 weeks before going home. Alex did not say his first word until he was three years of age. Moreover, Alex received speech/language therapy from age two to age five. Alex was transferred to his current school when he was a 2nd grader.

Alex was administered the Stanford-Binet Intelligence Scales, Fifth Edition (SB-V). He obtained a Full IQ of 94, which is in the average range, and his Nonverbal and Verbal IQs were also both in the Average Range. According to the results of the KTEA-II and the WJ-III, Alex's academic achievement in basic reading, reading comprehension, and written expression was below average and below grade level expectations.

The Achenbach Child Behavior Checklist for Ages 6 to 16 showed that Alex's behavior fell in the At-Risk Range of severity on the Social Problems, Attention Problems, and Aggressive Behavior scales. On the Attention Problems, his parents also reported that he was very impulsive, frequently inattentive, and often produced poor schoolwork. While Alex's scores on the Visual Perception and Motor Coordination tests were in the average range, his score on the Visual Motor Integration (VMI) test was in the below average range. Medication for ADHD was provided for Alex to improve his visual-motor performance. Alex's regular education

teacher reported that he often failed to complete his assignments because he was constantly moving.

Settings

Videotaping took place in the resource room during independent seatwork prior to and during baseline to construct the self-observation video, in which all instances of off-task behavior were edited out of the videos. That is, the videos only depicted the students' on-task behavior. The classroom next to the resource room was used for watching the video privately because it was empty during the morning period. In the resource room, there were two desks and chairs for a special education teacher and a paraprofessional, six individual desks and chairs for students, one group table and four chairs, and a sofa for reading. There were approximately 4 or 5 students per period. The students received reading instruction in the resource room. All participants were in the same resource room simultaneously before the schedule was changed around the middle of study. Alex was placed in a different period after the schedule change. All participants were in different general education settings. The remainder of the students' instruction (e.g., language arts, math, science, and social studies) took place in the general education classroom. On-task data was collected in the resource room and in each student's general education classroom.

Equipment and Materials

The researcher used a Sony Digital Handicam for videotaping, a laptop computer for viewing video clips, and a tripod for capturing stable images. Movie Maker and iMovie were used for video editing, and Windows Media Player and QuickTime Player were used for viewing video files. A group table and 2 chairs were used during the self-observation intervention. Three mini-tapes were used to record each participant's image in the classroom. A total of 12 video

files (4 video files for each student) were created after editing the tapes, and these files were saved to 6 compact discs (CDs), 2 for each student.

The investigator used on-task behavior data sheets to record students' on-task behavior during all phases in the classrooms (Appendix D). A tape recorder was used during on-task behavior observation to keep track of time. Task achievement data sheets were used to record their academic skills, such as the percentage of correct answers on a given assignment (Appendix E). To assess whether the participants could discriminate on-task and off-task behaviors, the researcher used written examples of on-task and off-task behaviors (Appendix F).

Dependent Measures

The dependent variables were the percentage of intervals of on-task behavior and the percentage of correct answers on a given assignment. On-task behavior was defined as working on the assignment, looking at the teacher or the assigned task, asking questions that are related to the lesson, or raising hand. Examples of off-task behavior were talking to peers, walking around the room, looking away from tasks, or asking irrelevant questions. The percentage of on-task behavior was calculated by dividing the number of on-task intervals (whole interval) by the total number of intervals observed, with the resulting quotient multiplied times 100. The percentage of correct answers on a given assignment was calculated by dividing the number of correct answers by the total number of questions and multiplying the resulting quotient by 100. For each of the subjects, data were collected during the baseline, intervention, and maintenance phases in the resource room and their respective general education classrooms.

Recording Procedures

On-task data were collected using a 5-second whole interval recording procedure over a 5-minute period during independent seatwork in the resource room and in the general education

classrooms. The researcher coded a plus sign (+) when on-task behavior continued throughout an entire 5-second interval, and a minus sign (-) was used when on-task behavior did not continue throughout the interval. The investigator used a tape recorder, with a number and a beeping sound that indicated the beginning and the ending point of each interval, to make sure that the length of each interval was the same. The number sound indicated each interval number and the beginning of each observation, and the beeping sound indicated the time for recording and the ending of each observation. That is, when the observer heard the number sound, she would begin to observe a student. Then when she heard the beeping sound, she wrote codes on the observation sheet. Both the number and beeping sounds were used to ensure that the researcher and the inter-observers were coding on the same intervals. A total of 60 intervals were recorded daily during individual seatwork. Data were recorded on a daily basis for approximately 19 weeks, except for Fridays, winter break, spring break, holidays, and the Criteria Referenced Competency Test (CRCE) period.

Data for academic skills (e.g., reading, language arts, and math) was collected by using both the general and the special education teachers' grading books. The grades for reading (e.g., reading Harman cards, solving comprehension questions, and spelling) were collected in the resource room, and the grades for language arts (e.g., writing assignments and grammar quizzes), and math (e.g., math worksheets) were collected in the general education classroom. The percentage of correct answers on a given assignment was recorded on task achievement data sheets by the researcher after the teachers graded the students' assignments.

Interobserver Agreement

For the purpose of reliability, 3 independent reliability observers, all graduate students at the University of Georgia, monitored and recorded the participants' on-task behavior with the

researcher. Prior to the baseline phase, the inter-observers were trained for recording observational data. During the 30-minute training session, each inter-observer observed videotapes which showed the target students doing their individual seatwork in the resource room. The reliability observers then practiced how to record on-task behavior on the data forms using the whole interval recording system until at least 95% agreement was reached. The agreement reliability was calculated by dividing the number of agreements by the total number of intervals, and multiplying the resulting quotient by 100. During the training, the level of agreement with each observer reached 98%, 95%, and 98%.

Treatment integrity

It is important to establish appropriate treatment integrity to reduce a variety of risks to experimental validity (Moncher & Prinz, 1991). Several intervention research studies that targeted students with learning disabilities have failed to provide information on how treatments were implemented (Gresham, MacMillan, Beebe-Frankenberger, & Bocian, 2000). To ensure that the independent variable (self-observation using video) was employed as planned, treatment integrity was checked by the 2 graduate students of the University of Georgia, who also were reliability observers. The treatment procedure was monitored and assessed at least twice for each participant during the intervention phase by using a checklist that shows procedural components for the purpose of treatment integrity (Appendix G). During the 30-minute training session, the graduate students and the researcher used the classroom next to the resource room to observe the videotapes of the target students. If the procedural item was implemented correctly, ‘Yes’ was coded, and if the item was not implemented as planned, ‘No’ was coded. Treatment integrity was calculated by dividing the number of observed correct procedural items by the total number of procedural items and multiplying by 100.

Research Design

A multiple baseline across participants design, which requires that the independent variable be introduced at a different time across the participants, was used to investigate the effectiveness of self-observation using video to increase on-task behavior and academic skills (i.e., to determine if a functional relationship was established between the independent variable and dependent variables). The independent variable was a self-observation intervention using video. Within the baseline condition, participants were assessed for their knowledge related to discriminating between on-task and off-task behaviors. Baseline was continued following this assessment to monitor for any changes in on-task associated with the assessment itself. Next, the self-observation intervention involving exposure to an edited videotape that depicted only on-task behavior began. The maintenance phase, during which there was no viewing of the videotape, was conducted to find out if the students maintained increased on-task behavior during the intervention phase.

