

APPLYING SELF-RECORDING AND SELF-GRAPHING SKILLS TO HOMEWORK

by

TERRESA HUBACEK SHUBERT
(Under the Direction of Cynthia O. Vail)

ABSTRACT

The professional literature promotes self-monitoring procedures as effective tools in producing, maintaining, and generalizing positive in-class behavior changes in students with Learning Disabilities (LD) and Emotional/Behavioral Disorders (EBD). The purpose of this study was to analyze the effectiveness of two individual self-monitoring procedures, self-recording and self-graphing, when used with the spelling homework assignment of four students classified as EBD. The self-monitoring skill interventions were staggered across participants beginning with the self-recording tool. The next phase introduced was the combination of the self-recording and self-graphing interventions, and finally, student choice completed the three experimental phases. A multiple baseline across subjects design was implemented to evaluate the effectiveness of the interventions. Results indicate self-recording and self graphing are useful tools for increasing homework completion levels for students with EBD. Homework accuracy percentages also increased and overall student achievement levels, as evaluated by weekly quizzes, improved.

INDEX WORDS: Self-Recording, Self-Graphing, Homework, Emotional Behavioral Disorders, Achievement.

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TERRESA HUBACEK SHUBERT

BA, Piedmont College, 1984

M.Ed., North Georgia College, 1996

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TERRESA HUBACEK SHUBERT

Major Professor:	Cynthia O. Vail
Committee:	Shanna Burke Thomas Clees Phil J. McLaughlin Arthur Horne

Electronic Version Approved:

Maureen Grasso
Dean of the Graduate School
The University of Georgia
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CHAPTER 1

INTRODUCTION & LITERATURE REVIEW

Homework has been an important issue over the years receiving considerable attention in the professional literature (DiGangi, Maag, & Rutherford, 1991; Kelley & Kahle, 1995; Prater, Joy, Chilman, Temple, & Miller, 1991; Salend & Gajria, 1995; Stormont-Spurgin, 1997). Research indicates that the greater the amount of time a student is engaged in academic tasks the higher the achievement level, especially for students in middle school and high school (Kelley & Kahle, 1995; Mercer & Mercer, 1993; Turner, 1997). Teachers assign homework to increase this academic engagement time. Typically homework is assigned on a daily basis in multiple classes. The students are to complete homework correctly, hand it in on time, and acquire knowledge from the assignment.

Some students have tremendous problems completing homework. A factor associated with high levels of homework accuracy is the ability of the student to self-regulate his or her behavior. Students experience frustration when multiple homework assignments are given and/or their ability to remember to complete the homework is low (Bryan & Sullivan-Burstein, 1998; Cooper, Lindsay, Nye, & Greathouse, 1998; Stormont-Spurgin, 1997; Trammel, Schloss, & Alper, 1994; Turner, 1997). Students with high incidence disabilities, such as Emotional and Behavioral Disorders (EBD), Attention Deficit with/without Hyperactivity (ADHD or ADD) and Learning Disabilities (LD) experience with disabilities have difficulty completing homework assignments due to high levels of distractibility and their lack of knowledge on self-monitoring procedures, (Bryan & Sullivan-Burstein, 1998; Trammel, Schloss, & Alper, 1994),

disorganization, or lack of skills required to complete the homework assignments within the allotted time frame.

Since the passage of the Education for All Handicapped Children Act of 1975 (PL 94-142), special educators have emphasized skill building for preparing students with mild disabilities to be more successful in general education classes (Prater, Hogan, & Miller, 1992). The concept of least restrictive environment mandated by P.L. 94-142 and reinforced through PL 105-17 (IDEA 1997) has caused a more concerted effort by educators to place students with mild disabilities in general education classes for access to the general education curriculum. Many general education teachers have not been prepared to implement individual behavior management procedures for students with special needs. Therefore, by providing self-monitoring skills instruction, students are empowered to manage their own behavior. It is likely that the acceptance of students with special needs into general education settings by their peers and teachers will increase as they become more competent in managing their own behaviors.

The ability to regulate one's behavior is an essential skill in society. The ability to self-regulate behavior is particularly important for students with LD and EBD (Gajria & Salend, 1995; Kelley & Kahle, 1995; Reid & Harris, 1993). On-task behaviors and academic performance levels within the classroom have increased when self-monitoring skills were taught within the class setting (DiGangi, Maag, & Rutherford, 1991; Gajria & Salend, 1995; Harris, Graham, Reid, McElroy, & Hamby, 1994; Maag, Reid, & DiGangi, 1993; McLaughlin, 1994; Prater, Joy, Chilman, Temple, & Miller, 1991; Reid & Harris, 1993; Trammel, Scholss, & Alper, 1994).

Most students with mild disabilities experience problems allocating and maintaining attention to homework assignments (Gajria & Salend, 1995). The current study was designed to evaluate the effectiveness of two self-monitoring procedures, self-recording and self-graphing, on homework accuracy percentages. These strategies have proven effective when used to increase completion of in-class assignments (DiGangi &

Maag, 1992), but they have not been widely tested in conjunction with homework assignments. The educational literature is rich with research using single-subject designs to explore the use of self-monitoring for on-task behaviors and for effectively increasing productivity levels for in-class assignments. Few empirical research studies involve self-monitoring linked to out-of-class assignments. The purpose of this study was designed to fill this research void on the topic of use of self-recording and self-graphing with regards to homework of students with emotional and behavioral disorders.

Reactions to homework

Homework causes a variety of reactions from teachers, students and parents. Homework proponents agree that homework increases academic achievement, encourages students to learn outside of the classroom, and involves parents in the educational process (Cooper & Nye, 1994). Those opposed to homework assignments have raised concerns such as the negative effects that homework instills in youth, including fostering academic burnout, promoting negative attitudes toward school, denying students access to leisure time, and even confusing parents and creating disharmony at home (Cooper & Nye, 1994). The majority of studies on the values of homework have focused on the effects of homework on the school performance of students within the general education classroom (Cooper, 1989; Cooper & Nye, 1994; Turner, 1997). However, research is beginning to examine homework for students with mild disabilities. Gajria and Salend (1995) confirmed teachers' and parents' beliefs that homework difficulties of students with mild disabilities stem from the students' deficits in homework practices. Many of these deficits include a negative attitude toward school and an external locus of control. Gajria and Salend (1995) found that many students with LD experienced problems in allocating and maintaining attention to their homework assignments. Structuring the homework process for students with mild disabilities increases students' homework completion rates (Gajria & Salend, 1995). One

intervention that has demonstrated potential for instilling self-regulation skills in students with mild disabilities is self-monitoring (Lloyd & Landrum, 1990).

Teachers can increase students' homework completion rates by varying the amount and type of homework assignments. Research suggests that teachers should assign homework that students have a reasonable probability of completing correctly, so that assignments foster proficiency in or maintenance of skills (Epstein, Polloway, Foley, & Patton, 1993). Teachers can promote and display positive attitudes toward homework by discussing with students the value of homework and explaining how homework affects their knowledge base and their grades. Teachers can and should try to instill views of homework as a positive strategy for improving learning. However, students are responsible for completing the assignments.

Homework can also serve as an informational tool between parents and teachers communicating what students are learning in class. Teachers and parents need to communicate periodically concerning homework assignments, student homework progress, and the impact of homework on the student's grade. But, homework is viewed as a tool for increasing insight into the student's school activities.

Because many students, with and without disabilities, lack study and organizational skills, they need to receive specific instruction in the areas of task planning, organizing, self-monitoring, and time management. One important strategy that students need to learn to improve is maintaining an assignment notebook in which they can record homework assignments (Archer, 1988; Salend, 1994; Stormont-Spurgin, 1997). Students use the homework assignment book to record the specifics of the assignment (including due dates) and the number of assignments completed. The use of such self-recording, self-evaluation, and graphing procedures can be effective in increasing the number of homework assignments completed (Kelley & Kahle, 1995; Struyk, Cole Bursuck, Epstein, & Polloway, 1996; Trammel, Schloss, & Alper, 1994).

Self-Monitoring

Self-monitoring was originally used as a non-intrusive clinical data collection technique, but it has also been used to manage students' social and academic behaviors in schools (Carr & Punzo, 1993; Lazarus, 1993; Reid, 1996; Webber, Scheuermann, McCall, & Coleman, 1993). Based on early successes with non-disabled populations (Hallahan, Lloyd, & Stoller, 1982; Hallahan, & Sapona, 1982), investigators have begun research on populations with disabilities. Self-monitoring procedures move students away from external behavior controls and toward self-regulation by having the students actively take responsibility for their own behavior. Self-monitoring refers to the act of recording or rating one's own behavior. There are two types of self-monitoring. First, individuals observe or assess their own behavior. They ask themselves "Did I...?" they must decide if a certain behavior has occurred. Second, the student records the occurrence of that behavior (Nelson & Hayes, 1981; Prater, 1994; Snider, 1987; Webber, et al., 1993). Self-monitoring generally consists of a package of three groups of interventions: (1) self-recording, (2) self-evaluation, (3) self-graphing (Nelson, Smith, Young, & Dodd, 1991; Smith, 1989). These strategies have been used successfully in the remediation of a variety of classroom-based problem behaviors and across diverse populations (Bryan, Sullivan-Burstein, 1998; DiGangi, Maag, & Rutherford, 1991; Gajria & Salend, 1995; Maag, Reid, & DiGangi, 1993; McLaughlin, 1984; Nelson, et al., 1991; Prater, Joy, Chilman, Temple, & Miller, 1991; Reid & Harris, 1993; Smith, Young Nelson, & West, 1992; Trammel, Schloss, & Alper, 1994).

So why is it so important for students with mild disabilities to be able to exhibit self-monitoring skills? What effect does self-monitoring have on the academic success of the student? Once taught to self-regulate the completion of homework assignments will this behavior generalize to other settings? The answer to these questions could lie in students' ability to learn to self-manage their behavior. The ability to regulate personal

behaviors is perceived as a highly valued skill within the general education setting. It is also viewed as a critical element of success by society.

The rationale for teaching self-monitoring skills to students is compelling. When students monitor and manage their own behavior and academic performance, teachers are able to devote more time to teaching and less time to class-management. Many researchers have demonstrated the effectiveness of self-monitoring procedures on increasing student on-task behavior within the classroom (DiGangi, Maag & Rutherford, 1991; Harris, Graham, Reid, McElroy, & Hamby, 1994; Maag, Reid, & DiGangi, 1993; Prater, 1994; Prater, Hogan, & Miller, 1992; Reid & Harris, 1993; Shimabukuro, Prater, & Jenkins, 1999; Smith, Nelson, Young, & West, 1992). These results have occurred in individual settings, small group settings, and large group settings across self-contained, resource, and mainstream classrooms. The effects have been noted over a several month period (Harris et al., 1994). See Appendix A for abstracts of self-monitoring research.

Research suggests that self-monitoring strategies may facilitate the generalization of behavior change, but the evidence supporting this belief is mixed. Current studies suggest that not all components of self-management are required to achieve self-regulation (Bryan & Sullivan-Burstein, 1998; Maag, Reid, DiGangi, 1993; McLaughlin, 1984; Trammel, Schloss, & Alper, 1994). The majority of self-monitoring research focuses on two types of interventions. First, the self-monitoring of performance (SMP) requires the teaching of assessment, evaluation and recording skills, which are applied to the quality and quantity of academic performance. This technique focuses on improving on-task behavior and academic performance. The second intervention, self-monitoring of attention (SMA) is directed at improving on-task behaviors within the classroom setting. Reid and Harris (1993) and Harris et al., (1994) concluded that improved attention to task would result in improved academic performances. The study presented in this paper implemented the self-monitoring of accuracy levels on student homework assignments by the use of a two-step intervention. Initially, the student recorded their accuracy

percentage in their agenda. The second intervention applied required the student to record their accuracy percentage into their agenda and to graph the percentage on a grid sheet to track their daily accuracy level. This required the four students involved in this study to actively participate in homework, which was a new experience for each student.

Self-Monitoring of Homework

One of the most researched topics of teacher selected strategies for improving homework is the use of a daily planner (Bryan & Sullivan-Burstein, 1998; Callahan, Rademacher, & Hildreth, 1998; Maag, Reid, DiGangi, 1993; Trammel, Schloss, & Alper, 1994) to record assignments. Although these studies stress the need of a daily format for the recording of the homework assignment, many researchers did not involve explicit instructions in the use of the planner. Given the need for a daily planner, or agenda, for student recording and tracking of assignments; the literature on self-monitoring focuses on the completion rates of homework and accuracy rates of those assignments, even partially, with some type of assignment planner (Bryan & Sullivan-Burstein, 1998; Callahan, Rademacher, & Hildreth, 1998; McLaughlin, 1994; Trammel, Schloss, & Alper, 1994). In the everyday world, homework assignment grades are not based upon the percent of the homework completed accurately. Rather, the student's grade is based on the accuracy percent assigned to the over all assignment, completed or not. However, many of the studies evaluated accuracy rates on partially completed assignments and do not serve a practical use to the average teacher (Callahan, Rademacher, & Hildreth, 1998; Trammel, Schloss, & Alper, 1994).

Gajria and Salend (1995) used a questionnaire format to compare the homework practices of students with and without learning disabilities in grades six through eight. The basic differences showed that the students with learning disabilities engaged largely in practices that interfered with homework completion. Some of these practices included trouble allocating time and attention to the assignments, motivation issues, and the lack of knowledge on how to study. Both groups agreed that homework was not important,

that they would rather be with friends, and they always began homework without a list of what to do or what materials were needed to complete the assignment.

In a similar fashion, Warton (1997) used a questionnaire format to attain students' answers to the following questions:

- 1) What practices do students report in regard to homework?
- 2) What understanding do children display about being responsible for homework?
and
- 3) Do these practices and understandings vary as a function of grade level or gender of the child? Warton found that student practices and students' understanding of self-regulatory aspects of homework did vary according to grade level, but not to gender. Students in grades 2-4 relied on verbal reminders to do homework 69% of the time compared to only 44% to students in the sixth grade. However, students in the sixth grade relied more on the written reminder in the daily planner. This is a reasonable change due to the student growing independence. As students progress in age their level of personal growth progresses to be more self-sufficient in nature. The understanding of the purpose of homework by sixth graders changed from "so you don't just sit in front of the TV" to "allow your parents to see what you are doing," to "to learn more." The sixth graders also gave a higher internal justification of doing homework on their own than the lower grade students.