Procedures

Four videos for each student, each approximately 3 minutes in length, were used during the intervention. Videotaping occurred in the resource room during the baseline and intervention phases. Each participant viewed the video in private with the researcher two or three times each week by using Windows Media Player, QuickTime Player, and a laptop computer in the room next to the resource room. The researcher observed the students for 5 minutes during independent seatwork in the resource room during baseline and, generally, following the self-observation sessions. The researcher also observed students' on-task behavior during independent seatwork in the general education classrooms as time permitted. Each participant was in a different general education classroom and had a different schedule, so the researcher

observed the students at different times. Moreover, the researcher collected students' grades in each content area (reading, language arts, and math) by using the teachers' grade books. The procedure consisted of three phases: baseline, intervention, and maintenance.

First, the researcher collected baseline data across the students. The students were introduced to the assessment of on-task and off-task behavior during the baseline phase. Additional data for the baseline phase were collected for several days to find out whether the assessment itself had effects on the students' on-task behavior. Then, the independent variable, self-observation, was introduced to the students.

Each phase was introduced at a different time across the students based on the stability of their on-task behavior. While the first student, who showed the most stable baseline data, was in the intervention phase, the other two students were still in the baseline phase. The intervention was then applied to the second student, who attained the most stable baseline between the remaining two students. The same process was eventually applied to the third student.

Baseline

No different treatment or behavioral management strategies were conducted other than the established behavioral management already in use. Videotaping occurred during independent seatwork in the resource room prior to and during baseline to construct the self-observation video, in which all instances of off-task behavior were edited out of the videos.

Assessment (on-task and off-task discrimination)

To check for prerequisite skills before the self-observation intervention, the investigator provided to each student written examples of on-task and off-task behaviors (see Appendix F). To conduct the assessment, the researcher sat beside each participant at a table in the resource room and read 10 examples of on-task and off-task behavior (e.g., walking around the room

without permission, doodling on paper, looking around the room) that was written in the sheet to the student. Then, the researcher asked the student to check only examples of on-task behavior on the sheet. The assessment was conducted when the student's baseline data were stabilized in the resource room. The students distinguished and classified the examples as on-task or off-task. Feedback was intended from the researcher if a student did not answer at least 80% of the questions correctly; however, all students met the 80% criterion.

Baseline data on on-task behavior for Joe were collected for 11 days in the resource room. On the 9th day of the baseline phase, he took the 5-minute assessment on on-task and off-task discrimination. He answered 9 out of 10 questions correctly. Since he showed an adequate score, which was at least 80% correct on the assessment, the researcher continued to collect baseline data for 4 additional days after Joe took the assessment.

Baseline data on on-task behavior for Chuck were collected for 23 days in the resource room. On the 29th session of the baseline phase, he took the 5-minute assessment on on-task and off-task discrimination. He answered 10 out of 10 questions correctly. Since he achieved 100% correct on the assessment, the researcher continued to collect baseline data for 4 additional days after Chuck took the assessment.

Baseline data on on-task behavior for Alex were collected for 37 days in the resource room. On the 45th day of the baseline phase, he took the 5-minute assessment on on-task and off-task discrimination and answered 10 out of 10 questions correctly. Since Alex achieved 100% correct on the assessment, the researcher continued to collect baseline data for 5 additional days after Alex took the assessment. Data were also collected for 8, 24, and 35 days in the general education classrooms.

Self-observation intervention

Approximately three times a week, each participant watched the 3-minute video clips of his on-task behavior without any comments or feedback from the researcher in the adjoining classroom, which was empty at the time. On the first day of the intervention phase, the researcher introduced the video instruction, asked the student whether he remembered being videotaped, and explained that the student would be watching a video of himself working for approximately three minutes. No praise or comments were given to the participants related to the on-task behavior on the video clips. The investigator sat next to the students quietly and observed them without giving any feedback. When the student was off-task for three or more consecutive seconds, the researcher redirected the student to watch video. At the end of each session, the researcher thanked the student for watching the video and instructed the student to return to his scheduled activity.

Intervention data were collected for 24, 17, and 10 days for Joe, Chuck, and Alex, respectively, in the resource room. Data were also collected for 25, 17, and 6 days for Joe, Chuck, and Alex, respectively, in the general education classrooms.

Maintenance

During the maintenance phase, no video taping occurred and the students did not view the videos. During the maintenance condition, the data were collected for 16, 11, and 7 days for Joe, Chuck, and Alex, respectively, in the resource room. Data were also collected for 11, 6, and 5 days for Joe, Chuck, and Alex, respectively, in the general education classrooms.

CHAPTER 4

RESULTS

This study was conducted to investigate whether self-observation using video was effective at improving the on-task behavior of three students with Specific Learning Disabilities (SLD). In addition, the students' academic achievement data were collected to examine whether their academic performance would improve as their on-task behavior increased. In this section, the results of interobserver agreement and treatment fidelity are presented, along with a visual graph analysis for on-task behavior and academic performance of the participants.

Interobserver Agreement

In the resource room, interobserver agreement for Joe, Chuck, and Alex were collected 36 %, 43 %, and 38 % of the days during the baseline phase. Interobserver agreement for Joe, Chuck, and Alex were collected 46 %, 41 %, and 40 % of the days during the intervention phase. Inter-observer agreement for Joe, chuck, and Alex were collected 31 %, 27 %, and 29 % of the days during the maintenance phase.

In the general education classrooms, interobserver agreement for Joe, Chuck, and Alex were collected 38 %, 38 %, and 34 % of the days during the baseline phase. Inter-observer agreement for Joe, Chuck, and Alex were collected 36 %, 25 %, and 33 % of the days during the intervention phase. Inter-observer agreement for Joe, chuck, and Alex were collected 25 %, 50 %, and 40 % of the days during the maintenance phase.

Table 1 depicts the mean and range of interobserver agreement across the phases of the study in the resource room and the general education classrooms.

In the resource room, mean percentages of inter-observer agreement for Joe, Chuck, and Alex, respectively, were 97% (ranging from 90% to 100%), 97% (ranging from 88% to 100%), and 97% (ranging from 87% to 100%). Overall, inter-observer agreement on on-task behavior in the resource room averaged 97% agreement and ranged from 87% to 100%.

In the general education classrooms, mean percentages of inter-observer agreement for Joe, Chuck, and Alex, respectively, were 97% (ranging from 92% to 100%), 96% (ranging from 88% to 100%), and 97% (ranging from 92% to 100%). Overall, inter-observer agreement on on-task behavior in the general education classroom averaged 97% agreement and ranged from 88% to 100%.

Table 1

Interobserver Agreement in the Resource Room and the General Education Classrooms

	Resource room		General education classroom	
Student	Range	Mean	Range	Mean
Joe	90% - 100%	97%	92% - 100%	97%
Chuck	88% - 100%	97%	88% - 100%	96%
Alex	87% - 100%	97%	92% - 100%	97%
Overall	87% - 100%	97%	88% - 100%	97%

Treatment Integrity

Two graduate students at the University of Georgia conducted treatment integrity by using the treatment integrity checklists. The treatment integrity data were collected four times

(17% of the days), three times (18% of the days), and twice (22% of the days) for Joe, Chuck, and Alex, respectively, during the intervention phase. As seen in Table 2, the mean treatment integrity was 100% for all procedural items.