Trammel, Schloss, & Alper (1994) and Callahan, Rademacher, & Hildreth (1998) conducted studies that focused on strategies to improve the homework performance of students. Both studies involved self-monitoring tools. Trammel et al. used a multiple baseline across eight students with learning disabilities at the secondary level to investigate the effects of self-monitoring procedures on homework performance. Trammel showed that self-recording enhanced homework completion percentages and that self-evaluation and graphing enhanced the results of the self-recording intervention.

Callahan et al. (1998) used a multiple baseline across groups design with 26 “at risk” sixth and seventh grade students and their parents to evaluate homework completed and percentage completed correctly. Callahan (1998) employed a parent-facilitated program of self-recording, self-reinforcement, and self-instruction and goal setting as a continuation of the Trammel study. Callahan found that homework completion and quality increased during intervention and the percentage of homework assignments completed increased for 20/26 participants, with an average 110% improvement.

Both of these studies focused on the self-monitoring of homework. However, both studies also evaluated the accuracy levels of the amount of homework completed by the student, which was not always the full assignment. In practice, teachers do not record accuracy grades for portions of homework completed. Teachers assign grades for the percentage of accuracy attained for the entire assignment. For example, the teacher assigns a homework assignment of 10 problems. One student completes only five problems, while another student completes all 10 problems. The first student receives 100% accuracy levels for the five problems he has completed, all correct. The second student receives 50% accuracy level for the 10 problems he has completed, five of which were correct. This is not fair to either student. It is important to evaluate the ratio of problems completed and number of problems assigned when there is a concern about raising the number of homework problems completed. However, to assign a percentage grade for the number of completed problems only makes the grade a skewed view of the student’s total accuracy levels. Therefore, the current study was designed to evaluate accuracy levels for the entire homework assignment. Percentage grades were assigned according to the total accuracy levels attained by the student. This more closely resembles typical homework grading procedures.

Another area of importance addressed by both Trammell et al., (1994) and Callahan et al., (1998) is the area of parent participation. Trammell and associates noted parent involvement was not evaluated by the study and was listed as a limitation.

Callahan's extension study (1998) coupled student involvement and parent involvement and included the parents as part of the intervention package. The parent-facilitated self-management program targeted specific homework skills and found that homework completion and accuracy rates increased during the intervention. Parent involvement has been documented to improve student achievement and to raise homework completion rates (Bay & Bryan, 1992; Callahan, Rademacher, & Hildreth, 1998; Cooper & Nye, 1994; Gajria & Salend, 1995). However, other studies have noted parents' lack of interest and even distaste in having to "teach" their children after school (Alleman & Brophy, 1991; Bursuck, 1994; Cooper & Nye, 1994; Turner, 1997).

Thus, the knowledge that teachers use and will continue to use homework as a tool to extend the learning process led this investigator to question the effects the application of self-monitoring tools to homework would achieve. Although the use of various self-monitoring strategies within homework programs have been documented in the literature (Callahan, Rademacher, & Hildreth, 1998; Trammel, Schloss, & Alper, 1994), no study investigated the effectiveness of self-monitoring skills when applied to homework and evaluated based on the general education grading scheme across subject areas. The present study was designed to investigate the effect of self-recording and self-graphing of spelling homework accuracy percentages when applied to homework assignments to increase the homework accuracy levels and academic performance levels of the participants. A secondary measure was collected to determine the relationship between homework accuracy levels and academic performance via weekly spelling quizzes. The students' homework accuracy percentages were tracked across all the participants' classes to document the generalization of the interventions into settings in which self-monitoring intervention was not applied.

The purpose of this study was to investigate the use of self-monitoring strategies applied to spelling homework assignments of middle school students. This study extends

the current research to include students with emotional and behavioral disorders at the middle school level.

Research Questions

1. Will student homework accuracy percentages increase due to self-recording of daily homework accuracy percentages?
2. Will student homework accuracy percentages increase due to the package of self-recording and self-graphing of daily homework accuracy percentages?
3. Will self-recording and/or self-graphing of homework accuracy percentages within a resource setting generalize to self-recording and/or self-graphing of homework assignments for other classroom settings?
4. Will self-recording and/or graphing of student homework accuracy percentages increase student weekly spelling quiz grades?

CHAPTER 2

METHOD

Participants and Setting

Permission to conduct this research study was obtained from the University of Georgia Institutional Review Board (IRB) and from the local rural school district. Permission was also obtained by written consent from the parents of each student. Each of the 4 participants received the parent consent form, which was signed and returned to the experimenter before the study began. All participants consented to take part in this study (Appendix B). Participation was contingent on parents' and students' interest in a program for improving academic performance. Students who participated in the study attended a small city public middle school (grades 6-8) in the Northeast Georgia and ranged from 13 – 15 years of age. Participants received special education services for emotional/behavioral disorders (EBD), as defined by state eligibility criteria.

Students selected for participation in this study displayed a consistent failure to complete daily homework assignments during a 9-week grading period, as documented by their classroom teachers. The students exhibited behaviors, which interfered with their learning process. These behaviors included inattention, poor academic work habits, withdrawal, anxiety and other stress related symptoms. These students also demonstrated low reading and spelling test scores on the KTEA, lack of homework strategies, and lack of organizational skills, all documented and recorded within the student's Individual Education Plan (IEP). Students receive small group and individual instruction within the resource setting for reading, spelling, time management, organizational, and work completion strategies. The following is a brief description of the participants.

Four students (three male, one female) participated in this study. The students ranged in age from 12 years 3 months to 15 years 3 months. Their measured level of intelligence *Wechsler Intelligence Scale for Children-Revised* (WISC-R) (Wechsler, 1981) Full Scale scores ranged from 76 to 98. Spelling achievement grade levels for the participants ranged from 3.8 to 4.2, with an average of 4.0, as measured by the Kaufman Test of Educational Achievement (K-TEA, 1997). All students had a diagnosis of an emotional/behavioral disorder according to criteria stated in the Georgia Special Education Criteria Guidelines (Georgia Department of Education, 2000).

Table 1

Participant Demographics

Subject	Gender	Age	F.S.IQ	Spelling G.E.	Overall Academic Achievement	Grade Level	Sp Ed Classification	Sp Ed Placement Segments
Jessica	F	15. 3	76	4.1	Below Average	8th	EBD	4
Derrick	M	12. 6	91	3.8	Low Average	7th	EBD/ADHD	2
Scott	M	12. 3	92	4.0	Average	7th	EBD/ADHD	2
John	M	14. 3	98	4.2	Average	6th	EBD/LD	2

Participants attended grades six through eight, in a small city, public school district. They received Emotional/Behavioral Disabilities (EBD) resource room services for between 17% and 83% of each day and were mainstreamed into regular classes for the remainder of the school day. All students displayed inattentive behaviors that caused them to “miss” work time in class, thereby increasing their homework load. Derrick and Scott had a diagnosis of AHD (Attention/Hyperactivity Disorder); the other two students, Jessica and John, tend to display similar distractive behaviors however, they did not have

a medical diagnosis. All four of the students displayed signs of depression, anxiety, and other stress related symptoms as measured by the Behavioral Emotion Scale (BES) (1994).

Jessica was a 15-year-old white female in the eighth grade. Her current classification was EBD with borderline intelligence. She had been self-contained within the special education setting since the third grade. Her seventh grade year she received instruction for social studies in a collaborative setting, which was met with success. This success served as a motivator and she was determined to achieve within the general education setting. Her eighth grade year she began the year in the general education Georgia History classroom with minor modifications. The modifications provided were the reading of the tests, extra time for tests and projects. Again she was successful. Mid-year she began receiving instruction for science in the general education setting with minor support. She had her tests read to her, received extra time when requested and again met with success.

Jessica exhibited low self-esteem as noted by negative self-comments and low self-appraisal of academic ability. She was very introverted and seldom requests help, even when needed. She functioned at a beginning fourth grade level, yet verbally and socially she was on the grade level of her peers. She had many friends, both male and female. Her self-esteem had risen this year in gaining academic acceptance and success within the general education setting.

During the resource reading class she had experienced the highest level of anxiety due to her low levels of reading and spelling, 4.0 and 4.1 respectfully. Jessica tried to complete all class work, yet homework was seldom completed.

Derrick was a 13 year old seventh grade white male with externalizing behavior disorders. His problem behaviors included: verbal aggression, physical aggression, negative self-talk, etc. He was a very angry young man who displaces his anger (rage) to any given situation. Derrick received two segments of special education services for

Reading and Mathematics. He was functioning at a fifth grade level in the area of Mathematics. Reading was a more difficult subject for him. He was functioning on the fourth grade equivalence level for Reading and 3.8 grade level for spelling. Derrick exhibited all characteristics of a child diagnosed as ADHD. He was easily distracted and had trouble sitting still. He had problem focusing for more than two to three minutes at a time on one activity, and needed large muscle activities throughout a 55-minute segment. He tries to complete his assigned class work most days, when he was not emotionally distraught, but little homework was ever attempted.

Scott was a 13 year old seventh grade white male. He was small and immature for his age. He presented himself as a silly class clown to the extreme. He asked irrelevant questions and required high levels of attention. He had a current psychological diagnosis of EBD and ADHD. He exhibited some behaviors, which could be classified as obsessive compulsive. He was meticulous about keeping notes and his notebook order. Yet, he would leave the notebook and not remember where, several times a day, on a daily basis. He had a short temper and became physically violent if agitated.

Academically he was functioning on grade level in all areas except reading and language arts. Based on the current reading evaluation he was functioning on the fourth grade level and 3.7 grade level in spelling. His class work was neat but seldom completed. He placed the class work in the appropriate area of his notebook, very organized, when he could find the notebook itself. He rushed through his work to be able to announce aloud that he was finished. Then he became upset when the paper was returned with a low grade on it. He craved attention and attempted to gain it by completing work quickly and being very polite. This resulted in his work being incomplete or incorrect. He was being served two segments a day, Reading and Language Arts within the resource setting.

John was a 14-year-old white male who was in the sixth grade. He was large for his age, about 6'0" and 210 pounds. He had a current diagnosis of EBD and LD in

Mathematics. He was apathetic toward academics and tend not to complete his work. His current needs were being served in the LD resource class for Mathematics and the EBD resource class for Reading. He displayed a high level of un-concern for schoolwork. He failed the sixth grade last year and was borderline failing in three classes this year. He was a bright young man who lacked motivation. He was a class clown, but was able to control his behavior in-class. The lack of homework completion was where he suffered the highest difficulty and the lack of completed homework assignments brought his grades to a borderline failing grade. He scored high on most standardized testing, but his daily work is considered to be below average. He was a very polite young man who did not make excuses for his lack of homework. Teachers held conferences with his parents (he lives with both his parents) and developed behavior management plans to no avail.

Students targeted to participate in this study attended and received instruction within the same class setting; therefore individual instruction for the intervention phases was given by the teacher outside the classroom, in a one-on-one conversation at the end of the class period. Students sat at various positions around the room, but all had a clear view of the front white-board and the teacher. The teacher/investigator moved around the room during the reading class. When the instructions for homework were given, the teacher moved to the front of the room. The teacher gained the students' attention by instructing them to retrieve their agenda. Students faced the board, regardless of position within the room. Verbal and visual presentation of the homework assignment was given daily. The intervention sessions took place daily, Monday through Friday, the last class period of the day, between 2:40 and 2:45 p.m.

Materials

The study required that each student use their agenda (a book for recording daily assignments), provided by the school at the beginning of the school year. Checks were conducted to ensure each student possessed or had his or her agenda daily. Any student

who did not have an agenda or who lost it during the study was provided with photocopies of the pages as needed (Appendix C).

Graphing paper (Appendix D) was used in the self-graphing phase of the intervention. Each student was responsible for keeping the grid paper stapled to the front cover of his or her agenda and used it as directed during the self-graphing phase of intervention.

The Data Collection of Homework and Quizzes sheet (Appendix E) was used to track and monitor individual student compliance with condition requirements. Individual data sheets (Appendix F) were used to monitor students self-recording for the baseline condition.

The homework assignments consisted of standard spelling exercises, drills, and worksheets as prescribed in the curriculum packages adopted by the school (Appendix G).

Dependent Measures

The dependent measure, student's correct percentages achieved on spelling homework, was graded and monitored daily by the teacher. Secondary dependent measure was, two weekly spelling quizzes, were also monitored to determine if there was a relationship between accuracy percentages of homework and academic achievement. The weekly quizzes consisted of two spelling measures. Test A consisted of the student spelling the word when orally prompted. The second measure, Test B, afford the student the opportunity to distinguish the correct spelling of the vocabulary words from misspelled versions. The two quiz accuracy percentages were then added together and divided by two to determine the weekly quiz grade for each student. This accuracy grade was then used in the study as the weekly quiz grade.

Recording Procedures

Participant's percentages of homework accuracy were tracked and recorded daily by the teacher. The teacher graphed the student's correct percentages daily and visual analysis was used to determine the effectiveness of each condition. The weekly averaged quiz grades were graphed on the student's individual graph by the student. The teacher also maintained a record by graphing the student's accuracy percentages on her records. Daily comparison checks of student graphs to teacher graphs were made to ensure correct graphing by the student. Adjustments were made only once during the self-graphing phase the student had misgraphed his score and the teacher had him correct it during the out-of room consultation period.

Participants who recorded the assignment in the column adjacent to the day of the week and in the row associated with the reading class received a plus sign (+) on the Student Data Sheet. The teacher tracked and differentiated the recording of the assignment before the given 30 second interval and the recordings made after an additional reminder was given. A photocopy of the students' agenda pages provided permanent data on students' recording process. The teacher recorded on a daily log, each student's assignment accuracy levels (Appendix F).

Design

A multiple baseline across subjects design was used to assess the effectiveness of self-recording and self-graphing. The design limits the effects of confounding variables such as history and maturation by staggering the introduction of the intervention across students. This design was chosen due to the effectiveness in attributing behavior change in several person to a discrete intervention (Kazdin, 1982). Testing variables were evaluated by randomly alternating homework assignments across days of the week. Instrumentation was evaluated by the collection of reliability of data by a second observer, who collected reliability data at least four times each condition or 80% of each condition per participant.