Table 2

Treatment Integrity of Each Procedural Item

Procedural Items	Treatment integrity
Asks the student whether he remembers being videotaped, or notes the taping to the student.	100%
Explains to the student that he will be watching a video of himself working (no positive value of "working" is noted by R).	100%
R states length of video (in minutes) to student.	100%
R instructs student to begin watching video, and then starts video.	100%
R sits next to the student quietly and observes without discussing content of video.	100%
R redirects student to watch video if student is off-task for 3 or more consecutive seconds (POTENTIAL REACTIVITY).	100%
R states when the video has ended.	100%
R thanks/praises student for watching video.	100%

R instructs student to return to scheduled activity.	100%
R responds to any inquiries about the purpose of the video/viewing with a neutral statement (POTENTIAL REACTIVITY)	100%

Percentage of Time on-task in the Resource Room

Figure 1 depicts each participant's percentage of time on-task across baseline, self-observation and maintenance phases. Table 4 lists each participant's mean, median, and range of percent of time on-task in the resource room, per phase.

Mean percentages of on-task behavior for Joe, Chuck, and Alex were 28%, 31%, and 50%, respectively, during the baseline phase. During this phase, Joe and Chuck displayed considerably low on-task behavior, but Alex showed dramatically higher on-task behavior during the middle of the baseline phase. During the self-observation, mean percentages of on-task behavior for Joe, Chuck, and Alex were 72%, 78%, and 93%, respectively. All three students increased on-task behavior dramatically as soon as the intervention began. All students demonstrated increased mean percentages of on-task behavior during the intervention phase. Differences in mean percentages of on-task behavior between the intervention phase and the baseline phase for Joe, Chuck, and Alex were 44%, 47%, and 43%, respectively, indicating that all students increase their time on-task considerably. During the maintenance phase, mean percentages of on-task behavior for Joe, Chuck, and Alex were 64%, 88%, and 95%, respectively. All students maintained a higher mean percentage of on-task behavior, which attained during the intervention phase, during maintenance phase even though mean percentage of Joe’s on-task behavior was slightly decreased.

Joe

Before the assessment, the percentage of time on-task for Joe ranged from 15% to 48%, with a mean of 34%. On the assessment, he answered 9 out of 10 questions correctly, an accuracy rate of 90%. His on-task behavior data after taking the assessment, which ranged from 10% to 24%, with a mean of 17%, showed that the assessment had no apparent effect his on-task behavior. Overall, the percentage of Joe's time on-task during the baseline phase ranged from 10% to 48%, with a mean of 28% and a median of 24%. The baseline data evidenced a decelerating trend prior to the introduction of the self-observation intervention.

During the self-observation intervention, the data on Joe's percent of time on-task ranged from 50% to 100%, with a mean of 72% and a median of 74%. Joe's on-task behavior increased in level from 16% on the last day of the baseline condition to 82% on the first day of the intervention condition. On-task evidenced a slight downward trend for about the first half of the intervention, and then leveled off. Even though data during the intervention were variable, all data points were higher than the data points that were collected during the baseline phase. In addition, Joe reached 100% time on-task twice during the intervention. There were no overlap data in percentage of on-task behavior between the baseline and intervention phases.

As shown in Table 3, Joe's on-task behavior increased from a mean of 28% during the baseline condition to a mean of 72% during the intervention condition. During the maintenance condition, the data on Joe's percentage of on-task behavior ranged from 47% to 79%, with a mean of 64% and a median of 63%. The data were more stable than in other phases, and Joe's mean percentage of on-task behavior during the maintenance phase (64%) was higher than the mean percentage during the baseline phase (28%), but slightly lower than in the intervention phase (72%).

Chuck

The percentage of Chuck's time on-task ranged from 20% to 55%, with a mean of 35% before taking the assessment. On the assessment, he answered 10 out of 10 questions correctly, or a 100% accuracy rate. Chuck's on-task behavior data after taking the assessment, which ranged from 3% to 33% and had a mean of 19%, remained at pre-assessment level for two days, then evidenced a downward trend for the remaining two days of baseline. There were no immediately discernable effects on on-task attributable to the assessment Overall, Chuck's on-task behavior during the baseline phase ranged from 3% to 55%, with a mean of 31% and a median of 23.5%. The baseline data were was variable, but they resulted in a moderately decelerating trend prior to the introduction of the self-observation intervention.

During the self-observation intervention, the data on Chuck's percentage of time on-task ranged from 57% to 97%, with a mean of 78% and a median of 76%. As soon as the self-observation was implemented, Chuck's percentage of time on-task increased in level from 3% on the last day of the baseline condition to 75% on the first day of the intervention condition. The intervention data was variable, but all data points were higher than the data points that were collected during the baseline condition. That is, there was no overlap between the baseline and intervention data. Thus, Chuck's intervention provided a replication of the effects of the self-observation on on-task.

As shown in Table 3, Chuck's percentage of time on-task improved from a mean of 31% during the baseline phase to a mean of 78% during the intervention phase.

During the maintenance condition, the data on Chuck's percentage of time on-task ranged from 72% to 100%, with a mean of 88% and a median of 89%. Chuck's mean percentage of on-

task behavior during the maintenance phase (88%) was higher than his mean percentages of both the baseline phase (31%) and the intervention phase (78%).

Alex

Alex's on-task behavior was relatively stable for first 13 days of baseline, followed by an increase in on-task to high levels for four out of the next five days, followed by a downward trend. The data were relatively stable for the remaining 15 days of baseline. Before taking the assessment, the percentage of Alex's time on-task ranged from 33% to 100%, with a mean of 52%, Alex answered 10 out of 10 questions correctly on the assessment. After the assessment his on-task ranged from 25% to 45% with a mean of 35%. There was no evidence that the assessment affected his on-task percentage. Overall, the percentage of Alex's time on-task during the baseline phase ranged from 25% to 100%, with a mean of 50% and a median of 43%.

Intervention data on Alex's percentage of time on-task ranged from 69% to 100%, with a mean of 93% and a median 97%. After implementing the self-observation, the percentage of Alex's time on-task increased dramatically from 25% on the last day of the baseline condition to 96% on the first day of the intervention condition. The data points during the intervention phase were stable and above 90% save one day. Although there was some overlap baseline and the intervention data due to variability of the baseline, the intervention data clearly represent a different distribution than those of baseline, and as such evidence a second replication of the effects of the self-observation.

As shown in Table 3, the percentage of Alex's time on-task increased from a mean of 50% during the baseline phase to a mean of 93% during the intervention phase.

During the maintenance condition, the data on Alex's percentage of on-task behavior ranged from 90% to 100%, with a mean of 95% and a median of 94%. Alex's mean percentage

of time on-task during the maintenance phase (95%) was higher than in the baseline phase (50%) and the intervention phase (93%).

Table 3

Mean, Median, and Range Percent of Time on-task per Condition in the Resource Room.