CHAPTER 3

PROCEDURES

Baseline

Baseline conditions consisted of the existing classroom behavior management contingencies, and no instruction in intervention procedures occurred. During this time, the teacher presented the homework assignment both orally and in written form on the white board, as usual. The purpose of the baseline condition was to gather pre-intervention information to establish a relationship between the use of the agenda and accuracy percentages of homework and the student's achievement levels as evaluated via weekly quizzes. Participants were required to take the agenda home each night. To help ensure this aspect of the study the homework assignment was given at the end of the last class period, which concluded the student's day. Students were not allowed to go to their locker once the last class began, thus the students were required to carry the agenda home.

At the end of the reading class each day, the teacher asked the student to record in his/her agenda the homework for that day. She verbally announced the assignment and then wrote the assignment on the board. The students were given 30-seconds to write the assignment in their agenda. The agenda depicted in Appendix E was used to record each assignment for a particular school day. The teacher checked the students' progress of self-recording of the assignment into the agenda by walking around the room and recorded the use of the agenda via the tracking sheet (Appendix E). This form had all students names on it and the dates of the baseline phase. A (-) on the form indicated a

negative student response, no recording of the assignment within the 30-second delay. A (+) indicated a positive response, recording of the assignment within the 30-second interval. The teacher then asked each participant to step outside the room to remind the individual and student to record the homework assignment into the agenda and doubled checked the students' agenda who had received a (-).

Self-Recording Intervention

The self-recording condition was initiated following baseline for each student in a staggered format (Figure 1). This intervention was initiated after a stable or decelerating trend in baseline was achieved. During this condition of the study students were required to record their homework assignments daily in the agenda. The following school day students recorded the percent correct attained on the homework assignment during the private, one-on-one consultation outside the classroom.

Each day a homework assignment on the 20 vocabulary words for the week was given. The assignments ranged from writing the words three times, using the vocabulary words in a sentence, alphabetizing the words, and finding the words within a word-find exercise, etc. (Appendix G). The order of homework lessons was randomly assigned each week to control for sequence issues.

At the end of the reading class each day, the teacher instructed students "to get their agenda out" and then she announced the homework for that day. The teacher then wrote the assignment on the board in the designated section of the board for homework.

The teacher reminded each student individually to write the assignment into their agenda during each intervention condition, if they failed to do so within a 30 second interval. The teacher graded the homework assignment during independent seatwork the following day and had it ready to return by the end of the period. At the end of the class period the teacher asked each individual student to step outside to receive the graded homework. The student recorded the percentage of accuracy received on the previous night's homework beside the recorded assignment in the agenda. The self-recording

intervention condition continued for a minimum of four days. The four-day rule allowed for the weekly quizzes and the tracking of a possible relationship between homework and student achievement.

Self-Recording and Self-Graphing Phase

The next phase of the study involved the addition of self-graphing of the accuracy percentage on the homework assignment achieved by the student. All participants were taught how to graph percentages during previous mathematics classes. The teacher asked the student to step outside, as usual and returned the graded homework. The student then recorded the accuracy percentage in the agenda and graphed the accuracy percentage on the grid in the front of his/her agenda. The teacher continued to keep a daily log of the student's completed assignment for accuracy checks. When a student made an inaccurate recording or a graphing error, the teacher instructed the student to correct his/her recording/graph, daily. This phase was initiated after the student had completed a self-recording of his/her homework accuracy percentages for a minimum of a four day period. An outside observer checked teacher reliability during this intervention condition 100% of the time (Appendix I).

Self-Choice Phase

The final phase of this study involved the removal of all self-monitoring requirements. The student was given a choice to continue to self-record, self-graph, both, or none of the interventions. Each student was responsible for maintaining his or her assignments. This self-choice condition was designed to help determine whether one or both of the interventions were preferred over another, and to help evaluate the social validity of the interventions. The teacher maintained data on the accuracy level of homework and achievement levels of weekly quizzes to evaluate the relationship between homework accuracy percentages and student achievement.

Generalization Assessment

Data were collected during all four conditions on student use of the agenda for classes outside the reading class in which the study was conducted (Appendix I). Information was collected from the teachers of the participants on the accuracy levels of those homework assignments completed by the participating student. Student agendas were photocopied to provide a permanent product displaying the use of self-recording/graphing of class assignments outside the resource setting. The purpose of generalization assessment was to determine the possible generalization, across settings and teachers, on student use of the self-recording and graphing procedures, within the resource setting, and to increase student accuracy levels on homework outside the resource room. The investigator/teacher collected generalization data daily. Permanent products, the teacher's records of daily homework assignments and completion percentages, were photocopied for easier validation. The student had no knowledge of the collection of the generalization data. This helped to ensure a more unbiased data collection of the effectiveness of the interventions as they are introduced since the student only received instruction of how to use the self-monitoring procedures within the special education resource reading class. No special instructions were provided within other settings. Most teachers within this school setting give homework assignments at the end of class both orally and in written form, thus allowing for a consistent format of homework presentation.

Procedural Reliability

Procedural reliability checks were conducted by the paraprofessional assigned to the classroom. Prior to baseline, training for the reliability observer was conducted. Procedural reliability checks were conducted across phases for at least 80% of the total sessions, per participant. These reliability checks were made as a safeguard against any inconsistencies in determining correct daily accuracy, test accuracy percentages, and any generalization aspects. Teacher and paraprofessional were aware of performance criteria

and the paraprofessional was trained to accurately record correct accuracy percentages. The teacher, on a daily basis, conducted reliability checks for students' recording/graphing of accuracy percentages. The paraprofessional provided reliability checks on teacher findings each day during the study, with a 100% agreement.

CHAPTER 4

RESULTS

Interobserver Agreement

Interobserver reliability checks were conducted by the paraprofessional assigned to this class period. Accuracy was checked for 100% of the permanent products. Permanent products included daily homework assignments, daily agenda recordings, grading of homework and spelling tests, and teacher records. Reliability checks on these products were conducted four of five days across all phases and across all participants. The reliability levels were found to be 100 percent accurate; that is a total agreement between teacher and paraprofessional.

The paraprofessional conducted reliability checks on the corrections made by the teacher on student graphing daily using the same format and produced a coefficient of 1.0. Which indicated that the teacher corrections of student graphs were indeed correct. A reliability coefficient of 1.0 was determined by use of permanent products. The paraprofessional was instructed to provide accuracy checks on the graded homework assignments and the spelling tests given each week. The paraprofessional found no mistakes in the grading process by the teacher, thus producing 100% reliability.

The paraprofessional was also instructed in observational procedures and the data collection tool for Teacher Fidelity (Appendix E). She observed the teacher four days each week for procedural reliability for the collection of: 1) Were the homework assignments presented orally? 2) Were the homework assignments written on the board? 3) Did the teacher give the attentional cue (Get your agenda out)? 4) Did the teacher give the instructional cue (Look at the board)? 5) Did the teacher give the instructional cue

(This is your homework for tonight)? 6) Did the teacher wait for the students to follow instructions (30-seconds)? And 7) Did the teacher check the agenda (Appendix H) to ensure students copied down the homework assignment. Procedural reliability was determined to be 100% meaning research procedures were followed precisely throughout the study.

Student Results

Jessica

Before intervention, Jessica's baseline average in Spelling was 60%. She ranged between 50 and 70 percent accuracy on homework assignments and had an average of 50 percent accuracy on her spelling tests (see Figure 1).

Once the self-recording intervention was introduced, an immediate and drastic increase in daily homework accuracy percentages was noted (see Table 2). She maintained this 100% accuracy during the self-recording phase and into the first four days of the self-graphing phase. It should be noted that Jessica was 100% accurate in her self-recording and self-graphing as checked by her teacher on a daily basis.

Table 2
Daily Homework Accuracy Mean Percentages

Accuracy Percentage	Baseline	SR-phase	SR+SG Phase	M1	M2	M3	M4	M5	M6
Jessica	Mean 60	Mean 100	Mean 100	Mean 99	Mean 99	Mean 95	Mean 100	Mean 100	Mean 100
	Median 60	Median 100	Median 100	Median 98	Median 100	Median 100	Median 100	Median 100	Median 100
	Range 50-70	Range 100-100	Range 100-100	Range 95-100	Range 95-100	Range 80-100	Range 98-100	Range 100-100	Range 99-100

Spelling test means indicate a consistently higher accuracy percentage for Jessica after the interventions were initiated. Spelling Test A consisted of the teacher dictating the spelling words to the student and the student spelling the word correctly on their paper. Spelling Test B consisted of the student correctly selecting the spelling from the four given choices. The two spelling test scores were averaged together to formulate the

weekly spelling test score. Table 3 indicates the mean averages of those spelling test scores for Jessica.

Table 3
Spelling Test Accuracy Mean Percentages

Accuracy Mean %	Baseline	SR	SR+SG	M1	M2	M3	M4	M5	M6
Jessica	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean
	50	100	88	98	80	88	98	98	98
	Median	Median	Median	Median	Median	Median	Median	Median	Median
	50	100	88	98	80	88	98	98	98
	Range	Range	Range	Range	Range	Range	Range	Range	Range
	40-60	100-100	80-95	95-100	70-90	75-100	95-100	95-100	95-100

Over all Jessica demonstrated a significant increase in both daily and test accuracy percentages during the study.

It should be noted that she decided to continue to self-recording and self-graphing during the self choice phase during which time she continued to experience success in both daily homework outcomes and in student achievement as measured by weekly tests.

Derrick

Prior to intervention, Derrick rarely completed daily homework assignments. His homework accuracy mean was 22%. His homework ranged from 0 to 60 percent accurate zero's were a result of no attempt to complete homework assignment, not due to inaccurate completions. His test score average was 64 percent. As soon as self-recording was introduced his homework accuracy percentages increased dramatically. Within a weeks' time he was consistently performing between 90 and 100 percent (see Figure 1) with a mean score of 95. Weekly test scores also increased to 83% mean score (see Table 4). Derrick also demonstrated an improvement in the area of homework completion. Prior to intervention he did not attempt all assignments. During the tervent phases he demonstrated a 100% improvement in completion attempts.

Table 4

Derrick's Daily Homework Accuracy Percentages

Accuracy Mean Percentages	Baseline	SR-phase	SR+SG Phase	M1	M2	M3	M4	M5
Derrick	Mean 22	Mean 95	Mean 88	Mean 94	Mean 91	Mean 99	Mean 94	Mean 98
	Median 0	Median 95	Median 88	Median 98	Median 98	Median 100	Median 98	Median 100
	Range 0-60	Range 90-100	Range 80-90	Range 80-100	Range 67-100	Range 95-100	Range 80-100	Range 90-100

Throughout the first week of self-graphing and self-recording Derrick continued to exhibit stable scores within the 88% average range and test score means increased from 64 percent in baseline to an 83 in self-recording and 100% in self-recording and self-graphing phase. This was a total of 19 percent test average increase from baseline to self-recording phase. And a 36% increase to the self-recording and self-graphing phase (see Table 5). It should be noted that Derrick was 100% accurate in his self-recording and self-graphing as checked by his teacher on a daily basis.

Table 5

Derrick's Weekly Spelling Test Accuracy Percentages

Accuracy Mean Percentages	Baseline	SR-phase	SR+SG Phase	M1	M2	M3	M4	M5
Derrick	Mean 64	Mean 83	Mean 100	Mean 83	Mean 100	Mean 95	Mean 80	Mean 95
	Median 65	Median 83	Median 100	Median 83	Median 100	Median 95	Median 80	Median 95
	Range 30-95	Range 70-90	Range 100-100	Range 75-90	Range 100-100	Range 90-100	Range 75-85	Range 90-100

Scott

Scott's homework mean before intervention was 09 percent. All zero's received during baseline were due to lack of attempts at the homework assignments, rather than inaccuracy. His test mean percentage was 22 (see Figure 1). Throughout the self-recording phase of the study, Scott's homework accuracy percentage increased to a mean of 90 (see Table 6). His test scores improved from 22 percent to 80 percent.

Table 6
Scott's Daily and Test Accuracy Percentages

Accuracy Mean Percentages	Baseline	SR-phase	SR+SG Phase	M1	M2	M3
Scott	Mean 09 Median 0 Range 0-40	Mean 90 Median 80 Range 80-100	Mean 80 Median 78 Range 64-100	Mean 94 Median 95 Range 80-100	Mean 94 Median 98 Range 90-100	Mean 96 Median 98 Range 90-100

Table 7
Scott's Spelling Test Accuracy Mean Percentages

Accuracy Mean Percentages	Baseline	SR-phase	SR+SG Phase	M1	M2	M3
Scott	Mean 22 Median 73 Range 20-100	Mean 80 Median 83 Range 55-100	Mean 88 Median 88 Range 85-90	Mean 98 Median 98 Range 95-100	Mean 95 Median 95 Range 90-100	Mean 98 Median 98 Range 95-100

Because Scott was suspended for two days in week one of self-recording, a second week of self-recoding was added to help stabilize the data. During the second week, Scott again received two days of out of school suspension and was not exposed to the intervention. However, after two partial weeks of self-recording his achieved accuracy percentages into his agenda it was determined that stability was reached due to the homework accuracy levels 100% correct completion of all assigned homework, and test scores acquired by Scott (see Figure 1). The addition of self-graphing was introduced and the data stabilized within the 80% accuracy range. It should be noted that Scott was 90% accurate in his self-recording and self-graphing as checked by his teacher on a daily basis.

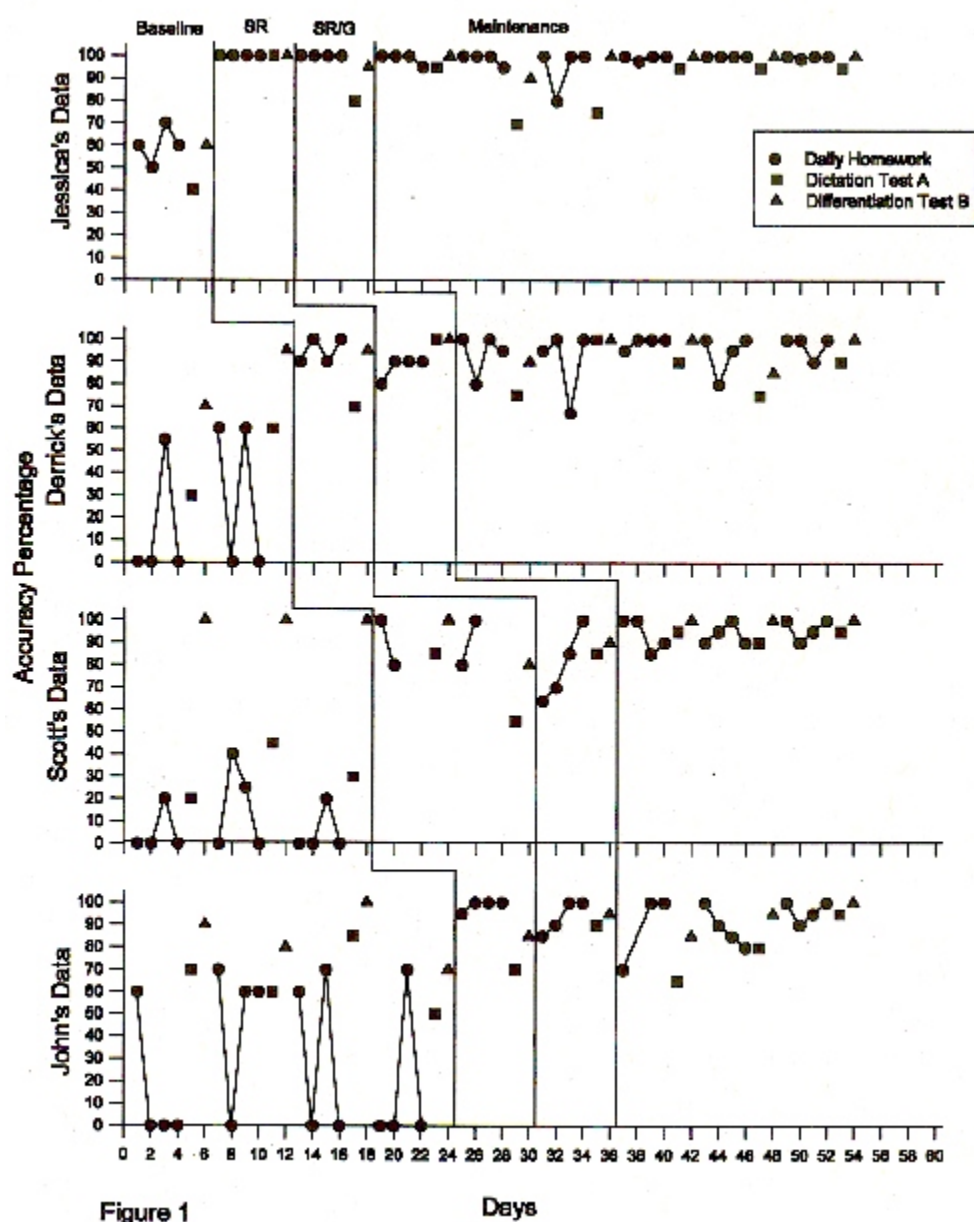


Figure 1
Student Outcomes

Scott elected to continue the combination of self-recoding and self-graphing due to the increase in homework scores and test scores he experienced (see Table 7).

John

John was the fourth student to receive the self-monitoring interventions. His baseline homework accuracy mean percentage was calculated to be 28 and test mean was 76 (see Figure 1). Again, zero's assigned to homework assignments were due to No attempt to complete the assignment and not because of incorrect responses.

Once the self-recording intervention was introduced, John experienced a drastic improvement in his daily homework accuracy levels and 100% improvement in completion levels. In baseline his daily homework mean percentage was 28% for the four weeks. During the self-recording phase his daily homework mean improved to 99%. This was a 71% increase, which is seen as a notable improvement in daily achievement levels (see Table 8). It should be noted that John was 100% accurate in his self-recording and self-graphing as checked by his teacher on a daily basis. The following phases of self-recording plus self-graphing and maintenance saw a stable level of 92% accuracy level.

Table 8
Daily Homework Accuracy Mean Percentages

Accuracy Mean Percentages	Baseline	SR-phase	SR+SG Phase	M1	M2	M3
John	Mean 28 Median 0 Range 0-70	Mean 99 Median 100 Range 90-100	Mean 94 Median 95 Range 80-100	Mean 90 Median 100 Range 70-100	Mean 89 Median 88 Range 80-100	Mean 96 Median 98 Range 90-100

John experienced a slightly less impressive improvement in this test scores (see Table 9). His average test scores for the four weeks of baseline was 75.5%. In the self-recording phase John, scored a 78% average on his spelling tests and a 93% average during the self-recording/self-graphing phase. His Maintenance percentage was 87.

Table 9
Spelling Test Accuracy Mean Percentages

Accuracy Mean Percentages	Baseline	SR- phase	SR+SG Phase	M1	M2	M3
John	Mean 76	Mean 78	Mean 93	Mean 75	Mean 88	Mean 98
	Median 75	Median 78	Median 93	Median 75	Median 88	Median 98
	Range 50-100	Range 70-85	Range 90-95	Range 65-85	Range 80-95	Range 95-100

CHAPTER 5

DISCUSSION

All participants improved their spelling homework accuracy levels and test averages during this study. The data collected supports previous research on self-recording and self-graphing (SR/G), which is consistent with reported improvements in students' academic content across a variety of curricula areas within the school day (DiGangi, Maag, & Rutherford, 1991; Kelley & Kahle, 1995; Prater, Joy, Chilman, Temple, & Miller, 1991) and adds to the limited body of studies using SR/G with students with EBD and homework concerns (Callahan, Rademacher, & Hildreth, 1998; Trammel, Schloss, & Alper, 1994).

The improvement of homework accuracy levels directly relates to the first research question, which asked if student homework accuracy percentages would increase due to self-recording of daily homework accuracy percentages. Individual student data collected during this study (see Tables 2, 4, 6, 8) indicates a improvement in spelling homework accuracy levels.

The second research question asked if student homework accuracy percentages would increase due to the package of self-recording and self-graphing of daily homework accuracy percentages. Figure 1 and Tables 2, 4, 6, and 8 provide an indication of daily homework accuracy percentages completed during the self-recording plus self-graphing phase of the study. Because the self-recording and self-graphing package was implemented immediately after the self-recording intervention without returning to baseline it is impossible to determine it relative effect on the dependent measures. It should be noted the students who received a zero for homework did so because no

attempt was made, not because of inaccurate responses. Self choice data indicate an increase of performance over time, which support the social validity of the package of self-recording and self-graphing.

The third question asked whether self-recording and/or self-graphing of homework accuracy percentages within a resource setting would generalize to self-recording and/or self-graphing of homework assignments for other classroom settings. Student agendas were photocopied to provide a permanent product for the teacher and paraprofessional to collect data for this question. Indications were that in general, students did not begin SR/G of assignments outside the resource classroom until the self choice phase of the study. Jessica began using the interventions immediately, however, Derrick and Scott used only the SR intervention for classes other than the Spelling class. John never used either intervention for other classes.

The final question asked if self-recording and/or graphing of student homework accuracy percentages would increase student weekly spelling quiz grades. Data indicated an increase in student achievement as represented by weekly spelling quiz grades (See tables 3, 5, 7, 9).

Social Validity

To help determine the importance this study and it's results had on the participants and to check for the social validity of the project, a questionnaire was given to each student, parent, and teacher of the students who participated in this study. The questionnaires consisted of open-ended questions and a comment area (Appendix J). Appendix K contains a typed version of the completed questionnaires for reader interpretation.

Jessica's teachers noted a remarkable difference from day one. They noted she was more organized and more confident about what was expected of her. Comments included, "Jessica is more prepared for class," "She is more organized and confident" to "Improvement in homework production was evident within a week's time." Derrick and

Scott's teachers were not as descriptive with the noted changes, though changes in homework completion were noted for both of them.

Student questionnaires indicated 3 of the students reported using the self-recording technique and one student, Jessica, used both self-recording and self-graphing techniques. For outside classes all but one student reported that self-recording/self-graphing was fun. In addition this information provided a meaningful context for graphing. Derrick reported, "We learned how to graph in math class, but I didn't know that we could use it."

Parent level of participation within this homework intervention varied. However, parents reported a noticeable improvement in their child's homework accuracy and spelling achievement. In fact, some parents indicated that this intervention helped to improve their child's attitude towards school. Jessica's dad stated, "She wanted to do as good as or better than she had the day before. This seemed to make her want to be better." Scott's mother reported, "... his grades went up. Maybe he will stay in school." And John's mother said, "John has a bad attitude toward school in general. But this seemed to help cause he liked doing it." Parental responses to questions are presented in typed form in Appendix K.

Limitations and Future Research

Package interventions with self-recording and self-graphing focused on academic tasks is a limitation. The relative contribution of each component was not isolated to assess the effects of each. Further, the decrease of student performance when self-graphing was first introduced leads one to believe that perhaps self-recording alone is more effective. However, performance levels increased during self choice and student enjoyed the graphing process. Thus, whether SR or SG instruction alone could have produced the same or similar improvements in the academic and academic-related dependent measures are a question for the future. Further replications across populations and settings are needed to substantiate and verify the functional relationship identified

and suggested in this study. In addition, students who may be at-risk and not receiving special services may benefit from the interventions used in the present study.

The question of true academic gains (i.e., grades, averages) as a result of the intervention remains speculative. Academic gains were reported to move in a positive direction for all students. In addition three of the four students generalized self-recording or self-recording/self-graphing to at least one other academic class. However, data were not collected to determine the affect of SR/SG on actual achievement in these other classes.

Future studies should also address parental involvement in more detail. Parents of participants in this study varied in their level of involvement. It would be interesting to determine the relative affect this involvement has in sustained homework completion and achievement over time.

Implications for practitioners

The study provides pertinent information for teachers wishing to improve homework accuracy levels for students with EBD. The long-term objective of improving student academic outcomes needs further investigation, however, the intervention examined in this study provides a possible attribution to this goal. Self-recording of homework accuracy percentages has a positive effective on increasing student grades. It also showed a positive effect on increasing the spelling test accuracy percentages, which were directly related to the spelling homework assignments. With little time or expense to the teacher the student outcomes were well worth the time spent. The results of this study, improved homework and testing accuracy percentages, are the ultimate goal of any teacher when dealing with students with problems completing homework.

Conclusion

In summary, the findings of the present study suggest that self-recording of homework assignments is an effective method of improving homework accuracy percentages, which supports earlier findings regarding the effectiveness of the

intervention. Questions about the relative contribution of SR/G on the measure of academic behaviors applied to students with mild disabilities remain inconclusive. SR/G has implications for future research as related to several aspects of instructional procedures. A number of studies have supported the hypothesis of increased academic gains from SR/G for in-class assignments. However, this study suggests that self-recording is a tool that provides an effective method of increasing accuracy percentage levels for homework and for student achievement.

REFERENCES

- Alleman, J., & Brophy, J. (1991). *Reconceptualizing homework as out-of-school learning opportunities*. East Lansing: Michigan State University, Institute for Research on Teaching.
- Archer, A. L. (1988). Strategies for responding to information. *Teaching Exceptional Children, 20*, 55-57.
- Bay, M. & Bryan, T. (1992). Differentiating children who are at risk for referral from others on critical classroom factors. *Remedial and Special Education, 12*(4), 27-33.
- Behavioral Evaluation Scale-Z (BES-2) (1994). Stephen B. McCarney MO: Hawthorne Educational Services, Inc.
- Bryan, T., & Sullivan-Burstein, K. (1998). Teacher-selected strategies for improving homework completion. *Remedial and Special Education, 19*(2), 263-275.
- Bursuck, W.D. (1994). Introduction to the special series on homework. *Journal of Learning Disabilities, 27*, 466-469.
- Callahan, K., Rademacher, J.A., & Hildreth, B.L. (1998). The effect of parent participation in strategies to improve the homework performance of students who are at risk. *Remedial and Special Education, 19*(3), 131-141.
- Carr, S.C. & Punzo, R.P. (1993). The effects of self-monitoring of academic accuracy and productivity on the performance of students with behavioral disorders. *Behavioral Disorders, 18*(4), 241-250.
- Cooper, H. (1989). Synthesis of research on homework. *Educational Leadership, 47*(3), 85-91.

- Cooper, H., & Nye, B. (1994). Homework for students with learning disabilities: The implications of research for policy and practice. *Journal of Learning Disabilities*, 27, 470-479.
- Cooper, H., Lindsay, J. J., Nye, B., & Greathouse, S. (1998). Relationships among attitudes about homework, amount of homework assigned and completed, and student achievement. *Journal of Educational Psychology*, 90(1), 70-83.
- DiGangi, S. A. & Maag, J. W. (1992). A component analysis of self-management training with behaviorally disordered youth. *Behavioral Disorders*, 17(4), 281-290.
- DiGangi, S.A., Maag, J.W., & Rutherford, R. B.(1991). Self-graphing of on-task behavior; Enhancing the reactive effects of self-monitoring on on-task behavior and academic performance. *Learning Disability Quarterly*, 14, 221-230.
- Education for all handicapped children act (P.L. 94-142) (1995). United States Government [www.ed.gov].
- Epstein, M.H., Polloway, E.A., Foley, R.M., & Patton, J.R. (1993). Homework: A comparison of teachers' and parents' perceptions of the problems experienced by students identified as having behavioral disorders, learning disabilities, or no disabilities. *Remedial and Special Education*, 14(5), 40-50.
- Fowler, S.A. (1986). Peer-monitoring and self-monitoring: Alternatives to traditional teacher management. *Exceptional Children*, 52, 573-583.
- Gajria, M., & Salend, S. J. (1995). Homework practices of students with and without learning disabilities: A comparison. *Journal of Learning Disabilities*, 28(5), 291-296.
- Georgia Department of Education (2003). *Exception children definitions* [www.doe.k.12.ga.us].
- Hallahan, D.P., Lloyd, J.W., & Stoller, L. (1982). *Improving attention with self-monitoring: A manual for teachers*. Charlottesville: University of Virginia Learning Disabilities Research Institute.