Student		Baseline	Self-observation	Maintenance
Joe	Mean	28%	72%	64%
	Median	24%	74%	63%
	Range	10 - 48%	50 – 100%	47% - 79%
Chuck	Mean	31%	78%	88%
	Median	23.5%	76%	89%
	Range	3% - 55%	57 - 97%	72% - 100%
Alex	Mean	50%	93%	95%
	Median	43%	97%	94%
	Range	25% - 100%	69% - 100%	90% - 100%

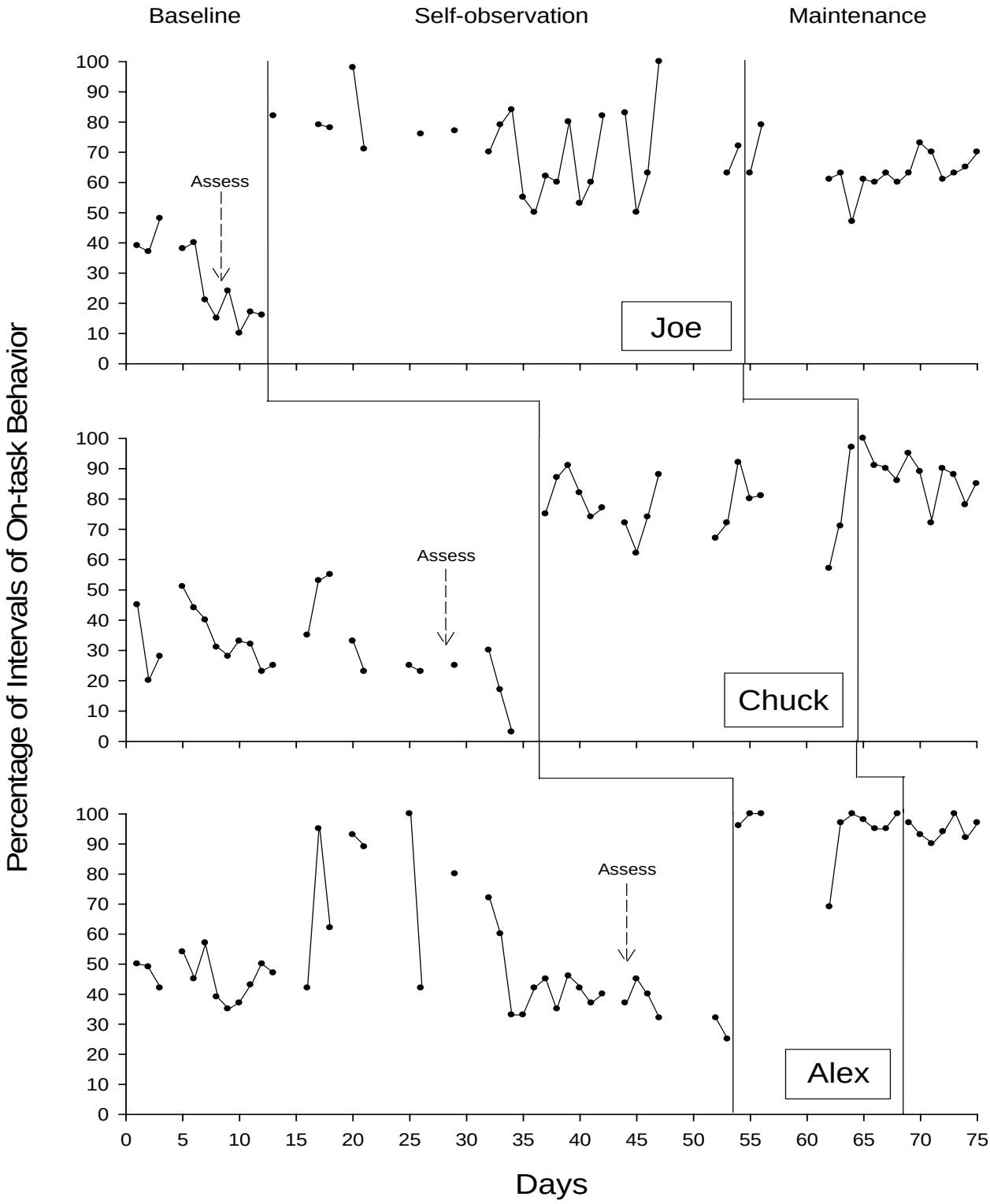

Figure 1. The percentage of intervals of on-task behavior during resource room seatwork for Joe, Chuck, and Alex during baseline, self-observation, and maintenance phases. Each student's knowledge of on-task behavior was assessed during baseline. Connected data points represent consecutive days of data collection.

The Percentage of Time on-task in the General Education Classrooms

Figure 2 depicts each participant's percentage of time on-task across baseline, self-observation and maintenance phases. Table 4 lists each participant's mean, median, and range of percent of time on-task in the general education classrooms, per phase.

Mean percentages of time on-task for Joe, Chuck, and Alex in the general education classrooms were 26%, 21%, and 43%, respectively, during the baseline phase. During this phase, Joe and Chuck displayed considerably low percentages of time on-task, and Alex sometimes showed a dramatically higher percentage of time on-task. During the self-observation intervention, mean percentages of time on-task for Joe, Chuck, and Alex were 62%, 60%, and 76%, respectively. All students demonstrated increased mean percentages of time on-task from the first phase to the second phase. The difference of mean percentages of time on-task between the intervention and the baseline for Joe, Chuck, and Alex were 36%, 39%, and 33%, respectively. During the maintenance phase, mean percentages of time on-task for Joe, Chuck, and Alex were 57%, 71%, and 82%, respectively. All students maintained higher levels of mean percentage of time on-task, which each achieved during the intervention phase, during the maintenance phase in the general education classrooms.

Joe

The percentage of Joe's time on-task during the baseline phase ranged from 5% to 48%, with a mean of 26% and a median of 24.5%. The data showed variability, but they resulted in a decelerating trend before the introduction of the self-observation intervention.

During the self-observation intervention, the data on Joe's percentage of time on-task ranged from 0% to 98%, with a mean of 62% and a median of 61%. Joe's percentage of time on-task increased in level from 25% on the last day of the baseline condition to 43% on the first day

of the intervention condition. On the second day of the intervention phase, his percent of on-task behavior reached 74%. The intervention data were variable, but only 4 of 25 days (16%) overlapped with the highest baseline datum point. As shown in Table 5, Joe's mean percentage of time on-task increased from 26% during the baseline phase to 62% during the intervention phase.

During the maintenance condition, the data on Joe's percentage of time on-task ranged from 43% to 82%, with a mean of 57% and a median of 56%. Joe's mean percentage of on-task behavior during the maintenance phase (57%) was higher than during his baseline phase (26%), but slightly lower than during his intervention phase (62%).

Chuck

Chuck's percentage of time on-task during the baseline phase ranged from 0% to 47%, with a mean of 21% and a median of 19.5%. The baseline data were variable. During the intervention phase, Chuck's percentage of time on-task ranged from 57% to 97%, with a mean of 78% and a median of 76%. The percentage of Chuck's time on-task increased in level from 3% on the last day of the baseline condition to 61% on the first day of the intervention condition, reaching 100% on the 6th day of the intervention phase in the general education classroom. The intervention data were also variable, but clearly at a higher level than those of baseline. There was a 17% overlap data in the percentage of on-task behavior between the baseline and the intervention phases.

During the maintenance condition, the data on Chuck's percentage of on-task behavior ranged from 64% to 80%, with a mean of 71% and a median of 70%. Chuck's mean percentage of on-task behavior during the maintenance phase (71%) was higher than both his mean

percentage of time on-task during the baseline phase (21%) and the intervention phase (60%). None of the data points overlapped with those of baseline.

Alex

The percentage of Alex's time on-task during the baseline phase ranged from 0% to 97%, with a mean of 50% and a median of 43%. His data was highly variable.

The data on Alex's percentage of time on-task during the self-observation ranged from 63% to 83%, with a mean of 76% and a median of 78%. The percentage of Alex's time on-task increased in level from 38% on the last day of the baseline condition to 80% on the first day of the intervention condition. There was a 100% overlap in data in the percentage of on-task behavior between the baseline and intervention phases. However, all data points during the intervention phase were higher than 60%, whereas only four data points (11%) during baseline were greater than 60%.

As shown in Table 5, Alex's on-task behavior increased in level from a mean of 43% during the baseline phase to a mean of 76% during the intervention phase.

During the maintenance condition, the data on Alex's percentage of time on-task ranged from 75% to 92%, with a mean of 82% and a median of 80%. The data showed a decelerating trend. However, Alex's mean percentage of on-task behavior during the maintenance phase (82%) was higher than both his mean percentage during baseline phase (43%) and the intervention phase (76%).

Table 4

Mean, Median, and Range Percentage of Time on-task per Condition and Participant in the General Education Classrooms

Student		Baseline	Self-observation	Maintenance
Joe	Mean	26%	62%	57%
	Median	24.5%	61%	56%
	Range	5 - 48%	0 - 98%	43 - 82%
Chuck	Mean	21%	60%	71%
	Median	19.5%	58%	70%
	Range	0 - 47%	37 - 91%	64 - 80%
Alex	Mean	43%	76%	82%
	Median	43%	78%	80%
	Range	0 - 97%	63 - 83%	75 - 92%

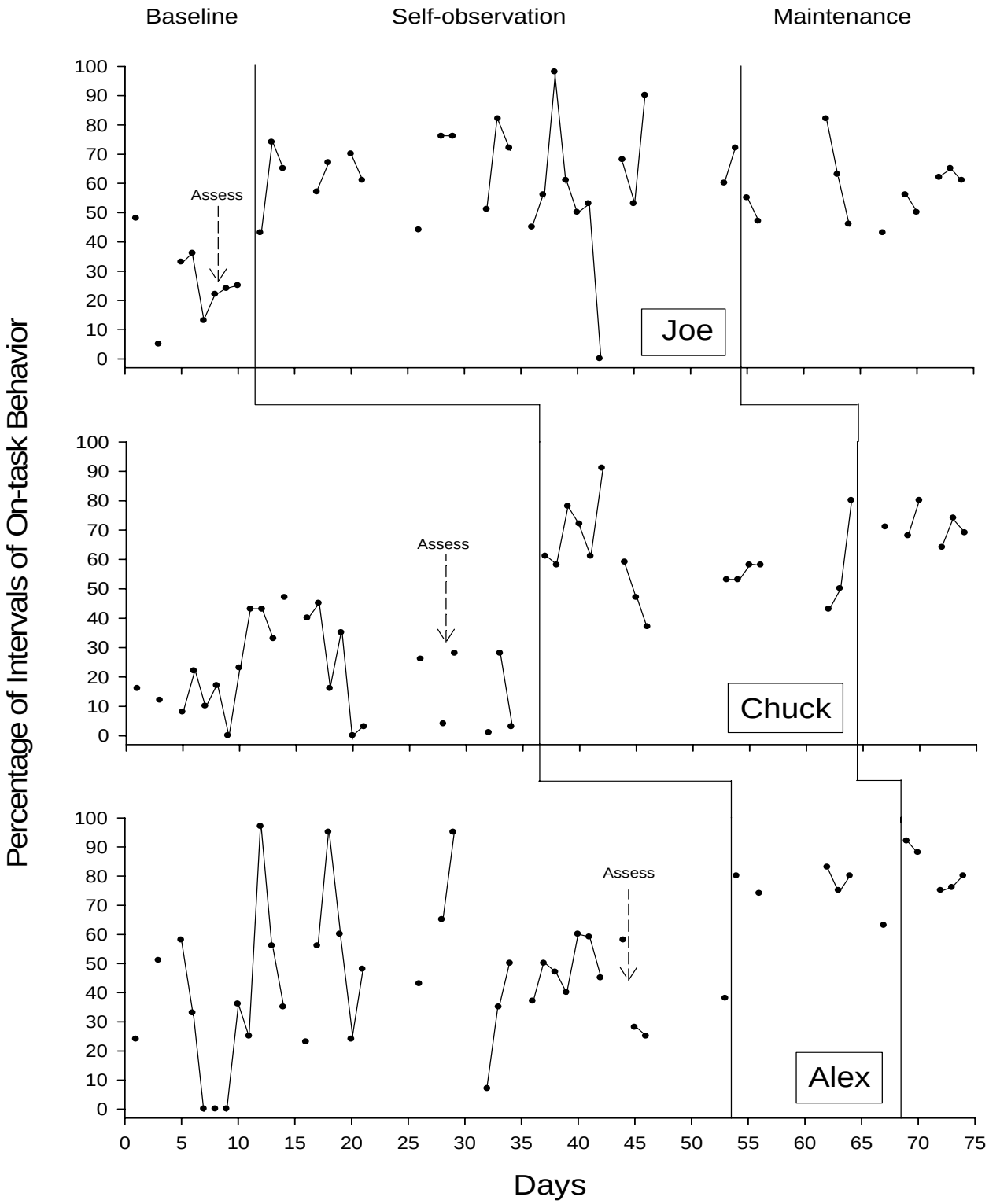

Figure 2. The percentage of intervals of on-task behavior during general education classroom seatwork for Joe, Chuck and Alex during baseline, self-observation, and maintenance phases. Each student' knowledge of on-task behavior was assessed during baseline. Connected data points represent consecutive days of data collection.

Academic Achievement Results

Figure 3 presents the mean percentages for reading, language arts, and math for Joe, Chuck, and Alex and table 5 depicts the mean and range of each participant's percent correct of reading, language arts and math assignments across the phases of the study.

Joe

Joe's mean percentage correct on reading assignments was 83% (ranging from 60% to 90%), 90% (ranging from 75% to 95%), and 89% (ranging from 85% to 95%) for baseline, intervention and maintenance phases, respectively. For language arts, percent correct was 85% (ranging from 75% to 95%), 84% (ranging from 75% to 95%), and 85% (ranging from 80% to 90%). For math, percent correct was 85% (ranging from 75% to 90%), 77% (ranging from 65% to 95%), and 84% (ranging from75% to 90%).

Joe showed a 7% increase for reading, a 1% decrease for language arts, and an 8% decrease for math from baseline to intervention and a 6% increase for reading, no change for language arts, and a 1% decrease for math from baseline to maintenance. Comment: add in each subject's description what the changes were from baseline to intervention to maintenance.

Chuck

Chuck's mean percentage correct on reading assignments was 85% (ranging from70% to 95%), 90% (ranging from 85% to 98%), and 85% (ranging from 75% to 95%) for baseline, intervention, and maintenance phases, respectively. For language arts, percent correct was 85% (ranging from75% to 95%), 85% (ranging from 75% to 95%), and 82% (ranging from 65% to 95%). For math, percent correct was 75% (ranging from 65% to 80%), 85% (ranging from 75% to 95%), and 80% (ranging from 65% to 90%).

Chuck demonstrated a 5% increase each for reading and language arts, and a 10% increase for math from baseline to intervention and no change for reading, a 3% decrease for language arts, and a 5% increase for math from baseline to maintenance.

Alex

Alex's mean percentage correct on reading was 92% (ranging from 80% to 100%), 90% (ranging from 85% to 95%), and 95% (ranging from 90% to 100%) for baseline, intervention, and maintenance phases, respectively. For language arts, percent correct was 85% (ranging from 65% to 95%), 80% (ranging from 75% to 85%), and 85% (consistently 85%). For math, percent correct was 85% (ranging from 65% to 95%), 83% (ranging from 75% to 90%), and 85% (ranging from 80% to 90%).

Alex showed a 2% decrease for reading, a 5% decrease for language arts, and a 2% decrease for math from baseline to intervention and a 3% increase for reading and no changes for language arts and math from baseline to maintenance.

Table 5

Mean and Range of Percent Correct of Reading, Language Arts, and Math Assignments per Condition and Participant

Student	Content area	Baseline	Intervention	Maintenance
Joe	Reading	83% (60% - 90%)	90% (75% - 95%)	89% (85% - 95%)
	Language arts	85% (75% - 95%)	84% (75% - 95%)	85% (80% - 90%)
	Math	85% (75% - 90%)	77% (65% - 95%)	84% (75% - 90%)
Chuck	Reading	85% (70% - 95%)	90% (85% - 98%)	85% (75% - 95%)
	Language arts	85% (75% - 95%)	85% (75% - 95%)	82% (65% - 95%)
	Math	75% (65% - 80%)	85% (75% - 95%)	80% (65% - 90%)
Alex	Reading	92% (80% - 100%)	90% (85% - 95%)	95% (90% - 100%)
	Language arts	85% (65% - 95%)	80% (75% - 85%)	85% (85% - 85%)
	Math	85% (65% - 95%)	83% (75% - 90%)	85% (80% - 90%)

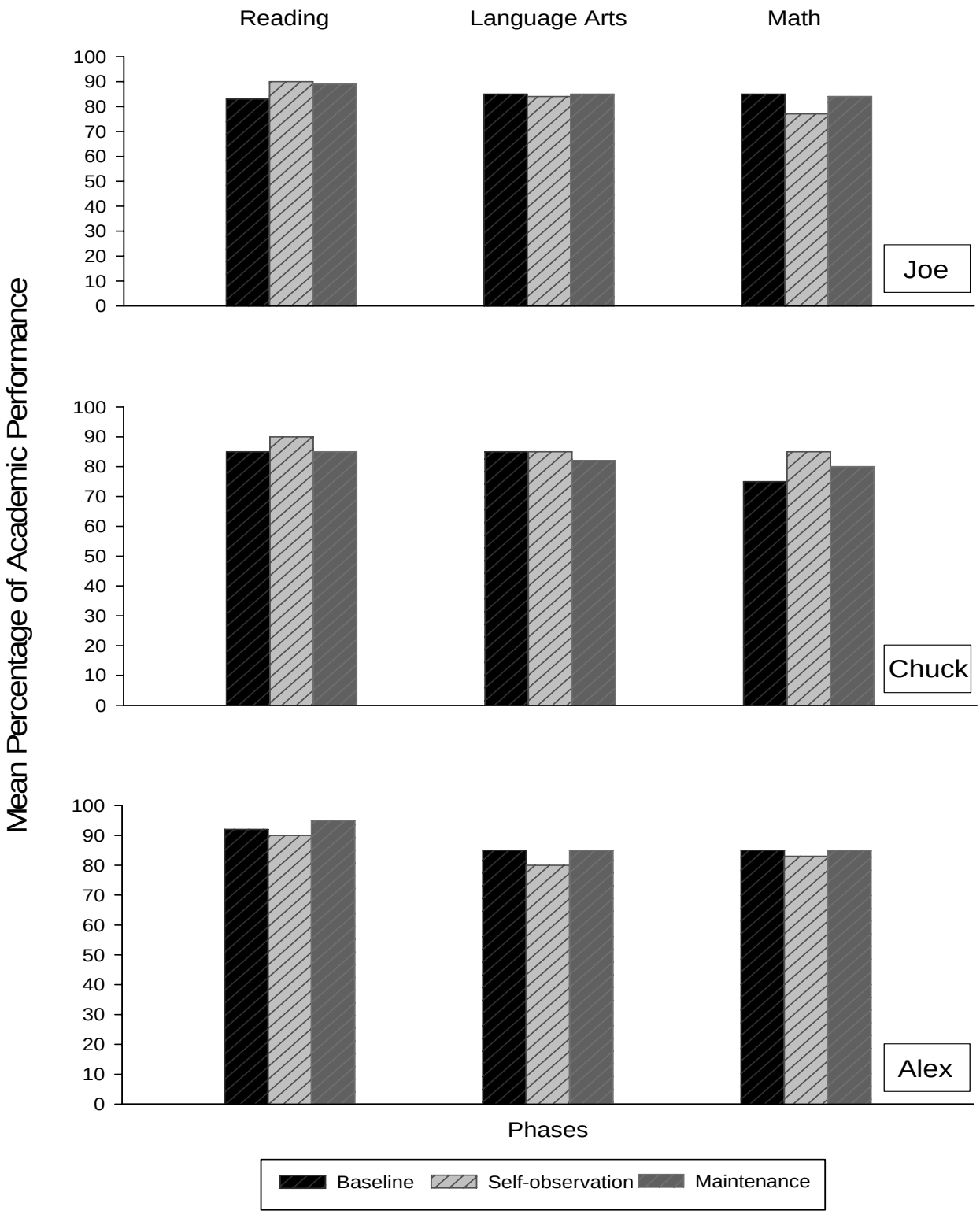

Figure 3. Mean percentage correct on reading, language arts, and Math assignments for Joe, Chuck, and Alex during baseline, self-observation, and maintenance phases.

CHAPTER 5

DISCUSSION

The main purpose of this study was to examine the effectiveness of self-observation using video, which is a type of self-modeling, on increasing time on-task during independent seatwork in the resource room. In addition, it was also evaluated whether the effect of the treatment was generalized during independent seatwork in the general education classrooms and how improved on-task behavior affected the academic performance of students with Specific Learning Disabilities (SLD). In this chapter, the summary of the research outcomes, the limitations of the study, and recommended future research are discussed.

Summary of Results

Regarding the first research question, the results of this study indicate that students did increase their percentage of time on-task in the resource room after watching the edited videotapes that depict only their on-task behavior during independent seatwork. All students showed improvement on on-task behavior during independent seatwork in the resource room. Joe, Chuck, and Alex exhibited 44%, 47%, and 43% increases, respectively, between their mean percentages on the baseline data and the intervention data.

The second research question asked if the assessment of knowledge about on-task and off-task behavior would affect the students' on-task behavior. According to the results, the assessment itself was found to have no discernable effect on the students' on-task behavior.

The third research question asked whether the students' level of on-task behavior achieved during the self-observation intervention in the resource room would maintain after the

intervention was terminated. During the maintenance phase, Chuck and Alex maintained levels of on-task behavior similar to the levels they achieved during the intervention phase. Joe's maintenance phase on-task was slightly lower than his intervention phase on-task, but clearly above that of baseline levels. Joe, Chuck, and Alex showed an 8% decrease, a 10% increase, and a 2% increase, respectively, between their mean percentages on the intervention data and theirs mean percentages on the maintenance data. All students demonstrated higher levels of on-task behavior compared to the baseline phase. Joe, Chuck, and Alex demonstrated 36%, 57%, and 45% increases, respectively, in time staying on-task between their mean percentages on the baseline data and their mean percentages on the maintenance data.

The fourth research question asked whether the students' academic achievement, as measured by percent correct of assigned work, would improve as their on-task behavior increased. It was difficult to find a relationship between the students' academic achievement and their on-task behavior since there was no clear difference in levels of academic performance (reading, language arts, and math) between each condition. Joe showed a 7% increase (reading), a 1% decrease (language arts), and an 8% decrease (math) between his mean percent grade during the baseline and the intervention phases. Chuck demonstrated a 5% increase each for reading and language arts, and a 10% increase for math between his mean percent grade during the baseline and the intervention phases. Alex showed a 2% decrease (reading), a 5% decrease (language arts), and a 2% decrease (math) between his mean percent grade during the baseline and the intervention phases. Since the students' mean academic performances were relatively high during the baseline phase, it would be difficult to identify any actual achievement differences between the phases. Thus, baseline scores across academics represent a ceiling effect.

The fifth research question asked whether the self-observation using video would be associated with gains in the general education settings, which were not represented in the videos. In the general education classrooms, all students demonstrated improved levels of on-task behavior during independent seatwork, although the data across students were variable. Joe, Chuck, and Alex exhibited 36%, 39%, and 33% increases, respectively, between their mean percentages on the baseline data and the intervention data. In addition, Chuck and Alex maintained their increased on-task behavior after removing the self-observation intervention. Joe, Chuck, and Alex showed a 5% decrease, an 11% increase, and a 6% increase, respectively, between their mean percentages on the intervention data and the maintenance data. Due to the high variability of Alex's baseline data, there was significant overlap with the data take during intervention. Too, his general education classroom data during the intervention phase were collected for a short period (6 days). However, 5 of 6 of the intervention phase data points were above 70%, while only 3 of the baseline data points were above 65%. Thus, the intervention seems to have decreased the variability of the on-task data in a positive direction.

Overall, self-observation using video was an effective intervention for improving the students' on-task behavior in both general and special education classrooms. However, increased time on-task was not related to the changes in level of academic performance.

Limitations and Future Research

The resource room is approximately half the size of the general education room, and there were about 5 to 6 students in the classroom. To minimize the reaction to interobservers' presence in the resource room, the researcher videotaped the students during independent seatwork for the purpose of observation. Because the students were used to being videotaped, the reaction to videotaping itself may have been be minimum. However, the daily direct observation

was very time-consuming during independent seatwork in the general education classrooms, as each student was in a different general education setting and had a different classroom schedule. In addition, it was also hard to observe the students consecutively due to students' absences, holidays, school breaks, severe weather, and testing periods.

The nature of multiple baseline design across students is such that the self-observation intervention was implemented at a different time for each student. Therefore, Chuck and Alex had to remain in the baseline phase for a longer period of time than John to obtain the stabilized data. In addition, John was exposed to the self-observation longer than were other two students, and he may have been less motivated at the end of the intervention phase because he frequently needed to be redirected while watching the video during last four weeks of the intervention phase.

Comparison of academic performance between phases is another limitation because the period between conditions was different for each student. For instance, there was a greater amount of baseline data on Joe's academic performance than there was intervention data for him. In addition, there was a greater amount of baseline data on Alex's academic achievement than there was during the intervention and maintenance phases. That is, the intervention and maintenance data for Alex were very limited for comparison. Therefore, it is suggested that a pretest and posttest method would provide a more appropriate, or additional, comparison in future research. Moreover, as noted, the comparison of academic performances (reading, language arts, and math) between the conditions was difficult due to high mean scores during the baseline phase (i.e., ceiling effect).

In conclusion, the results of the study provide evidence that self-observation using video can increase students' time on-task. Nonetheless, further replications are essential to support the

effect of self-observation using video to improve on-task behavior of students with SLD or students who are at risk and to reduce the limitations discussed above. Furthermore, more future research may focus on students of diverse ages, ethnicities, and disabilities to investigate the generality of the intervention, as the students for this study were not selected at random. Moreover, it would be interesting to compare the effectiveness of the self-observation intervention between students with and without disabilities using a variety of videos in different settings.

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Appendix A

CATAGORIES OF GEORGIA ELIGIBILITY FOR SPECIFIC LEARNING DISABILITIES

Definition

(1) Specific learning disability is defined as a disorder in one or more of the basic psychological processes involved in understanding or in using language, spoken or written, that may manifest itself in an imperfect ability to listen, think, speak, read, write, spell or do mathematical calculations. The term includes such conditions as perceptual disabilities, brain injury, minimal brain dysfunction, dyslexia and developmental aphasia. The term does not apply to students who have learning problems that are primarily the result of visual, hearing or motor disabilities, intellectual disabilities, emotional or behavioral disorders or environmental, cultural or economic disadvantage.

(2) This definition is intended to distinguish a specific learning disability from a general learning deficit or from underachievement. The term specific learning disability would, therefore, exclude those students whose overall limited cognitive ability results in pervasive learning problems. A specific learning disability is characterized by a pattern of strengths and weaknesses in performance rather than general academic weaknesses. While most students with specific learning disabilities have average or above average intelligence, some students with specific learning disabilities may score below the average range on tests of intelligence. For these students, there shall be thorough documentation that eligibility criteria have been met.

(3) The student with a specific learning disability has one or more serious academic deficiencies that are significantly discrepant with measured ability. The student's need for academic support alone is not sufficient for eligibility and does not override the other established requirements for determining eligibility.

(4) The student who is eligible for services under the category of specific learning disabilities exhibits a deficit in basic psychological processes which is manifested in a severe discrepancy between actual achievement and expected performance.

Deficits in basic psychological processes in the definition typically include problems in attending, discrimination/perception, sensory integration, organization, sequencing, short-term memory, long-term memory and/or conceptualization/reasoning. Once a deficit in basic psychological processes is documented, there shall be evidence that the processing deficit has impaired the student's mastery of the academic tasks required in the regular curriculum. An achievement deficit exists when there is a severe discrepancy between current achievement and estimated measured ability and when the current achievement is below the student's grade placement level.

(5) Students whose achievement in classroom academics is not commensurate with their abilities in academic areas may be considered as having a specific learning disability even though they are progressing from grade to grade.

Eligibility and Placement

(1) A team may determine that a child has a specific learning disability if:

(a) The child does not achieve commensurate with his or her age and ability levels in one or more of the areas listed in (b) below if provided with learning experiences appropriate for the student’s age and ability level;

(b) The team finds that a student has a severe discrepancy between achievement and intellectual ability in one or more of the following areas:

(i) Oral expression- use of spoken language to communicate ideas (as opposed to speech disorders).

(ii) Listening comprehension-ability to understand spoken language at a level commensurate with the student's age and ability levels.

(iii) Written expression - ability to communicate ideas effectively in writing with appropriate language.

(iv) Basic reading skills-ability to use sound/symbol associations to learn phonics in order to comprehend the text.

(v) Reading comprehension-ability to understand the meaning of written language.

(vi) Mathematics calculation-ability to process numerical symbols to derive results, including, but not limited to, spatial awareness of symbol placement and choice of sequence algorithms for operations required.

(vii) Mathematics reasoning-ability to understand logical relationships between mathematical concepts and operations, including, built not limited to, correct sequencing and spatial/symbolic representation.

Appendix B

Parental Permission Form

I agree to allow my child, _____, to participate in a research study titled, "The Influence of Positive Self-Review Using Video on On-task and Academic Achievement", which is being conducted as a thesis research by Su Hyun Kim, from the Department of Communication Sciences & Special Education at the University of Georgia (706-614-7254) under the direction of Dr. Tom Clees, Communication Sciences & Special Education Department, University of Georgia, (706-542-4577). I do not have to allow my child to be in this study if I do not want to. My child can refuse to participate and can stop taking part at any time without giving any reason, and without penalty. I can request to have the results of the participation, to the extent that it can be identified as my child's, removed from the research records or destroyed.

The following points have been explained to me (and my child):

1) The reason for the research is to find out if observing on-task behavior of themselves helps students stay on-task and increase academic skills (accuracy of work). Students who participated in the study may stay more on-task and improve academic skills.
2) If I allow my child to take part, my child will be videotaped during work times and will watch the videotapes that only depict his/her appropriate on-task behavior during classes (doing seat-work). The process will take place during free study time and will not interfere with any lessons. It will take approximately three to five minutes for the activity (watching the videotapes) and a total duration for participation will be approximately two or three times per week for three to six months. Additionally, the researchers will collect copies of my child's class work and responses to assess for accuracy and progress. Participation or non-participation will not affect the participant's grade or status in the class. The videotapes and data sheets will be destroyed at the end of the study, which will be no later than July 31st, 2007.
3) The research is not expected to cause any harm or discomfort. My child can quit at any time.
4) No risks are foreseen.
5) The results of this participation will be confidential, and will not be released in any individually identifiable form without my prior consent, unless otherwise required by law. My child's identity will be coded, and all data will be kept in a secured location.
6) The researcher will answer any questions about the research, not or during the course of the project, and can be reached by telephone at: 706-614-7254. I may also contact the professor advising the research, Dr. Tom Clees, Communication Sciences & Special Education Department, at 542-4577.

I understand the study procedures described above. I agree to allow my child to take part in this study. I have been given a copy of this form to keep.

Su Hyun Kim _____ _____
Name of Researcher *Signature* *Date*

Telephone: 706-614-7254
Email: sukim@uga.edu

_____ _____ _____
Name of Parent or Guardian *Signature* *Date*

Please sign both copies, keep one and return one to the researcher.

Additional questions or problems regarding your child's rights as a research participant should be addressed to The Chairperson, Institutional Review Board, University of Georgia, 612 Boyd Graduate Studies Research Center, Athens, Georgia 30602-7411; Telephone (706) 542-3199; E-Mail Address IRB@uga.edu

Appendix C

DATE _____

Minor Assent Form

Dear Participant,

You are invited to participate in my research project titled, "The Influence of Positive Self-Review Using Video on On-task and Academic Achievement." Through this project I am learning about how boys and girls can increase on-task behavior such as working on the assignment, looking at the teacher/the assigned task, asking questions that are related to the lesson, and raising their hands when they have the questions.

If you decide to be part of this, you will allow me to videotape you during work times and watch the videotapes. You will allow me to watch you and take notes while you are doing assignments in the classroom. Your participation in this project will not affect your grades in school. I will not use your name on any papers that I write about this project. However, because of your participation you may stay more on-task and improve academic skills such as reading, writing, or math. I hope to learn something about improving on-task behavior and academic skills that will help other children in the future.

If you want to stop participating in this project, you are free to do so at any time. You can also choose not to answer questions that you don't want to answer.

If you have any questions or concerns you can always ask me or call my teacher, Dr. Tom Clees at the following number: 706-542-4577.

Sincerely,

Su H. Kim
Communication Sciences & Special Education Department
University of Georgia
Contact Number: 706-614-7254

I understand the project described above. My questions have been answered and I agree to participate in this project. I have received a copy of this form.

_____
Signature of the Participant/Date

Please sign both copies, keep one and return one to the researcher.

Additional questions or problems regarding your rights as a research participant should be addressed to The Chairperson, Institutional Review Board, University of Georgia, 612 Boyd Graduate Studies Research Center, Athens, Georgia 30602-7411; Telephone (706) 542-3199; E-Mail Address IRB@uga.edu

Appendix D (On-task behavior data sheet)

Observer:	**Date:**	**Setting:**	**Phase:**

Student:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	/ = % %
Phase:																					
Start time:																					
Stop time:																					

Student:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	/ = %
Phase:																					
Start time:																					
Stop time:																					

Student:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	/ = %
Phase:																					
Start time:																					
Stop time:																					

Student:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	/ = %
Phase:																					
Start time:																					
Stop time:																					

Appendix E (Task achievement data sheet)

Student: _____

Grade: _____

Week	Date	Phase	Content areas		
			Language Arts (General Ed Class)	Reading (Resource Room)	Math (General Ed Class)

Appendix F (Assessment of on-task and off-task behavior)

Check on-task behavior

Walking around the room without permission ( )

Doodling on paper ( )

Looking around the room ( )

Working on the assigned task ( )

Following teacher directions ( )

Playing with pencils and papers ( )

Eyes on work ( )

Asking questions that are not related to the task ( )

Raising his hand if he had a question ( )

Talking to classmates ( )

Appendix G **(**Positive Self-review: Treatment Integrity Checklist)

Student: _____ Date/Session Number: _____/_____/
Observer: _____

First day of intervention- Procedural Items 1- 10 ---------- ( )
Any day after first day of intervention - Procedural Items 4 – 10 ---------- ( )

	Procedural Items	**Integrity** **+ = Yes – = No**
1	The researcher (R) introduces the video instruction: • asks the student whether he remembers being videotaped, or notes the taping to the student	
2	• Explains that student will be watching video of himself working (no positive value of "working" is noted by R)	
3	• R states length (minutes) of video to student	
4	The researcher shows video • R instructs student to begin watching video, starts video	
5	• R sits next to the student quietly and observes without discussing content of video	
6	• R redirects student to watch video if student is off task for 3 or more consecutive seconds (POTENTIAL REACTIVITY)	
7	Closure: • R states when the video has ended	
8	• R thanks/praises student for watching video	
9	• R instructs student to return to scheduled activity	
10	R responds to any inquiries about the purpose of the video/viewing with a neutral statement (e.g., "I just want you to watch yourself working") (POTENTIAL REACTIVITY)	