- Hallahan, D.P. & Sapona, R. (1982). Self-monitoring of attention with learning-disabled children: Past research and current issues. *Exceptional Children*, 60(2), 616-620.
- Harris, K. R., Graham, S., Reid, R., McElroy, K., & Hamby, R.S. (1994). Self-monitoring of attention versus self-monitoring of performance: Replication and cross-task comparison studies. *Learning Disability Quarterly*, 17, 121-139.
- Individuals with Disabilities Education Act (IDEA) (1997). United States Government [www.ed.gov/IDEA97].
- Kaufman Test of Educational Achievement, Comprehensive Form (KTEA) (1997). MN: American Guidance Service.
- Kazdin, A.E. (1982). Single-case research designs: Methods for clinical and applied settings. New York: Oxford University Press.
- Kelley, M.L. & Kahle, A.L. (1995). Homework Interventions: A review of procedures for improving performance. *Special Services in the Schools*, 10(1), 1-25.
- Lazarus, B.D. (1993). Self-management and achievement of students with behavior disorders. *Psychology in the Schools*, 30, 67-74.
- Lloyd, J.W. & Landrum, T.J. (1990). *Self-recording of attending to task: Treatment components and generalization of effects*. In T.E. Scruggs & B.Y.L. Wong (Eds.), *Intervention research in learning disabilities* (pp. 235-262). New York: Springer-Verlag.
- Maag, J. W., Reid, R., & DiGangi, S. A. (1993). Differential effects of self-monitoring attention, accuracy, and productivity. *Journal of Applied Behavior Analysis*, 26, 329-344.
- Mathes, M.Y. & Bender, W.N. (1997). The effects of self-monitoring on children with attention-deficit/hyperactivity disorder who are receiving pharmacological interventions. *Remedial and Special Education*, 18(2), 121-128.
- Mercer, C. D. & Mercer, A. R. (1993). *Teaching students with learning problems*. New York: Macmillan.

- McLaughlin, T. F. (1994). A comparison of self-recording and self-recording plus consequences for on-task and assignment completion. *Contemporary Educational Psychology, 9*, 185-192.
- Nelson, R.O. & Hayes, S.C. (1981). Theoretical explanations for reactivity in self-monitoring. *Behavior Modification, 5*, 3-14.
- Nelson, R.O., Smith, D.J., Young, K.R., & Dodd, J.M. (1991). A review of self-management outcome research conducted with students who exhibit behavioral disorders. *Behavioral Disorders, 16*, 169-179.
- Prater, M.A. (1994). Improving academic and behavior skills through self-management procedures. *Prevention School Failure 38*(4), 5-9.
- Prater, M.A., Hogan, S., & Miller, S.R. (1992). Using self-monitoring to improve on-task behavior and academic skills of an adolescent with mild handicaps across special and regular education settings. *Education and Treatment of Children, 15*(1), 43-55.
- Prater, M. A., Joy, R., Chilman, B., Temple, J., & Miller, S.R. (1991). Self-monitoring of on-task behavior by adolescents with learning disabilities. *Learning Disability Quarterly, 14*, 164-177.
- Reid, R. (1996). Research in self-monitoring with students with learning disabilities: The present, the prospects, the pitfalls. *Journal of Learning Disabilities, 29*(3), 317-331.
- Reid, R. & Harris, K. (1993). Self-monitoring of attention versus self-monitoring of performance: Effects on attention and academic performance. *Exceptional Children, 60*(1), 29-40.
- Salend, S.J. (1994). *Effective mainstreaming: Creating inclusive classrooms* (2nd ed.). New York: Macmillan.
- Salend, S.J. & Gajria, M. (1995). Increasing the homework completion rates of students with mild disabilities. *Remedial and Special Education, 16*(5), 271-278.

- Shimabukuro, S.M., Prater, M.A., & Jenkins, A.A. (1999). The effects of self-monitoring of academic performance on student with learning disabilities and add/adhd. *Education and Treatment of Children*, 22(4), 397-414.
- Smith, D.J. (1989). The generalization of treatment gains of mildly handicapped adolescents from special education to regular education classrooms using peer-mediated self-management procedures (Doctoral dissertation, Utah State University). *Dissertation Abstracts International*, 50, 1206A.
- Smith, D.J., Nelson, J.R., Young, K.R., & West, R.P. (1992). The effect of a self-management procedure on the classroom and academic behavior of students with mild handicaps. *School Psychology Review*, 21(1), 59-72.
- Snider, V. (1987). Use of self-monitoring of attention with ld students: Research and application. *Learning Disability Quarterly*, 10, 139-151.
- Stormont-Spurgin, M. (1997). I lost my homework: Strategies for improving organization in students with adhd. *Intervention in School and Clinic*, 32(5), 270-274.
- Struyk, L.R., Cole, K.B., Bursuck, W., Epstein, M.H., & Polloway, E.A. (1996). Homework communication: Problems involving high school teachers and parents of students with disabilities. *American Secondary Education*, 25(1), 9-16.
- Trammel, D. L., Scholss, P. L., & Alper, S. (1994). Using self-recording, evaluation, and graphing to increase completion of homework assignments. *Journal of Learning Disabilities*, 27(2), 75-81.
- Turner, M.L. (1997, September/October). Homework: Plan it, teach it, enjoy it! The High School Magazine.
- Warton, P.M. (1997). Learning about responsibility: Lessons from homework. *British Journal of Educational Psychology*, 67, 213-221.
- Webber, J., Scheuermann, B., McCall, C., & Coleman, M. (1993). Research on self-monitoring as a behavior management technique in special education classrooms: A descriptive review. *Remedial and Special Education*, 14, 38-56.

Wechsler, D. (1981). *Manual for the wechsler intelligence scale for children-Revised*.
San Antonio, TX: Psychological Corp.

APPENDIX A
SUMMARY OF SELF-MANAGEMENT STUDIES

APPENDIX A

Summary of Self-Management Studies

Reference	Bryan, T., & Sullivan-Burstein, K. (1998). Teacher selected strategies for improving homework completion. <i>Remedial and Special Education</i> 19(2), 263-275.
Participants	Study #1 of 3 11 Teachers; four primary, five intermediate and two special education teachers Two years – 6.75 years of experience 123 students chosen because of problems with homework completion and/or inaccuracy rates of 25% or higher.
Research Questions/Purpose	Study #1 The purpose was to engage teachers across an extended period of time that would allow them to reflect upon their practice and to systematically test strategies to improve homework completion of students with and without learning disabilities who had homework problems. The team of general and special education elementary teachers studied the extant research base and selected, designed, implemented, and systematically evaluated the effectiveness of these homework strategies. Evaluation was based on students' homework completion and weekly quiz performance.
Dependent Variables	Study #1 The completion rates of daily homework assignments in Mathematics and Spelling along with the weekly quizzes. These subject areas were the dependent variables primarily because these subject areas were common to all six grades.
Independent Variables	Study #1 Across a 2-year period, the investigators met with the team of teachers weekly in order to (a) study the extant database on homework, (b) establish goals for the project, (c) develop an intervention research plan, and (d) evaluate the impact of the interventions on students. Teachers agreed to give approximately four assignments per week, two spelling and two math, and weekly spelling and math tests.

Experimental Design	<p>Study #1</p> <p>The analysis was based on four factorial multivariate analyses of variance (MANOVA's) comparing the means of the dependent measures (math homework completion, spelling homework completion, math test performance, spelling test performance) across two levels of group (learning disabled, average achieving), two levels of homework (problems, no problems), and four levels of intervention – baseline, reinforcement, real-life assignments, and real-life assignments plus reinforcement. The Wilks's Lambda F statistic was used to report the results of the MANOVA's. Univariate results were reported for variables that demonstrated a main effect or interaction. Post hoc tests for significance were used to examine interaction effects. Alpha was set at p less than 0.01 because of the number of comparisons being made.</p>
Results	<p>Study #1</p> <p>Math Completion: Significant main effects. The average achieving (AA) group completed more HW than students with learning disabilities (LD).</p> <p>Spelling Completion: AA completed more HW than LD group.</p> <p>Math Test: AA scored higher than LD group, but the same in real-life plus reinforcement phase.</p> <p>Spelling Test: LD scored higher than the AA group.</p> <p>Over All: All students (AA and LD) increased completion percentages and test performances.</p>
Reference	Bryan, T., & Sullivan-Burstein, K. (1998). Teacher selected strategies for improving homework completion. <i>Remedial and Special Education</i> 19(2), 263-275.
Participants	<p>Study #2 of 3</p> <p>33 LD students with HW problems.</p> <p>Six LD students without HW problems.</p> <p>Only one student from Study #1</p> <p>Three new Teachers, seven from first study.</p>
Research Questions/Purpose	<p>Study #2</p> <p>The purpose was to examine the impact of using a HW planner on HW completion of student with LD and AA with and without HW problems.</p>
Dependent Variables	<p>Study #2</p> <p>The completion rates of daily homework assignments in Mathematics and Spelling. These subject areas were the dependent variables primarily because these subject areas were common to all six grades.</p>

Independent Variables	<p>Study #2</p> <p>At the beginning of the school year, all children in the school were given homework planners, and teachers were given an in-service on how to use the planners. Parents were notified that the students were going to use the planner and were invited to sign their child's homework and send messages to their child's teacher using the planner. Students were given two weeks of instruction on how to use the planner. Participating teachers recorded homework completion as they did in Year 1.</p>
Experimental Design	<p>Study #2</p> <p>The analysis was based a three-factor MANOVA, comparing group (LD, AA), homework problems (problems, no problems), and planner use (Year 1, no planners; Year 2 planners) across two dependent measures (homework completion rates in math and spelling).</p>
Results	<p>Study #2</p> <p>AA with HW problems completed more HW with the planners than those not given one. LD with HW problems and no planners completed less HW than all other groups. HW planners provided daily communication lines between teacher and parent. Study provided support for use of HW planner.</p>
Reference	<p>Bryan, T., & Sullivan-Burstein, K. (1998). Teacher selected strategies for improving homework completion. <i>Remedial and Special Education</i> 19(2), 263-275.</p>
Participants	<p>Study #3 of 3</p> <p>Teachers and students from Year 2.</p>
Research Questions/Purpose	<p>Study #3</p> <p>The purpose was to assess the impact on Spelling and Math HW completion of graphing by four groups of students with and without LD and with and without HW problems.</p>
Dependent Variables	<p>Study #3</p> <p>Completion of spelling and math homework.</p>
Independent Variables	<p>Study #3</p> <p>For two weeks students used a sheet with half-inch vertical lines to make weekly graphs for spelling and for math. Each day, students acted as peer monitors and checked one another's homework for completion. Students then colored their graphs with red (not turned in), green (completed and on-time), or yellow (complete but late). At the end of the week, teachers did a spot check for accuracy.</p>
Experimental Design	<p>The analysis was based on a three MANOVA- group- (LD, AA), problem (HW problems, no HW problems), and graphing (no graphing, graphing) – across the dependent</p>

	variables of math and spelling homework completion.
Results	<p>Study #3</p> <p>No significant effect for math HW completion was demonstrated. Graphing resulted in significant ($p=0.01$) in spelling HW completion. LD and AA with HW problems did improve completion percentages and test scores. They never reached the same performance levels as AA with no HW problems. Teachers, parents and students liked the visual display.</p>
Reference	Callahan, K., Rademacher, J.A., & Hildreth, B.L. (1998). The effect of parent participation in strategies to improve the homework performance of students who are at risk.
Participants	26 students and families; six females, 20 males; at-risk secondary students
Research Questions/Purpose	Purpose of the 10-week investigation was to determine the effect of parents' facilitating a home-based program using self-management and reinforcement strategies to increase the homework and academic performance of their children at risk.
Dependent Variables	Homework performance: (a) homework completion (percentage completed) and (b) homework quality (percentage completed correctly) in math.
Independent Variables	<p>Self-management tools were applied to math homework. The self-monitoring intervention consisted of (1) monitoring and recording of homework start and end times, total time spent on the homework assignment, and whether or not the assignment was completed. (2) Self-recording had the students recording the number of correct and incorrect math problems completed. (3) Self-reinforcement aspect matched points (with parents) were earned for accuracy on self-monitoring activities. (4) Self-instruction and goal setting involved the student evaluation, scoring, and determination if an alternate assignment was needed.</p>
Experimental Design	<p>Multiple baselines across groups design were used to evaluate this study. The 26 students were divided into three groups based on year-round school track and at-risk placement. The experiment was 10 weeks concluding with the end of the school year. Treatment was staggered across groups after students and parents completed training. During Baseline students received individualized a homework folder. Parents facilitated self-management (matching) during the intervention, including positive reinforcement of student performance.</p>
Results	Overall, homework completion and homework quality increased during intervention. The percentage of homework

	<p>assignments completed increased for 20/26 participants, with an average of 110% improvement. The t test indicated a significant difference, $t(25) = -4.37$, p less than 0.001. Homework quality also improved over baseline levels. An average baseline score of 25.9% increased to 62% during intervention with $t(25) = -5.34$, p less than 0.001. Thus, the effectiveness of homework (Anderson et al., 1986; Bradshaw & Amundson, 1985) and self-management strategies for academic tasks was extended (Reid & Harris, 1992; Trammel et al., 1994).</p>
Reference	<p>DiGangi, S.A., Maag, J.W., & Rutherford, R. B. (1991). Self-graphing of on-task behavior: Enhancing the reactive effects of self-monitoring of on-task behavior and academic performance. <i>Learning Disability Quarterly</i>, 14, 221-230.</p>
Participants	<p>Two females with LD; ages 10-11 of average IQ (WRISC-R). Significant attention and performance problems. Resource services daily, five days a week for math instruction.</p>
Research Questions/Purpose	<p>What effects does self-graphing, self-evaluation, and self-reinforcement have on improving reactivity of self-monitoring on-task behavior upon productivity and accuracy of two students with LD?</p>
Dependent Variables	<p>Two dependent variables were assessed: on-task behavior and academic performance (productivity and accuracy). Math academic performance was assessed by monitoring (a) the number of problems answered correctly (accuracy) and (b) the number of problems completed (productivity).</p>
Independent Variables	<p>Self-graphing, self-evaluation, and self-reinforcement.</p>
Experimental Design	<p>A single-subject multiple-treatment design was employed for a total of six experimental phases – Baseline; five days students' on-task, off-task and mathematics performance was recorded during independent seatwork. Self-monitoring; students were instructed to ask themselves "Was I paying attention?" each time they heard a tone on a tape recorder (tones were randomly spaced from 30-90 seconds apart). Students were instructed to make a tally mark in the "on-task" column, on a 3 x 5 card if they were working on their independent math seatwork at the sound of the tone, or to make a tally mark in the column "off-task" if they were not working at the sound of the tone. Self-monitoring and self-graphing; This phase lasted 5 days, subjects continued to mark tallies for on-task or off-task behavior at the sound of the recorded tones. In addition they plotted the number of on-task marks on a simple, continuous</p>

	<p>graph. The observer continued to record on-task and off-task behavior and academic performance (productivity and accuracy). Self-monitoring, self-graphing, and self-reinforcement; this phase lasted 4 days. The subjects were asked to continue recording and plotting the number of on-task behaviors tallied during the session. In addition they were instructed by the observer in how to self-reinforce themselves “I did a really good job” at the end of each session. Self-monitoring, self-graphing, self-reinforcement, and self-evaluation; this two day phase were identical to those in the previous phase with the addition of self-evaluation component. Student were instructed to tell themselves: “I did a really good job” if eight to ten marks were tallied and “I did okay” if four to seven marks were tallied for on-task behavior. Fading; this phase occurred two weeks after terminating the intervention phases to determine maintenance of behavior change. Subjects no longer self-recorded or self-graphed their on-task behavior, instead they were instructed to self-evaluate and self-reinforce their performance.</p>
Results	<p>On-task behavior for both students and academic performance improved during self-monitoring. Additional increases with self-graphing were noted. Little improvement in on-task behavior and academic productivity with self-reinforcement and self-evaluation. Academic accuracy increased for both students.</p>
Reference	<p>Gajria, M. & Salend, S. J. (1995). Homework practices of students with and without learning disabilities: A comparison. <i>Journal of Learning Disabilities</i>, 28(5), 291-296.</p>
Participants	<p>48 LD and 48 non-disabled students grades 6-8</p>
Research Questions/Purpose	<p>To examine the homework practices and views concerning homework of both groups of students.</p>
Dependent Variables	<p>Purpose of this study was to examine the homework practices and views concerning homework of both groups, students with LD and students without disabilities.</p>
Independent Variables	<p>The Student Survey of Homework Practices (SSHP) was used to examine students’ attitudes and practices with regard to completion of homework assignments.</p>
Experimental Design	<p>A questionnaire, the SSHP, was used to investigate students’ homework related problems. Students were instructed to rate the frequency of each statement using a Likard-like scale (0=never, 1=at times, 2=often, and 3=very often). Teachers of mainstreamed student chosen, the teacher also randomly selected a non-disabled classmate to complete the</p>

	questionnaire.
Results	Students with LD engaged to a grater extent in practices what interfered with HW completion. Some of these practices included trouble allocating time and attention to work assignments, motivational issues, and the lack of study skills. Both groups said HW was not important, that they would rather be with friends, and they always began HW without a list of what to do.
Reference	Maag, J.W., Reid, R., & DiGangi, S.A. (1993). Differential effects of self-monitoring attention, accuracy, and productivity. <i>Journal of Applied Behavior Analysis</i> , 26, 329-344.
Participants	Six Students with LD; four males, two females. Ages 7.3 to 11.4. IQ range 90-101 (WISC-R)
Research Questions/Purpose	Purpose was to investigate the social validity of behavior change produced by self-monitoring and contingent reinforcement upon the on-task behavior and academic productivity.
Dependent Variables	Three target variables were identified: (1) percentage of on-task behavior (2) academic productivity (number of problems completed), and (3) academic accuracy (percentage of problems completed correctly).
Independent Variables	Self-monitoring of attention, self-monitoring of productivity, and self-monitoring of accuracy.
Experimental Design	A combined multiple schedule design and multiple baseline across subjects was used to assess the effects of self-monitoring. Introduction of independent variables was staggered for three sets of dyads, hence, three multiple baseline designs were implemented concurrently across 2 subjects each. To minimize carryover effects only one self-monitoring procedure was presented per day, with a 24 hours lapse between conditions. Experimental Phases included: baseline, self-monitoring, choice, fade, and follow-up. During Baseline Tape-recorded tones were introduced to account for possible effects of the signaling device on student performance. No specific instructions were provided. Self-monitoring : Took place only in the general education classrooms. Training occurred in the special education resource room before the independent practice session. One 20 min. session was presented for each self-monitoring procedure immediately before the first session of the alternating-treatments phase for that procedure. The treatment order each day was randomly determined, however, no condition occurred more than three times per student within a calendar week. The Choice

	<p>phase: at the conclusion of the self-monitoring phase, an experimenter to determine which self-monitoring procedure they preferred interviewed students. Fade phase: Self-monitoring was faded using a sequential withdrawal design (Lloyd et al., 1989). Fading occurred the first school day after the choice phase. Signals were no longer used, however students could continue to use self-monitoring when they thought about it. Two days later the students were instructed to stop using the self-monitoring of their performance. Follow up: After discontinuing self-monitoring, data on students' on-task behavior and academic productivity and accuracy were collected for two additional sessions to assess maintenance of treatment effects. The first follow up occurred immediately after the fade phase, the second took place 10 days after Session 1.</p>
Results	<p>On-task behavior and academic productivity improved under both interventions. However, no pattern emerged among self-monitored target variables for on-task behavior. Improvements were equal to levels of on-task behavior and academic productivity demonstrated by non-handicapped peers. This was inconsistent with past finding Lloyd et al., (1989), Roberts and Nelson (1981), and Rooney et al., (1985). Fourth grades showed increased productivity; problems completed and percentage of problems correct. Sixth graders accuracy of self-monitoring increased percentage of problems correct, whereas productivity self-monitoring increased number of problems completed. These results support the superiority of self-monitoring productivity or accuracy. These findings suggest that students can effectively and independently use self-monitoring can assist in the integration of students with mild handicaps. Generalization looks promising due to the fact that the self-monitoring procedures were taught in the special education resource room but were implemented in the general education classrooms.</p>
Reference	<p>McLaughlin, T.F. (1984). A comparison of self-recording and self-recording plus consequences for on-task and assignment completion. <i>Contemporary Educational Psychology</i>, 9, 185-192.</p>
Participants	<p>12 Student with EBD; nine males, three females. 10 years 2 months to 12 years 3 months. Self-contained setting.</p>
Research Questions/Purpose	<p>Purpose was to compare self-recording and self-recording plus backup consequences for accurate self-scoring of on-task responding to that of a non-treatment control group.</p>
Dependent Variables	<p>On-task behavior and assignment completion in reading and</p>

	spelling.
Independent Variables	Data was collected for both on-task behavior and assignment completion in reading and spelling for 12 special education students. The long-term effects of the two self-recording procedures were examined 6 months later to determine the possible maintenance of treatment effects.
Experimental Design	Three groups were randomly assigned. Pre-post tests were used with repeated measures. One control group received no treatment. One received self-recording only and one group received the self-recording plus reinforcement.
Results	Both self-recording and self-recording + reinforcement groups increased on-task behavior and assignment completion. Stronger effects were recorded for on-task than assignment completion. Self-recording + reinforcement group showed higher levels than just self-recording. Students said they enjoyed participating.
Reference	Prater, M.S., Joy, R., Chilman, B., Temple, J., & Miller S.R. (1991). Self-monitoring of on-task behavior by adolescents with learning disabilities. <i>Learning Disability Quarterly</i> , 14, 164-177.
Participants	Study #1 One African American female with LD, 17.2 years old, IQ 77 (WISC-R)
Research Questions/Purpose	Purpose was to show that adolescents with LD could successfully implement self-monitoring procedures in special and regular education settings and correspondingly improve their on-task behavior.
Dependent Variables	Study #1 Percentage of time on-task in resource math class.
Independent Variables	Study # 1 Self-monitoring with reinforcement.
Experimental Design	Study #1 AB with fading Once baseline data had been collected each subject was trained to use the self-monitoring procedure. When first initiated the intervals between audio tones ranged from random intervals of one minute to two and a half minutes. The total time the students spent self-monitoring ranged from 15 to 30 minutes daily. To establish reinforcement the students completed reinforcement surveys. Reinforcers ranged from permission to leave class for lunch one minute early to receiving pictures from a sports magazine. Reinforcement was administered daily. The reinforcers were faded along with the auditory tones.

	Fading of the self-monitoring and/or reinforcement was attempted by increasing the random interval at which the tone sounded.
Results	Study # 1 Student's on-task behavior increased
Reference	Prater, M.S., Joy, R., Chilman, B., Temple, J., & Miller S.R. (1991). Self-monitoring of on-task behavior by adolescents with learning disabilities. <i>Learning Disability Quarterly</i> , 14, 164-177.
Participants	Study #2 On Caucasian male with LD, 15 years old, IQ 92 (WISC-R).
Research Questions/Purpose	Purpose was to show that adolescents with LD could successfully implement self-monitoring procedures in special and regular education settings and correspondingly improve their on-task behavior.
Dependent Variables	Study #2 Percentage of time on-task in self-contained special education classroom.
Independent Variables	Study # 2 Self-monitoring with reinforcement.
Experimental Design	Study #2 ABC with fading Initially reinforcers were not used in this study. However, due to the student's lack of interest and unwillingness to continue the investigator initiated reinforcement coupled with the self-monitoring program. Reinforcers were administered weekly.
Results	Study # 2 Student's on-task behavior increased
Reference	Prater, M.S., Joy, R., Chilman, B., Temple, J., & Miller S.R. (1991). Self-monitoring of on-task behavior by adolescents with learning disabilities. <i>Learning Disability Quarterly</i> , 14, 164-177.
Participants	Study # 3 One Caucasian male with LD, 14.5 years old, IQ 88 (WISC-R).
Research Questions/Purpose	Purpose was to show that adolescents with LD could successfully implement self-monitoring procedures in special and regular education settings and correspondingly improve their on-task behavior.
Dependent Variables	Study #3 Percentage of time on-task in resource program
Independent Variables	Study # 3 Self-monitoring with reinforcement.
Experimental Design	Study #3

	ABAB with fading The reinforcers were administered daily
Results	Study # 3 Students' on-task behavior increased
Reference	Prater, M.S., Joy, R., Chilman, B., Temple, J., & Miller S.R. (1991). Self-monitoring of on-task behavior by adolescents with learning disabilities. <i>Learning Disability Quarterly</i> , 14, 164-177.
Participants	Study #4 One Caucasian male with LD IQ 96 (WISC-R)
Research Questions/Purpose	Purpose was to show that adolescents with LD could successfully implement self-monitoring procedures in special and regular education settings and correspondingly improve their on-task behavior.
Dependent Variables	Study #4 Percentage of time on-task in Study Hall. Percentage of time on-task in Social Studies.
Independent Variables	Study # 4 Self-monitoring
Experimental Design	Study #4 Multiple baselines across settings with fading, but daily data were not taken. No reinforcers were administered for this study.
Results	Study # 4 Students' on-task behavior increased in Study Hall, but not in Social Studies
Reference	Prater, M.S., Joy, R., Chilman, B., Temple, J., & Miller S.R. (1991). Self-monitoring of on-task behavior by adolescents with learning disabilities. <i>Learning Disability Quarterly</i> , 14, 164-177.
Participants	Study #5 One Caucasian male with EBD/LD IQ 102(WISC-R)
Research Questions/Purpose	Purpose was to show that adolescents with LD could successfully implement self-monitoring procedures in special and regular education settings and correspondingly improve their on-task behavior.
Dependent Variables	Study 5 Percentage of time on-task in resource government and resource English classes.
Independent Variables	Study # 5 Self-monitoring with reinforcement.
Experimental Design	Study #5 Multiple baseline across settings with fading Reinforcers were administered daily.
Results	Study # 5

	Students' on-task behavior increased in both resource classes.
Reference	Reid, R. & Harris, K.R. (1993). Self-monitoring of attention versus self-monitoring of performance: Effects on attention and academic performance. <i>Exceptional Children</i> , 60 (1), 29-40.
Participants	28 students with LD, approximately 11 years old, IQ approximately 88; 19 African Americans, nine Caucasians, 25 males, three females.
Research Questions/Purpose	1. Is self-monitoring appropriate for learning situations? 2. Will self-monitoring of attention (SMA) or self-monitoring of performance (SMP) lead to increased achievement? And 3. Is there a difference of effects between the two conditions on academic performance?
Dependent Variables	On-task behaviors: (a) pronouncing words on the spelling list, (b) checking words on the spelling list, (c) eyes focused on the spelling word, (d) writing words, or (e) performing any step in the spelling study procedure or self-monitoring procedures. Average number of daily correct practices for each students was measure by counting the numbers spelling words practiced correctly each week and dividing by the number of practice sessions. Spelling achievement was measure by counting the number of words spelled correctly on weekly spelling tests.
Independent Variables	SMA and SMP of spelling practices.
Experimental Design	A randomized group design, which addressed the possibility of differential effects of SMA and SMP in terms of attentional behaviors, amount of spelling practice, achievement, and maintenance. Data were analyzed by using separate 2 x 3 univariate, repeated-measures ANOVA's with intervention order as a between subjects factor and intervention (SSP, SMA, SMP) as within-subjects factors. Effect sizes were computed using pooled variance and adjusted for sample size. P less than 0.01 were set to analyze data.
Results	No significant between-subjects or interaction effects were found; therefore only within-subjects effects were reported. Effect sizes were 0.53 (SMP-SSP) and 0.86 (SMA-SSP). No other contrasts were significant. Two students were excluded from the analysis because of missing data. On-task behavior substantially increased with both SMA

	and SMP. The number of correct practices substantially increased with SMP than with SSP. Spelling achievement was lower in SMA than SSP and SMP phases. Student interviews indicated SMA was viewed as intrusive. SMA does not appear to be the best way of self-monitoring for students on all assignments.
Reference	Trammel, D.L., Schloss, P. J., & Alper, S. (1994). Using self-recording, evaluation, and graphing to increase completion of homework assignments. <i>Journal of Learning Disabilities</i> , 27 (2), 75-81.
Participants	Eight students; six male, two female. 13 years 9 months to 16 years 0 months of age, grades 7-10.
Research Questions/Purpose	Purpose was to investigate the effects of a self-monitoring procedures; self-recording, self-graphing + goal setting, and maintenance, on HW performance of secondary students with LD.
Dependent Variables	Percentage of completion and percentage of accuracy of HW assignments.
Independent Variables	Self-recording and self-graphing & goal setting
Experimental Design	Multiple baseline across subjects: A = 12 days for subjects 1,2,3; B= 11 days; C=9 day + A = 17 days for subjects 4 and 5; B= 11 days; C= 9 days + A = 22 days for subjects 6,7,8; B=11 days; C=9 days +
Results	Self-recording enhanced HW completion percentages. Self-evaluation and graphing enhanced the results of self-recording. General education teachers reported better attitudes within the general education settings. Students displayed an understanding of importance in HW completion and results of higher grades. Parents were satisfied with results.
Reference	Warton, P. M. (1997). Learning about responsibility: Lessons from homework. <i>British Journal of Educational Psychology</i> , 67, 213-221.
Participants	98 students; 50 female, 48 male from Sydney, Australia. Grades 2,4,6
Research Questions/Purpose	1). What practices do students report in regard to homework? 2). What understanding do children display about being responsible for homework? 3). Do these practices and understandings vary as a function of grade level or gender of the child?
Dependent Variables	Homework practices
Independent	Interviews

Variables																									
Experimental Design	Each student was interviewed and taped for about 15 minutes by one of two interviewers. Questions focused on whether the student knew what homework was, if they were given homework, what types of activities were they asked to complete and how they felt about doing homework. The taped interviews were transcribed and two independent judges coded the open-ended responses.																								
Results	<p>All students reported that they were given homework on a regular basis. Results were not described in detail. Results were presented in two sections: the reports of homework practices and the students' understanding of self-regulatory aspects of homework. Results did vary according to grade levels, but no effects were found due to gender.</p> <p>1). Student's reports of HW Reminders</p> <table><tr><th>Grade level</th><th>None</th><th>Verbal</th></tr><tr><td>Written</td><td></td><td></td></tr><tr><td>2</td><td>50%</td><td>50%</td></tr><tr><td>0%</td><td></td><td></td></tr><tr><td>4</td><td>15%</td><td>69%</td></tr><tr><td>15%</td><td></td><td></td></tr><tr><td>6</td><td>25%</td><td>44%</td></tr><tr><td>31%</td><td></td><td></td></tr></table> <p>Parents' reported employing a number of techniques such as inquiring about HW, giving explicit reminders, to checking the completed work Pattern of techniques were very similar across the three grades.</p> <p>2). Student's Understanding of HW</p> <p>Grade 2 students saw the purpose of HW as "to learn" (88%). At grade 4 (50%) had given the same answer. Other responses given included "so your parents see what you are doing" and "so you don't just sit in front of the TV." By grade 6 most students viewed HW as a revision process (59%) or learning process (19%). 6th graders gave a higher internal justification of doing HW on their own than the 2nd and 4th graders.</p>	Grade level	None	Verbal	Written			2	50%	50%	0%			4	15%	69%	15%			6	25%	44%	31%		
Grade level	None	Verbal																							
Written																									
2	50%	50%																							
0%																									
4	15%	69%																							
15%																									
6	25%	44%																							
31%																									

APPENDIX B

ASSENT AND PERMISSION FORM

Assent/Permission Forms
Minor Assent Form

DATE: _____

Dear Participant,

You are invited to participate in my project titled, "Applying Self-Recording and Self-Graphing Skill to Homework." Through this project I am learning about how I can improve my grades by tracking my homework.

If you decide to be part of this, you will allow me to work with you on your recording of homework and accuracy rates of your homework. You will talk to me about your homework. You will allow me to watch you and take notes while you are recording homework assignments and accuracy rates. Your participation in this project will not directly 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 improve your academic achievement levels. I hope to learn something about self-recording and self-graphing of homework accuracy rates 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. Vail at the following number: 542-4578.

Sincerely,

Terresa H. Shubert
Special Education Department
University of Georgia
706-542-4571

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.

For questions or problems about your rights please call or write: Chris A. Joseph, Ph.D., Human Subjects Office, University of Georgia, 606A Boyd Graduate Studies Research Center, Athens, GA 30602-7411; Telephone (706) 542-6514; E-mail Address: IRB@uga.edu

PARENTAL Permission Form

I agree to allow my child _____ to take part in a study titled, “Applying Self-Recording and Self-Graphing Skills to Homework”, which is being conducted by Mrs. Terresa Shubert Investigator, from the Special Education Department at the University of Georgia (542-4571) under the direction of Cynthia O. Vail (542-4578). I do not have to allow my child to be in this study if I do not want to. My child can stop taking part at any time without giving any reason, and without penalty. I can ask to have the information related to my child returned to me, removed from the research records, or destroyed.

- The reason for the study is to find out the effects of self-monitoring on homework assignments. Children who take part may improve their academic levels. The researcher also hopes to learn something that may help other children learn more about how self-monitoring of homework accuracy rate increases student achievement levels.
- If I allow my child to take part, my child will be asked to use self-monitoring skills in conjunction with their homework assignments. The researcher will track student records. The researcher will ask my child to do these activities daily. This activity will take place during spelling time, but will not interfere with academic instruction.
- The research is not expected to cause any harm or discomfort. My child can quit at any time. My child’s grade will not be affected if my child decides to stop taking part.
- Any information collected about my child will be held confidential unless otherwise required by law. My child’s identity will be coded, and all data will be kept in a secured location.
- I understand that I will be interviewed at the end of the study on my perceptions and I agree to complete the questionnaire.
- The researcher will answer any questions about the research, now or during the course of the project, and can be reached by telephone at: 706-335-5594. I may also contact the professor supervising the research, Dr. Cynthia O. Vail, Special Education Department, at 706-542-4578.
- I understand the study procedures described above. My questions have been answered to my satisfaction, and I agree to allow my child to take part in this study. I have been given a copy of this form to keep.

Name of Researcher Signature

Date

Telephone: _____

Email: _____

Name of Participant

Parent Signature

Date

Additional questions or problems regarding your rights as a research participant should be addressed to Chris A. Joseph, Ph.D. Human Subjects Office, University of Georgia, 606A Boyd Graduate Studies Research Center, Athens, Georgia 30602-7411; Telephone (706) 542-3199; E-Mail Address IRB@uga.edu

APPENDIX C
AGENDA PAGE

Agenda

January 2003

Math	Monday 5	Tuesday 6	Wednesday 7	Thursday 8	Friday 9
Science					
Social Studies					
Language Arts					
Spelling					

APPENDIX D
GRAPH PAPER

Graph Paper

100															
95															
90															
85															
80															
75															
70															
65															
60															
55															
50															
45															
40															
35															
30															
25															
20															
15															
10															
05															
0															
	M	T	W	TH	F	M	T	W	TH	F	M	T	W	TH	F

APPENDIX E

Student: _____

Phase: _____

DAY	M	T	W	TH	F
HW					X
TA	X	X	X	X	
TB	X	X	X	X	

Phase: _____

DAY	M	T	W	TH	F
HW					X
TA	X	X	X	X	
TB	X	X	X	X	

Phase: _____

DAY	M	T	W	TH	F
HW					X
TA	X	X	X	X	
TB	X	X	X	X	

Phase: _____

DAY	M	T	W	TH	F
HW					X
TA	X	X	X	X	
TB	X	X	X	X	

Phase: _____

DAY	M	T	W	TH	F
HW					X
TA	X	X	X	X	
TB	X	X	X	X	

Phase: _____

APPENDIX F
STUDENT DATA SHEET

Student Data Sheet

Baseline Condition

Terresa Shubert

(+) Received for recording of homework

(-) Received for not recording of homework

Studnet	Date	Date	Date	Date	Date	Date	Date	Date
Jessica								
Derrick								
Scott								
JW								

Studnet	Date	Date	Date	Date	Date	Date	Date	Date
Jessica								
Derrick								
Scott								
JW								

Studnet	Date	Date	Date	Date	Date	Date	Date	Date
Jessica								
Derrick								
Scott								
JW								

Studnet	Date	Date	Date	Date	Date	Date	Date	Date
Jessica								
Derrick								
Scott								
JW								

APPENDIX G

EXAMPLE ONE OF HOMEWORK ASSIGNMENT

Example One of Homework Assignment

Name: _____ Date: _____

Word List

Become	Chili	Only	Someone
Bury	Curl	Pear	Toy
Bushes	Fired	Pint	Walk
Cast	Flow	Should	Write
Chest	Fulfill	Soft	Young

Write each word three times.

[illegible]

Example Two of Homework Assignment

Name: _____ Date: _____

Fill in the missing vowels

Hint: Cross off each letter from this list after using it!

a i o o u o o i e u o a e e e e u u i
o o o e e i i i a u e o e u

1. ch__st	2. b__c__m__	3. c__ri
4. p__ __r	5. sh__ __ld	6. b__sh__s
7. t__y	8. b__ry	9. p__nt
10. w__lk	11. f__r__d	12. s__m__ __n__
13. ch__l__	14. __nly	15. fl__w
16. c__st	17. s__ft	18. f__lf__ll
19. y__ __ng	20. wr__t__	

Example Three of Homework Assignment

Name: _____ Date: _____

Crack the Code

Each spelling word has been changed using a secret code. The letters in the word have been changed using another letter. For example, A may really be a secret code for the letter Z. The code is the same for every word. You can use the following chart to help you remember the secret code.

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	X	Y	Z

1. YHUOG young
2. TINX _____
3. WZHUNV _____
4. WHFEHOE _____
1. CNHT _____
2. DIWJ _____
3. SEDHFE _____
4. QEIR _____
5. SUWZEW _____
10. WHCJ _____
11. QPOJ _____
12. DZEWJ _____
13. SURY _____
14. HONY _____
15. DURN _____
16. JHY _____
17. CPREV _____
18. CUNCPNN _____
19. DZPNP _____
20. TRPJE _____

Example Four of Homework Assignment

Name: _____ Date: _____

Word List

Become	Chili	Only	Someone
Bury	Write	Curl	Pear
Toy	Fired	Pint	Walk
Bushes	Cast	Chest	Flow
Should	Young	Soft	Fulfill

Write a sentence using each word.

1. become _____
2. bury _____
3. toy _____
4. bushes _____
5. should _____
6. chili _____
7. write _____
8. fired _____
9. cast _____
10. young _____
11. only _____
12. curl _____
13. pint _____
14. chest _____
15. soft _____
16. someone _____
17. pearl _____
18. walk _____
19. flow _____
20. fulfill _____

Example Five of Homework Assignment

Name: _____

Date: _____

Unscramble the words.

- | | |
|------------------|-------------------|
| 1. yot _____ | 2. otsf _____ |
| 3. urlc _____ | 4. scta _____ |
| 5. rpae _____ | 6. lhici _____ |
| 7. rbyu _____ | 8. tinp _____ |
| 9. thesec _____ | 10. eitrw _____ |
| 11. eubhss _____ | 12. ifllufl _____ |
| 13. eirfd _____ | 14. ylon _____ |
| 15. waki _____ | 16. eonosme _____ |
| 17. yuong _____ | 18. lfow _____ |
| 19. emoeqb _____ | 20. shulod _____ |

Example of Test B

Name: _____ Date: _____

Circle the correct word.

- | | | | |
|-------------|---------|---------|---------|
| 1. fulfill | flfill | fulfl | fulfill |
| 2. cast | castt | cast | caast |
| 3. young | younnng | youung | yung |
| 4. someone | someone | samione | sameone |
| 5. firred | farid | firid | fired |
| 6. flow | fflow | floow | fflow |
| 7. pinnt | piint | ppint | pint |
| 8. tiy | tooy | toy | ttoy |
| 9. bushes | buhes | bushes | bushis |
| 10. chali | chli | chili | chilli |
| 11. shoould | shold | sould | should |
| 12. currl | cirl | corl | curl |
| 13. poer | pearr | peaar | pear |
| 14. buryy | bory | bery | bury |
| 15. wallk | walk | wal | walkk |
| 16. chest | chestt | chist | chet |
| 17. writi | write | wwrite | writu |
| 18. onlly | oly | onl | only |
| 19. becomi | become | becomme | bacume |
| 20. sooft | soft | sof | soft |

APPENDIX H
COLLECTION FORMS

Collection Forms

Teacher Fidelity Form

Student: _____

Teacher: Terresa Shubert

Date: _____

Condition/Phase: _____

Reliability/Observers: _____

Trial	H.W. orally Presented	H.W. written On board	T waits for 30 sec. to write	T gives Attending Cue	T ensures Subject Attends	T gives Instructional Cue	T checked Agenda	Student Responses					
								HW		% HW		Graph	
								Yes	No	Yes	No	Yes	No
								Yes	No	%	Yes	No	NA
1													
2													
3													
4													
R %													

Date: _____

Condition/Phase: _____

Reliability/Observers: _____

Trial	H.W. orally Presented	H.W. written On board	T waits for 30 sec. to write	T gives Attending Cue	T ensures Subject Attends	T gives Instructional Cue	T checked Agenda	Student Responses					
								HW		% HW		Graph	
								Yes	No	Yes	No	Yes	No
1													
2													
3													
4													
R %													

Date: _____

Condition/Phase: _____

Reliability/Observers: _____

Trial	H.W. orally Presented	H.W. written On board	T waits for 30 sec. to write	T gives Attending Cue	T ensures Subject Attends	T gives Instructional Cue	T checked Agenda	Student Responses					
								HW		% HW		Graph	
								Yes	No	Yes	No	Yes	No
1													
2													
3													
4													
R %													

Date: _____

Condition/Phase: _____

APPENDIX I

AGENDA USE OUTSIDE RESOURCE ROOM

Agenda Use Outside Resource Room

Jessica

SUBJECT	M	T	W	TH	F
MATH					
SCIENCE					
SOCIAL STUDIES					
LANGUAGE ARTS					

Derrick

SUBJECT	M	T	W	TH	F
MATH					
SCIENCE					
SOCIAL STUDIES					
LANGUAGE ARTS					

Scott

SUBJECT	M	T	W	TH	F
MATH					
SCIENCE					
SOCIAL STUDIES					
LANGUAGE ARTS					

John

SUBJECT	M	T	W	TH	F
MATH					
SCIENCE					
SOCIAL STUDIES					
LANGUAGE ARTS					

APPENDIX J
QUESTIONNAIRE

Student Questionnaire

Student _____ Date _____

Please answer the following:

1. Did writing your homework in your agenda help you? How?
2. Did getting immediate feedback and recording the accuracy percentage of your homework help you? How?
3. Did graphing your accuracy percentage of your homework help you? How?
4. Did your spelling grades improve? Yes ____ No ____
 - a. If yes, how did recording or graphing your homework accuracy percentages affect your spelling grade?

Additional Comments:

Parent Questionnaire

Student _____ Date _____

Name: _____

Please answer the following:

1. Did you check your child's agenda? How often?
2. Did you check your child's homework for accuracy? How often?
3. Did you check your child's accuracy graph in the front of their notebook? How often?
4. Did you notice any change in your child's spelling achievement during the study? What did you notice?
5. Did you notice any change in your child's attitude toward homework during the study? What did you notice?
6. Do you think your child benefited from this study? How?
7. Have you noticed your child recording other assignment other than spelling into his/her agenda? Which classes?

Additional Comments:

Teacher Questionnaire

Student _____ Date _____

Name: _____

Please answer the following:

1. Do you check this student's agenda? How often?
2. Have you noticed an increase in assignment recording in his/her agenda? Since when? Explain.
3. Have you noticed this student graphing his/her grades for your class?
4. Have you noticed any change in this student's homework habits in your classroom? How?
5. Have you noticed any change in this student's attitude toward homework? What? If attitude has changed since when?

Additional Comments:

APPENDIX K
COMPLETED QUESTIONNAIRES

Student Questionnaire

Student Jessica Date _____* Jessica's comments are underlined.

Please answer the following:

5. Did writing your homework in your agenda help you?
Yes!
How?
I could keep up with my homework and the grades I got.
6. Did getting immediate feedback and recording the accuracy percentage of your homework help you? How?
Yes, I knew what I made and it reminded me of the grades I was getting.
7. Did graphing your accuracy percentage of your homework help you? How?
Yea, it was fun. I really like being able to see what my grades looked like, cause we used graphs in math class.
8. Did your spelling grades improve? Yes X No ____
If yes, how did recording or graphing your homework accuracy percentages affect your spelling grade?
That is what I thought.

Additional Comments:My teachers are always trying something new to help me. But this really worked.

Student Questionnaire

Student Derrick Date _____* Derrick's responses are underlined.**Please answer the following:**

1. Did writing your homework in your agenda help you? How?
Yea. I think it did.
2. Did getting immediate feedback and recording the accuracy percentage of your homework help you? How?
Yea. I like it when you get your grades back and see what you did.
3. Did graphing your accuracy percentage of your homework help you? How?
Sure. We learned how to graph in math class, but I didn't know that we could use it.
4. Did your spelling grades improve? Yes X No ____
 - a. If yes, how did recording or graphing your homework accuracy percentages affect your spelling grade?
My grades went up when I put them in my agenda and graphed them on the grid.

Additional Comments:Mrs. S is great about letting us know our grades, but this was fun!

Student Questionnaire

Student Scott Date _____* Scott's responses are underlined.

Please answer the following:

1. Did writing your homework in your agenda help you? How?
Sometimes. By reminding me what I made on my homework.
2. Did getting immediate feedback and recording the accuracy percentage of your homework help you? How?
No, I do my work when I can.
3. Did graphing your accuracy percentage of your homework help you? How?
Yea, it was fun to see it like that.
4. Did your spelling grades improve? Yes X No ____
 - a. If yes, how did recording or graphing your homework accuracy percentages affect your spelling grade?
guess that's why they did.

Additional Comments:

Student Questionnaire

Student John Date _____*** John's responses are underlined.**

Please answer the following:

1. Did writing your homework in your agenda help you? How?
I don't know.
2. Did getting immediate feedback and recording the accuracy percentage of your homework help you? How?
Yea, I don't know.
3. Did graphing your accuracy percentage of your homework help you? How?
Not really. It was a pain to do it.
4. Did your spelling grades improve? Yes X No ____
 - a. If yes, how did recording or graphing your homework accuracy percentages affect your spelling grade?
I don't know.

Additional Comments:

Does this mean I won't fail the 6th grade?

Parent Questionnaire

Student Jessica Date _____*** Parent responses are underlined.**Name: Jessica's Dad**Please answer the following:**

1. Did you check your child's agenda? How often?
Yes, usually every other day.
2. Did you check your child's homework for accuracy? How often?
NO
3. Did you check you child's accuracy graph in the front of their notebook? How often?
She showed it to me. I thought it was interesting and I did check it a couple of times.
4. Did you notice any change in your child's spelling achievement during the study? What did you notice?
Yes. She seemed to make better grades and she was always studying.
5. Did you notice any change in your child's attitude toward homework during the study? What did you notice?
She wanted to do as good as or better than she had the day before. This seemed to make her want to be better.
6. Do you think your child benefited from this study? How?
Yes, she has improved not only in spelling but in everything.
7. Have you noticed your child recording other assignment other than spelling into his/her agenda? Which classes?
Yea! All of them.

Additional Comments:

Why don't we do this in every class?

Parent Questionnaire

Student Derrick Date _____*** Parent responses are underlined.**Name: Derrick's Mother

Please answer the following:

1. Did you check your child's agenda? How often?
Yea, a couple of times.
2. Did you check your child's homework for accuracy? How often?
Once or twice, I work at night so not that often.
3. Did you check you child's accuracy graph in the front of their notebook? How often?
NO, but he did show it too me and he seemed really pleased with it.
4. Did you notice any change in your child's spelling achievement during the study? What did you notice?
Some, but not as much as he should have.
5. Did you notice any change in your child's attitude toward homework during the study? What did you notice?
Yea, when I checked with the teachers, they seemed pleased with his progress, so am I.
6. Do you think your child benefited from this study? How?
Yes, by improving his grades.
7. Have you noticed your child recording other assignment other than spelling into his/her agenda? Which classes?
Once or twice.

Additional Comments:

Parent Questionnaire

Student Scott Date _____*** Parent responses are underlined.**Name: Scott's Mother**Please answer the following:**

1. Did you check your child's agenda? How often?
A couple of times.
2. Did you check your child's homework for accuracy? How often?
When he showed it to me I did. But, he does not always show it to me.
3. Did you check you child's accuracy graph in the front of their notebook? How often?
Sometimes. He did not do it at first. But he did show it to me.
4. Did you notice any change in your child's spelling achievement during the study? What did you notice?
Yea, his grades did go up.
5. Did you notice any change in your child's attitude toward homework during the study? What did you notice?
Some, but he got into trouble and was not always in school.
6. Do you think your child benefited from this study? How?
Yes, because his grades went up. Maybe he will stay in school.
7. Have you noticed your child recording other assignment other than spelling into his/her agenda? Which classes?
Not really, only a couple of times.

Additional Comments:

I think this was great. I only wish he liked school more.

Parent Questionnaire

Student John Date _____*** Parent responses are underlined.**Name: John's Mother

Please answer the following:

1. Did you check your child's agenda? How often?
Yes, everyday.
2. Did you check your child's homework for accuracy? How often?
Not everyday. I work a couple of nights a week and I am not home. His dad isn't either.
3. Did you check you child's accuracy graph in the front of their notebook? How often?
A couple of times. He seemed to enjoy doing this.
4. Did you notice any change in your child's spelling achievement during the study? What did you notice?
Yes, I know he is smart and able to spell, but he just does not apply himself. This seemed to help him somehow.
5. Did you notice any change in your child's attitude toward homework during the study? What did you notice?
John has a bad attitude toward school in general. But this seemed to help cause he liked doing it.
6. Do you think your child benefited from this study? How?
I think so.
7. Have you noticed your child recording other assignment other than spelling into his/her agenda? Which classes?
NO.

Additional Comments:

Teacher Questionnaire

Student Jessica Date _____Name: Science Teacher*** Responses are underlined.****Please answer the following:**

1. Do you check this student's agenda? How often?
 Yes, once a week.
2. Have you noticed an increase in assignment recording in his/her agenda? Since when? Explain.
 Yes, she started only a day or so after you began your project.
3. Have you noticed this student graphing his/her grades for your class?
 Yes, this seemed odd at first, but then we talked again and I understood.
4. Have you noticed any change in this student's homework habits in your classroom? How?
 Jessica's work habits have changed. She is more confident in class and always has her homework. She is also doing better on her tests.
5. Have you noticed any change in this student's attitude toward homework? What? If attitude has changed since when?
 Jessica has always had a good attitude about my class. She enjoys science, but I have noticed she seems happier and more willing to respond.

Additional Comments:

Jessica is more prepared for class and she is more organized and confident.

Teacher Questionnaire

Student Jessica Date _____Name: Georgia History Teacher

* Responses are underlined.

Please answer the following:

1. Do you check this student's agenda? How often?
 NO, this is their responsibility. I do put their homework assignments on the board and tell them to write them down.
2. Have you noticed an increase in assignment recording in his/her agenda? Since when? Explain.
 I have not checked.
3. Have you noticed this student graphing his/her grades for your class?
 No.
4. Have you noticed any change in this student's homework habits in your classroom? How?
 Jessica has become more willing to share her answers in class. She does her homework more and test grades are improving.
5. Have you noticed any change in this student's attitude toward homework? What? If attitude has changed since when?

Additional Comments:

Jessica is more prepared for class on a daily basis. She is more organized and confident and her notebook grade has improved too.

Teacher Questionnaire

Student Derrick Date _____

Name: Derrick's Math teacher

*** Responses are underlined.****Please answer the following:**

1. Do you check this student's agenda? How often?
Once a week.
2. Have you noticed an increase in assignment recording in his/her agenda? Since when? Explain.
He has recorded more homework assignments in his agenda. I think this is why his grades have improved.
3. Have you noticed this student graphing his/her grades for your class?
NO
4. Have you noticed any change in this student's homework habits in your classroom? How?
Derrick has turned in more homework during your project than before. Look at his grades and you will see that they show higher grades for his completed homework.
5. Have you noticed any change in this student's attitude toward homework? What? If attitude has changed since when?
His attitude is better, but it could still improve. He seems better prepared than before.

Additional Comments:

I would like to know the results of this project. It seems to be showing some positive effects.

Teacher Questionnaire

Student Derrick Date _____Name: Derrick's English Teacher*** Responses are underlined.****Please answer the following:**

1. Do you check this student's agenda? How often?
Yes, every other day.
2. Have you noticed an increase in assignment recording in his/her agenda? Since when? Explain.
Yes, he seems to be recording his homework for your class but not for everyone's.
3. Have you noticed this student graphing his/her grades for your class?
He has written down most of his assignments for my class but I have not seen any graphing of his grades.
4. Have you noticed any change in this student's homework habits in your classroom? How?
Derrick is turning in more homework than before he began this project. His grades have improved but he is still not performing, as he should.
5. Have you noticed any change in this student's attitude toward homework? What? If attitude has changed since when?
Derrick's attitude has improved toward homework. He does not fuss as much and he is turning in more of it completed.

Additional Comments:

Please share the results of your project. I am interested in the time you spent in class and the end results on student out-comes.

Teacher Questionnaire

Student Scott Date _____Name: Scott's Social Studies Teacher*** Responses are underlined.****Please answer the following:**

1. Do you check this student's agenda? How often?
No, I feel the agenda is a tool for the students to use. I spend time at the beginning of the year instructing them how to use it, but it is up to them to actually use it.
2. Have you noticed an increase in assignment recording in his/her agenda? Since when? Explain.
I do not know. I do not check it.
3. Have you noticed this student graphing his/her grades for your class?
I have not seen Scott graphing anything in my class.
4. Have you noticed any change in this student's homework habits in your classroom? How?
Scott is a very time consuming student. I have noticed that he spends some of his free time working on his spelling assignments.
5. Have you noticed any change in this student's attitude toward homework? What? If attitude has changed since when?
Scott's attitude toward school has changed, even though he was suspended a couple of times this year. He is happier and seems to get more of his work completed.

Additional Comments:I do not know what you expected to happen in my class. I think his attitude has improved more than anything else.

Teacher Questionnaire

Student Scott Date _____Name: Scott's English Teacher**Responses are underlined.****Please answer the following:**

1. Do you check this student's agenda? How often?
I check agenda's for homework assignments daily.
2. Have you noticed an increase in assignment recording in his/her agenda? Since when? Explain.
He has copied down his assignments from the board more in the past couple of months.
3. Have you noticed this student graphing his/her grades for your class?
I have not noticed graphing of any sort.
4. Have you noticed any change in this student's homework habits in your classroom? How?
Scott has completed more homework at a higher accurate rate than before the study began.
5. Have you noticed any change in this student's attitude toward homework? What? If attitude has changed since when?
Scott's attitude toward school is not the best. It has changed for the better in the past couple of weeks. Why I really do not know.

Additional Comments:I would like to discuss the results of this study upon completion.

Teacher Questionnaire

Student John Date _____Name: John's English Teacher*** Responses are underlined.**

Please answer the following:

1. Do you check this student's agenda? How often?
I check several student agendas daily. John happens to be one whose mother requested that I check it.
2. Have you noticed an increase in assignment recording in his/her agenda? Since when? Explain.
John does not use his agenda. I have noticed he is recording homework assignment for spelling.
3. Have you noticed this student graphing his/her grades for your class?
John does not graph in my class.
4. Have you noticed any change in this student's homework habits in your classroom? How?
John's homework habits have not changed this year.
5. Have you noticed any change in this student's attitude toward homework? What? If attitude has changed since when?
John's attitude has not changed. He is borderline failing and may fail again this year.

Additional Comments:

Interesting project. I would enjoy reading the results.

Teacher Questionnaire

Student John Date _____Name: John's Math Teacher*** Responses are underlined.****Please answer the following:**

1. Do you check this student's agenda? How often?
I check agenda every Friday and record weekly averages.
2. Have you noticed an increase in assignment recording in his/her agenda? Since when? Explain.
The only assignments written in John's agenda are his spelling assignments. I believe this began at the start of your project.
3. Have you noticed this student graphing his/her grades for your class?
I taught graphing skills in my class. However, I have not noticed him graphing since we covered the skills in class.
4. Have you noticed any change in this student's homework habits in your classroom? How?
No changes have been noticed.
5. Have you noticed any change in this student's attitude toward homework? What? If attitude has changed since when?
John has a poor attitude toward and I am concerned that he will drop out when he turns 16. I hope not but he seems do disinterested in learning.

Additional Comments:

I would like to know your results of this study. He is copying assignments for you and if that is any indication I may need to know what you did so I can instruct my students too.

Teacher Questionnaire

Student John Date _____Name: John's Social Studies Teacher*** Responses are underlined.****Please answer the following:**

1. Do you check this student's agenda? How often?
NO, I do not check student agenda on a regular basis. I do conduct spot checks.
2. Have you noticed an increase in assignment recording in his/her agenda? Since when? Explain.
I have noticed that he is recording spelling assignments on a daily basis.
3. Have you noticed this student graphing his/her grades for your class?
I have noticed his graphing of spelling assignments stapled to the front of his agenda. But, no other graphs are there.
4. Have you noticed any change in this student's homework habits in your classroom? How?
He seems to do one or two assignments for me.
5. Have you noticed any change in this student's attitude toward homework? What? If attitude has changed since when?
John's attitude has changed slightly since you began your program.

Additional Comments: