THE EFFECTS OF SELF-MONITORING TECHNIQUES ON

HOMEWORK TIMELINESS

A THESIS

SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS

FOR THE DEGREE OF MASTER OF ARTS

IN THE GRADUATE SCHOOL OF THE

TEXAS WOMAN'S UNIVERSITY

COLLEGE OF ARTS AND SCIENCES

BY

ELLA DENISE DAVIS, A.A., B.A.

DENTON, TEXAS

AUGUST 2005

ABSTRACT

ELLA DENISE DAVIS

THE EFFECTS OF SELF-MONITORING TECHNIQUES ON HOMEWORK
TIMELINESS

AUGUST 2005

The purpose of this study was to examine the effects of self-monitoring techniques on a

student's ability to turn in their homework on time. In this study, students were asked to

keep track of the number of days they turned in their homework on time and to graph

those results at the end of each week. Forty students enrolled in three elementary fifth

grade general education mathematics classes (32 males, 33 females) participated.

Participants were randomly assigned to either the experimental group (homework

monitoring) or the control group (breakfast monitoring). Results of a Chi Square and a

General Linear Model Repeated Measures ANOVA indicate no significant differences

between students who monitored the rate at which they turned in their homework on time

and students who do not. Findings from the present study were not congruent with the

theory of previously conducted research and consequently did not support the hypotheses.

ABSTRACT

ELLA DENISE DAVIS

THE EFFECTS OF SELF-MONITORING TECHNIQUES ON HOMEWORK TIMELINESS

AUGUST 2005

The purpose of this study was to examine the effects of self-monitoring techniques on a student's ability to turn in their homework on time. In this study, students were asked to keep track of the number of days they turned in their homework on time and to graph those results at the end of each week. Forty students enrolled in three elementary fifth grade general education mathematics classes (32 males, 33 females) participated. Participants were randomly assigned to either the experimental group (homework monitoring) or the control group (breakfast monitoring). Results of a Chi Square and a General Linear Model Repeated Measures ANOVA indicate no significant differences between students who monitored the rate at which they turned in their homework on time and students who do not. Findings from the present study were not congruent with the theory of previously conducted research and consequently did not support the hypotheses.

TABLE OF CONTENTS

APPENDICES

LIST OF TABLES

LIST OF FIGURES

CHAPTER 1
INTRODUCTION

It is common knowledge that teachers assign homework to their students on a regular basis. Some students do well on their homework assignments, while others do not. Most return their homework assignments in a timely manner while others struggle with getting their assignments turned in on time. Homework was intended to serve as a means to improve students' academic success and to increase the number of opportunities students have to practice new skills and learn new content (Hughes, Ruhl, Schumaker, & Deshler, 2002). In addition, homework was designed to enhance students' attitudes toward education and reinforce self-discipline and good study habits, to stimulate students' thinking about selected topics and increase student involvement in the learning process, and lastly, it accounts for a large percentage of the time students spend on academic tasks (Bryan & Burstein, 1998).

The homework process begins as teachers choose topics and contents of assignments (Epstein & Voorhis, 2001). As teachers design homework assignments, they consider various purposes for which the assignments will be used. Epstein and Voorhis (2001), for example, reported purposes for which teachers assign homework to their students. Included among these purposes were a) to practice skills taught in class, b) preparation for the next lesson, c) to increase student involvement in learning and applying specific skills and knowledge, d) to build student responsibility, e) to build

1

perseverance, f) to teach time management skills, g) to build self-confidence and feelings of accomplishment, h) to guide and promote positive communications between parent and child, i) to keep families aware of topics taught in class and to keep parents informed about their child's progress, j) to encourage peer interactions, k) to fulfill school or district policies and to demonstrate to parents and to the public that schools have standards for student work, and l) when necessary, to correct problems with student conduct or productivity (Epstein & Voorhis, 2001).

Homework was defined by Hughes et al. (2002) as extended academic tasks that are to be completed outside of the formal school setting. For that reason, problems getting students to do their homework are long-standing and are considered universal (Bryan & Burstein, 1998). Problems such as off-task behaviors, disorganization, and deficits in verbal expressive language interfere with homework completion and result in educational and behavioral deficits that make completing both class work and homework assignments difficult. Other problems encountered by students that might interfere with the homework process include difficulty understanding assignments, inaccurately recording them, remembering to take material home, setting aside time to do the work, organizing necessary materials, following through and completing the work, putting it in a safe place, remembering to take it back to school, and needing someone to remind them to do the homework (Bryan & Burstein, 1998). According to Bryan, Burstein, and Bryan (2001), problems encountered by students doing homework increase as they age. Therefore, "a student's ability to sustain or increase his or her own willingness to engage

in and complete homework assignments is important for understanding learning and performance" (Wolters, 1999, p. 281).

Seeing that homework is an essential requirement of schooling (Hong & Lee 2000) improving the homework performance of students should be viewed as an important component of the educational process (Bryan & Burstein, 1998). Hill, Spencer, Alston, and Fitzgerald (1986) noted that "since the launch of the Russian Sputnik in 1957" (p.58), the American public has called for an increase in the quality of homework.

While studies of interventions designed to contribute to solving the homework dilemma have focused on areas such as a) the effectiveness of using homework to improve students' academic performance, b) strategies used to improve their organizational skills through self-monitoring of homework completion, and c) the influence of parental involvement on homework completion and performance (Bryan & Burstein, 1998), few studies have focused on the importance of homework timeliness.

Therefore, in response to this void, it is the desire of the author to provide classroom teachers with an intervention tool that may be implemented in the classroom with students who repeatedly have trouble turning in their homework on time. Potential implications to be made during the study include providing a useful tool that might be used to increase individual student awareness of behavior. Another potential implication is that the self-monitoring technique may provide immediate feedback to the student thereby influencing his or her decision to make positive changes in their behavior.

The focus of this study is first directed toward a discussion and review of existing literature written in regards to homework practices. Through the discussion, topics covered will relate to some aspect of homework such as motivation, problems with homework, interventions, self-efficacy, self-regulation, and self-monitoring. These areas have been suggested as important for student academic success. Finally, to extend and update the literature, the problem of homework timeliness will be addressed by asking fifth grade students to self-monitor the rate at which they return their homework assignments. The author considers the rationale for teaching students to use the self-monitoring strategy on the timeliness of homework as important. Teaching students to turn in their homework on time is clearly an important part of the educational process toward academic success. Many students have received lower grades due to failure to turn in homework on time. Teachers have verified this statement by reporting that they have either deducted points from a student's potentially earned grade or have assigned a grade of zero to a student's work for not turning in homework on time.

Taking this problem into account, the current study seeks to examine whether self-monitoring techniques are congruous with previously held opinions that self-monitoring techniques are effective in changing an individual's behavior. The author seeks to address the following research questions: a) is there a significant difference in the rate of homework turned in between the Experimental group and the Control group when they are self-monitoring as compared to when the teacher is monitoring, b) is there a significant difference between the Experimental group and the Control group in the

4

amount of homework turned in, and c) did the self-monitoring exercise make a significant difference in the amount of homework turned in?

In order to address the research questions more clearly, several terms will be operationalized. For the purpose of this study, the term "homework timeliness" will be used to describe a student's ability to turn in his or her homework on time. On time will be established by allowing the teacher to determine when students are to turn in their homework. The term "self-monitoring" will be used to refer to the process by which individual students keep track of and record their own homework assignments and indicate whether they were in compliance with the criteria for turning in their homework on time.

CHAPTER 2

LITERATURE REVIEW

As attention is being directed toward assessment and grading practices which are considered an essential aspect of teaching, McMillan, Myran, and Workman (2002) conducted a study to determine which factors were most often used when assigning grades to students. They also hoped to determine whether meaningful relationships existed between grade level, subject areas, assessment, and grading practices. Regular education elementary teachers ($N = 921$) from 124 schools near Richmond, Virginia responded to a questionnaire designed to assess the types of assessment and grading practices most often used. Teachers answered questions in the specific subject areas of language arts and mathematics based on four specific research questions: a) the current state of assessment and grading practices, b) the major components of assessment and grading practices, c) existing relationships between assessment and grading practices and grades given to students, and d) the relationships between grade level, subject area, assessment, and grading practices (McMillan et al., 2002).

In their analysis of the data, results from the questionnaire revealed that of all factors measured, academic performance contributed to assessment and grading practices most (McMillan et al., 2002). Few differences were found between language arts and mathematics assessment and grading practices. According to McMillan et al. (2002) differences occurred only for the extent to which performance assessments such as

individual student projects and publisher provided assessments were used. No differences were found between mathematics and language arts when considering factors such as effort, participation, homework, and cognitive levels. When the authors examined the relationship between grade level and assessment and grading practices, the results indicated no differences between grade levels for both language arts and mathematics. However, it was noted that as grade level increases, the importance of homework, extra credit, and constructed-response assessments also increases. Constructed-responses referred to essays, projects, and individual performance on quizzes. Along with a variety of factors considered, completion of homework and the quality of homework influenced teachers' assessment and grading practices (McMillan et al., 2002).

Grades are often used to communicate student progress; however, there are many problems associated with grading. For instance, Jongsma (1991), a reading teacher, discovered that grades can be misleading or conceal evaluative information that may be useful to students and parents and better represent the learning process. Grading criteria may not be clear or function as a representation of tangible standards. What constitutes failure in one school district may be different in another. A student's grade may not always reflect his or her actual progress or what they need to know in order to improve (Jongsma, 1991).

Another problem with grading practices, as reported by Jongsma (1991), was the assigning of zeros. According to Jongsma, "zeros are frequently given for incomplete work, late work, or missing homework" (p.318). This can have a devastating effect on a

student's grade point average. Jongsma mentioned, for example, a student with a grade point average of ninety; add one zero to the existing grade point, and the grade drops to seventy-nine. Add two zeros to the ninety and the student receives a grade of seventy. This, according to Jongsma (1991), is a failing grade in some school districts. Thus, as suggested by Jongma (1991), it is time to rethink how grades are assigned and used to report student progress.

Given that positive relationships between homework and academic achievement have been reported, Cullen, Cullen, Hayhow, and Plouffe (1975) reported that grades were often used as incentives for increasing student motivation in the classroom. Cullen et al. (1975) noted that grades were typically used as either negative or positive incentives by promising to take away points or to add them. They uncovered a number of studies which investigated the motivational power of grades as incentives. For that reason, Cullen et al. (1975) tested hypotheses in regard to the motivational power of grades. Their hypotheses were: a) the use of grades as a positive or negative incentive results in greater assignment completion than when no incentives were offered, b) negative incentives elicit greater assignment completion than positive incentives, and c) when used as a negative incentive, the greater the level of intensity, the greater the assignment completion.

Suburban, middle-class high school students ($N = 233$) from freshman health classes, junior psychology classes, and a freshman English class were included in the study (Cullen et al., 1975). Students were given two days to complete a one-page written

library assignment. Within each school the assignment was identical. They differed, however, in subject matter among schools. Each class was randomly assigned to one of the experimental conditions. Positive incentive levels ranged from 0 to +12. Negative incentive levels ranged from -1 to -7. Students in the positive conditions were told that if they handed in their assignment, points would be added to their final grade for that particular grading period. Additionally, students in this group were told that if they did not turn in their assignment, their grade would not be affected in any way. On the other hand, students in the negative condition were told that if they did not turn in their assignment, they would lose points on their final grade for that grading period. In the control condition (zero incentive), students were told that neither completion nor non-completion of the assignment would affect their grade for the grading period (Cullen et al., 1975). The results indicate that based on the level of incentive employed, the percentage of assignment completion in classes operating under negative conditions ranged from 25% to 88%, whereas in the positive condition, assignment completion ranged from 0% to 50%. In addition, when the results were combined into two groups, (negative incentives and positive incentives), 64% of the negative group completed the assignment and 35% did not. In the positive groups, 41.7% completed the assignment and 58.3% did not (Cullen et al., 1975).

The results suggested that when grades are used as either a negative or positive incentive, negative incentives produce a more powerful motivation force (Cullen et al., 1975). When students are faced with losing points and the possibility of falling below an

academic standard necessary to secure their goals, they are most likely to complete assignments to avoid the penalty and subsequent failure. The more points that are taken away or added, the greater the probability the student will perceive completion of the assignment as either necessary or worth the effort (Cullen et al., 1975).

Homework is frequently viewed by many as a source of difficulty and conflict at home and school. One source of difficulty can be seen in those who fail to achieve academically (Holland, 1998). Although failure to achieve academically is not a new phenomenon, it has, however, recently become an increasingly topical issue and is one of the most important reasons for separation among male students (Holland, 1998). For these students, problems such as truancy, drop-outs, and behavioral and emotional problems in the classroom are the reason attention has been directed toward the role and influences of the schools on the academic achievement of its students (Holland, 1998).

Holland (1998) conducted a study to examine possible causation for underperformance among male students. Holland recruited 8-year-old males from high, average, and low average ability groups as participants. In this study, participants responded anonymously to a questionnaire and later openly during a group interview if they so desired. Results from the questionnaire suggested that male students have an unrealistic view of their academic performance and potential. For example, when asked how they thought they were doing at school, 48% of the group felt they were doing okay, while another 14% reported they were actually doing well (Holland, 1998). During the interview, when allowed to elaborate, those responding admitted 1) that homework was

10

not high on their list of priorities; 2) that they would rather spend time with friends rather than doing homework; 3) that school work should be done at school rather than at home; and 4) regardless of consequences, most decided not to do their homework at all. Some reported that they only did their homework just "to get it out of the way" (Holland, 1998, p. 177).

In a related study, where underachievement was defined as a marked discrepancy between expected and actual performance, Lau and Chan (2001) examined the motivational characteristics of underachieving Hong Kong students. Hong Kong Chinese, seventh grade students ($N = 126$) were divided into three different achievement groups: high achievers, low achievers, and underachievers. Students were assessed on the following measures: intellectual ability, verbal ability, academic achievement, general task value perceptions, and learning strategies. Student intellectual abilities were assessed by the Raven Progressive Matrices which are a non-verbal test of general intelligence. In addition, the Standard Progressive Matrices were used to sample a general range of abilities. Students' general task value perceptions were assessed by Eccles and Wigfields expectancy-value model. The Motivated Strategies for Learning Questionnaire (Pintrich, 1991; as cited in Lau & Chan, 2002) was used to measure students' learning strategies. A thirty-five item vocabulary test was used to supplement a measure of students' ability and examine whether verbal ability could be related to academic underachievement. Since standardized achievement tests were non-existent for junior high students in Hong Kong,

results from a school examination served as a measure of academic achievement (Lau & Chan, 2001).

In Lau and Chan's (2001) study, students were administered assessment measures during regularly scheduled class periods by their teachers. Teachers received basic administration instructions from the authors. Students were identified as underachievers, high achievers, and low achievers by calculating a discrepancy score between their achievement score (school examination) and their standardized intelligence scores. Students with discrepancy scores higher than 1 were assigned to the underachieving group. Students with difference scores less than one and with above average achievement scores were considered as high-achievers, and students with difference scores less than one and with below average achievement scores were assigned to the low-achievers group. The results of the study indicated that regardless of intellectual ability, the performance of under-achievers was attributed to effort, study skills, and interest in study. More importantly, underachieving student's value of academic tasks was viewed as an important factor for determining their academic behavior and achievement. Consequently, the performance of such students may be improved when they employ effective learning strategies and take interest in and experience success during the learning process (Lau &Chan, 2001).

Cooper, Jackson, Nye, and Lindsay (2001) examined student relationships between homework and achievement. According to Cooper et al. (2001), variations in the relationship occur at different levels at different periods throughout their educational

12

process. Thus, Cooper et al. posited that a student's attitude toward homework and the amount of homework they complete is often influenced by their home and community environments. Areas related to the homework process such as individual student ability level, parent attitudes toward homework, and the homework norm created by the behavior of other students in the class were investigated. It was hypothesized that completion would mediate the relationship between students' attitude toward homework and their classroom grade (Cooper et al., 2001).

To test their hypothesis, Cooper et al. (2001) constructed the Homework Process Inventory, which is a homework survey with different versions available for each grade level, parents, and teacher. Student norms were assessed by asking teachers to provide the number of students they thought actually finished their homework. The Tennessee Comprehensive Assessment Program (TCAP) was used to assess student ability. Three items were used to assess the availability of economic and time-related resources, and parent-reported items, such as: parental feelings about homework, parental opinions on whether they believed that homework helped their children learn, whether parents believed that homework increased or decreased their child's interest in school, whether homework helped their child's study skills, and whether homework helped their child learn to manage their time (Cooper et al., 2001).

Homework outcome results revealed that student norms were positively related to homework environment and the degree of parent facilitation (Cooper et al., 2001). The results further revealed that parents' attitude toward homework was associated with

student's attitude toward homework. However, homework completion was not associated with student and family background or home and community variables. Finally, student's attitude toward homework did not predict homework completion or classroom grade. On the other hand, classroom grades were positively related with homework completion, student ability, and parent facilitation (Cooper et al., 2001).

Salend and Schliff (1989) asked elementary and secondary teachers ($N = 88$; 50 elementary and 38 secondary) of students with learning disabilities to respond to a 13-item questionnaire associated with homework practices. All of the teachers responded to items one and two on the questionnaire. However, only those who reported they assigned homework completed the remaining items on the questionnaire. While the results indicated that special education teachers employed homework practices such as varied instructional goals and types of assignments, individualized assignments, and varied methods of presentation as instructional tools in their classrooms, several problems with homework were noted. For instance, 85% of the teachers reported having problems motivating their students to complete their homework. Another 43% reported they sometimes fail to discuss and review homework assignments with their students, 40% reported they did not grade homework on a regular basis, and 42% reported they did not include student's performance on homework when assigning grades during any given grading period (Salend & Schliff, 1989).

Polloway, Epstein, Bursuck, Jayanthi, and Cumblad (1994) conducted a national survey of homework practices to investigate the types of adaptations general education

teachers made regarding homework for students with disabilities. The term adaptation was used to refer to the "instrumental strategies used prior to homework to prepare students for assignments" (Polloway et al., 1994, p.501). To locate participants for the study, the authors generated a full listing of all local school districts from a United States Department of Education (1986 –1987) Index. From those school districts chosen, three schools within the district were randomly selected for a total of 1,950 schools. General education teachers ($n = 3$) from each school were asked to complete a four-page survey centered on general education practices. Of the teachers selected, one completed the survey on homework, while the other two completed surveys on testing and grading practices. The survey included questions relating to homework: frequency, amount, type, teaching strategies prior to and after assignments completion, homework adaptations, strategies for communications with families, and professional responsibility for adaptation (Polloway et al., 1994).

The study by Polloway et al. (1994) included 2,124 teachers (1,416 in the testing and grading condition, 708 in the homework practices condition). Teachers were mailed a letter describing the purposes of the study, a copy of the study, and a return envelope. If the teachers did not have or had not had any students with disabilities mainstreamed into their classrooms, they were asked to pass the survey on to a teacher who had.

The results revealed that the types of homework most often assigned included completion of unfinished work, enrichment and make-up work, preparation for future work, and test preparation (Polloway et al., 1994). Concerning the issue of consequences

for homework completion or noncompletion, teachers reported using nine specific strategies when students with disabilities failed to complete assignments and six for the completion of homework. Strategies used for failure to complete an assignment included the lowering of grades, talking with students about why the assignment was not completed, calling their parents, keeping students after school, keeping students in during recess, requiring correction and resubmission, putting their names on the board, and making adaptations in the assignments. Strategies used for completion of homework included: presentation of rewards for completion, charting student performance, recording performance in the grade book, providing corrective feedback in class, offering praise for completion of homework, and calling their parents. The practices rated as being most helpful in getting students to improve were talking to the student, assisting them with the assignment, and making adaptations. Those rated as least helpful were lowering of their grades, putting their names on the board, and keeping them after school or in during recess. Although the lowering of grades was considered among the least helpful for elementary teachers, middle and high school teachers viewed this strategy as more helpful (Polloway et al., 1994).

In an effort to offer solutions to problems with getting students to do their homework, Lieberman (1983) admitted that it had taken her 10 years to come up with what seemed to be a plausible solution to the homework problem. Given that homework is to be done outside of the teacher's presence, teachers are not directly in control of whether the homework is done or not and parents have problems consistently monitoring

their children's homework. Therefore, the most often used strategy for lack of homework or unacceptable homework has been to assign after school detention (Lieberman, 1983). The problem with that, as reported by Lieberman, is that detention alone does little to eradicate the problem. Thus, Lieberman (1983) postulated a reversing and reconceptualization of the homework process. With this process, the student would have to earn the privilege of doing their homework at home. Lieberman proposed a five day probationary period for those who failed to do their homework. During the probationary period, the student would be required to stay after school for five consecutive days during which time he or she would have to report to what Lieberman termed the "homework room" (p.435). The "homework room" referred to the room where students were given the opportunity to complete any assignments. After successful completion of the probationary period, for the next five days, the student was required to alternate between doing their homework at home and at school. Once the student had proven they were capable of completing their homework, they were allowed to do their homework at home. In the event that a student failed to comply with the guidelines, he or she would again be placed on the in-school probationary period for another five days. Though it may sound strange, according to Lieberman (1983), this process is meaningful because students would no longer have a choice about whether they were going to do their homework or not and, after a given period, the student would come to appreciate the positive consequence of doing their homework at home as opposed to the negative consequence of staying after school to do it.

Bryan and Burstein (1998) allowed teachers to design strategies they thought would improve homework completion of students with and without disabilities. Over the course of two years, in three separate studies, the impact of different interventions on homework completion and weekly quiz performance was studied. In the first study, teachers selected reinforcement and real-life assignments as interventions. Students in kindergarten through sixth grades were selected to participate. Students were enrolled in both general and special education classes. Teachers defined students with homework problems as students who demonstrated erratic homework completion and/or those with accurate completion of 25% of assignments or less (Bryan & Burstein, 1998). As a means of verifying identification of students with homework problems, parents of targeted students were asked to complete Anesko, Schoiock, Ramirez, and Levine's Homework Problem Checklist (1987; cited in Bryan & Burstein, 1998). The team agreed to focus on students' math and spelling homework completion and performance on weekly math and spelling tests. During team meetings, teachers determined the purpose and goal of assigning homework. In Bryan and Burstein's (1998) study, teachers determined that homework would serve the following purposes: 1) to increase students' rates of homework return, 2) to develop homework assignments that would help students make connections between school learning and real life, and 3) to improve communications with parents and increase parent involvement with homework.

Over the course of 11 weeks, teachers collected baseline data by having students complete sheets from workbooks; memorize math facts; and practice spelling words.

Teachers also reinforced students for completing assignments, gave real-life homework assignments, and provided students with real-life assignments (Bryan & Burstein, 1998). The purpose of the real life assignments was to assist students with making connections between schoolwork and home life (Bryan & Burstein, 1998). For example, when the students were learning to tell time, their real-life assignment included putting the dials on a clockface to mark when they did things at home such as getting up or watching television. As expected, results from this study revealed that average-achieving students completed more spelling and math homework and outscored students with learning disabilities on weekly tests. The interventions appeared to have benefited students with learning disabilities with and without homework problems, and average-achieving students with homework problems.

In the second study by Bryan and Burstein (1998), teachers tested the impact of using a homework planner on homework completion of students with learning disabilities and average achievers with and without homework problems. The same definition of homework problems as described above was used. All students received homework planners. To resolve the problem of group identification, year one baseline data was compared with data collected during year two. Based on homework completion, data analysis revealed no main effect for group, homework problem, or condition. A significant difference was found for homework problem by planner interaction for math and spelling homework completion. The homework planners had a positive effect on

students with learning disabilities and average achieving students who had homework problems (Bryan & Burstein, 1998).

In the third study, Bryan and Burstein (1998) asked teachers to examine how to improve students' organizational skills and homework completion by having students graph their results. Students were given sheets of paper to graph results of homework completion in spelling and math. Results revealed a main effect for graphing on spelling homework completion but not for math. The results further demonstrated that using homework as a teaching strategy has significant benefits. Students with learning disabilities and average achieving students with homework problems showed improvements in homework completion and test scores (Bryan & Burstein, 1998).

Hong and Lee (2000) examined student preferences for the way they do homework and the effects of preferred styles on achievement and homework attitude. Chinese fifth grade ($n = 329$) and seventh grade ($n = 244$) students from urban schools in Hong Kong were selected to participate in the study. Several factors were evaluated: students' homework style, self-perceived homework behavior, teacher-rated homework achievement, and academic achievement in mathematics. The term self-perceived was used to refer to the process by which students responded to questions such as "If grades were given for homework, I would get a high score" (Hong & Lee, 2000, p. 129). In addition, in order to make a comparison between students' rate of completion and the quality of their homework, participating teachers were asked to rate their students' work in the area of mathematics.

20

Students received a group administration of the 80-item Homework Preference Questionnaire which was categorized into five areas: environmental, structure/organizational, motivational, perceptual/physical sensitivity, and individual/social (Hong & Lee, 2000). Statistically significant differences were noted between the high and low level groups in self-perceived homework achievement and attitude, between the two levels of teacher rated homework completion and quality scores in mathematics, and final exam scores in mathematics. In the area of self-perceived homework behavior, Chinese students who rated themselves as high self-perceivers were more self-motivated, persistent, responsible, and more likely to study alone than lower achievers. In addition, the high self-perceivers preferred a hands-on approach to homework than low-achievers. The results further indicated that fifth grade students in high completion groups were more self-motivated than students in low completion groups. Lastly, seventh grade students with higher completion scores reported higher levels on all motivational items, as well as stronger relationships between homework completion and motivation (Hong & Lee, 2000).

In an effort to find out which school policies were most effective in getting students to turn in complete and prompt homework assignments, Hartensteiner and Marek-Schroer (1992) divided sixth grade students into two groups. Each group received a different policy regarding homework. Both polices were identical except for the consequences stated for not returning complete and prompt homework. For example, in one of the schools, students were given two days after the homework assignment's due

date to turn in the assignment before receiving a grade of zero. In the other school, students were not given any extra time to turn in assignments. In that particular school, if a student did not turn an assignment in when it was due, they automatically received a grade of zero (Hartensteiner & Marek-Schroer, 1992). In addition, both groups of teachers sent home assignment slips when students failed to turn in complete homework assignments within the appropriate time frame. Results from this study indicate a significant difference between the numbers of times that the groups returned homework assignments. Group 1 had twice as many assignment slips sent home per student and showed fewer repeat offenders for nonexistent, late, or incomplete homework than Group 2. The authors concluded that more severe consequences for infractions were more effective in getting students to turn in homework promptly (Hartensteiner & Marek-Shroer, 1998).

Murphy and Decker (1989) employed part of a 37-item survey to address the issue of homework completion. Teachers in Illinois public high schools ($N = 2,986$) were asked to report on how they assigned homework to their students. Of the teachers responding to the survey, 73% assigned homework orally, 43% assigned homework by writing it on the board, 29% provided written directions to students, and 24% reported that they assigned homework via written contract with students. When asked to report on the homework completion rates of their students, 51% of the teachers reported that their students completed between 81% and 100% of their homework, and 30% of the teachers reported a completion rate of between 61% and 80%. It was also noted that a small

22

percentage of students (19%) completed less than 60% of their homework. Teacher reports of excuses provided by students for failure to complete their homework included: forgetting to do it, not enough time, failure to understand the assignment, had to go to work, too many other assignments, and choosing not to do it (Murphy & Decker, 1989).

Researchers have found that when the value of homework was stressed by parents who reviewed assignments with their children, those children realized how homework affected their success and presented teachers with homework assignments that were done well (Fink & Naven, 1972). If, however, proper supervision or internal motivation was lacking, additional motivation became necessary. To examine this possibility, Fink and Naven (1972) provided third grade students with sheets of paper with 100 math problems as a homework assignment each day for two weeks. The assignment was collected by the researcher the following morning. A record was kept of the number of examples completed correctly by each student and those who did not return their papers. After the two week period, children were divided into three groups. Group 1 continued to receive homework which was collected and recorded as before and received no reinforcements. Children in Group 2 received praise as they handed in their work. In addition to receiving praise, as children in Group 3 handed in their assignments, they were given candy as reinforcement instead of praise. Analyses were made to determine whether the frequency and thoroughness with which children completed their homework assignments increased following a reward and whether significant differences existed among methods of reinforcement or the order in which they were administered. According to Fink and

Naven (1972), only the children in Group 3 who received candy as reinforcement showed statistically significant increases in homework output. However, once the candy reinforcement was removed, students' outputs fell below their initial output. Hence, the authors concluded that material rewards were an effective motivator, but fail to produce lasting internal motivation for doing homework (Fink and Naven, 1972).

"Trying to motivate students to complete homework has been one of the most frequent and frustrating behavior problems for educators" (Killoran, 2003, p. 309). Killoran described and explained how theories of development influence the interpretation of such behaviors and interventions. The theories discussed by Killoran included behaviorism, constructivism, maturational theory, and ecological systems. When a student comes to school without his or her homework done, a behaviorist would identify the problem with homework as an issue of reinforcement. The goal of the teacher would be to find a way to reinforce the desired behavior (Killoran, 2003).

The constructivist would argue that if a child is not doing his or her homework, the work is not at a level in which the child can construct knowledge (Killoran, 2003). In other words, the child is not in the same period of development as the level of work and, therefore, the work does not get completed. This perspective assumes that the child should be the initiator of the activity and should be the person responsible for interacting with the environment. In this case, according to Killoran (2003), the goal of the teacher would be to set up the environment in such a way that would encourage homework completion.

While a maturationist might agree that problems with completing homework assignments might be due to a difference in developmental ability, in addition, he or she would also argue that the student may not be doing the homework "because they are not ready to do so" (Killoran, 2003, p. 310). Maturationists firmly believe that there are biological reasons for problems experienced. Consequently, there is nothing a teacher can do to change the situation. At best, it would be better to give the student something they can do and wait until they develop biologically to the point where they can understand the material (Killoran, 2003).

An ecologicalist, on the other, would conclude that failure to complete homework assignments are a result of how the child interacts with his or her environment in a series of systems (Killoran, 2003). The inability to complete homework may be due to an interaction with any of the systems (i.e. microsystem, mesosystem, exosystem, or macrosystem). In this case, the teacher would ask the child if there are problems occurring outside of the classroom that might interfere with his or her ability to complete homework assignments.

Ginsburg and Bronstein (1993) posited that motivational orientation plays an important role in academic performance and learning. In addition, motivation is seen as an important factor in the development of feelings of competence and has been emphasized in the role of environmental influences. Ginsburg and Bronstein (1993) examined three parent/family factors that have been linked to the intrinsic/extrinsic motivation orientation in the classroom: parental surveillance of homework, parental

reaction to grades, and styles of family interaction. It was hypothesized that: 1) parent surveillance of homework would be negatively associated with intrinsic motivation and academic performance; 2) parental reactions to grades that included criticism, punishment, uninvolvement, or extrinsic reward would be negatively associated with intrinsic motivation and academic performance, while parental encouragement would be positively associated with intrinsic motivation and academic performance; and 3) autonomy-supporting family styles would be positively associated with intrinsic motivation and academic performance while over- or undercontrolling family styles would be negatively associated with the student. To test these hypotheses, Ginsburg and Bronstein (1993) recruited 93 fifth-grade students and their parents. Participants were recruited from seven elementary schools taking part in a larger three-year study investigating family factors related to transition from elementary to middle school.

Ginsburg and Bronstein (1993) employed Harter's version of The Intrinsic versus Extrinsic Motivational Orientation (1980; as cited in Ginsberg & Bronstein, 1993) to measure students' motivation orientation for learning in the classroom and McDaniel's Inferred Self-Concept Scale (1973; cited in Ginsberg & Bronstein, 1993) to measure teachers' report of child intrinsic motivation. The Intrinsic versus Extrinsic Motivational Orientation contained five subscales: Preference for Challenge, Curiosity/Interest, Independent Mastery, Independent Judgment, and Internal Criteria for Success/Failure. The Inferred Self-Concept Scale, a six-item measure of classroom behavior, was modified by asking teachers to rate how frequently or to what extent each item described

a child's behavior in the classroom. In addition, several other areas were measured. School performance was measured by combining student academic grades into a total grade point average for the year in the following subject areas: reading, math, language, social studies, and science. Achievement scores were derived by including student's total battery percentile on the Stanford Achievement Test. Family factors were determined from items on a previously developed parent interview. Parental reactions to grades were measured with four types of reactions: negative control, encouragement, uninvolvement, and extrinsic reward. Bloom's (1985) Self-Report Measure of Family Functioning was used to assess child and parent perceptions of family styles (cited in Ginsburg & Bronstein, 1993). According to Ginsburg and Bronstein (1993), socioeconomic status is often associated with academic performance; it was included as a covariate in the analysis.

The hypotheses as put forward by Ginsburg and Bronstein (1993) were supported. Parental reaction to grades, uninvolvement, and extrinsic reward were negatively correlated with judgment, classroom behavior, grade point average, and achievement. Negative control was negatively correlated with classroom behavior, grade point average, and achievement and encouragement were positively correlated with mastery. These findings suggest that parental behavior is related to children's motivational orientation and performance. The findings further suggest that the more parents are involved with their children's homework the greater their dependence on an external source to guide and evaluate their academic behavior (Ginsburg & Bronstein, 1993). In addition, teacher

responses indicated that children showed less motivation, pleasure, and persistence in doing their work when extrinsic rewards were given. Hence, this study provided evidence that children who rely on external factors 1) rely on those sources for judging their success or failure in school, 2) prefer easy versus challenging tasks, 3) work to please others, 4) are less interested in schoolwork, and 5) are more dependent on sources outside of themselves for assistance (Ginsburg & Bronstein, 1993).

"It is important to understand how and why students are motivated for school achievement" (Linnenbrink & Pintrich, 2002, p. 313). Motivation, as defined by Linnenbrink and Pintrich (2002), is "a strong personal interest in a particular subject or activity" (p.314). According to Linnenbrink and Pintrich (2002), "motivation is not a stable trait" therefore, "students can be motivated in multiple ways" (p. 313). Linnenbrink and Pintrich (2000) considered many aspects of student motivation including self-efficacy, attributions, intrinsic motivation, and goal setting. They wrote that, since self-efficacy is one of the more important aspects of motivation, it has been positively linked to higher levels of effort and increased persistence on difficult tasks. Additionally, self-efficacy has been reported as being positively related to student cognitive engagement and the use of self-regulatory strategies. Thus, students with high levels of self-efficacy are more likely to work harder and achieve at higher levels. According to Linnenbrink and Pintrich, when efficacy beliefs are used accurately, students do not over- or underestimate their capabilities. While engaged, they focus on specific psychological

outcomes for future expectancies. These outcomes are further linked to engagement and achievement (Linnenbrink & Pintrich, 2002).

Another area useful for understanding student involvement with homework activities addressed by research is the influence of motivational regulation on academic functioning (Wolters, 1999). Wolters asserts that when a student is better able to regulate motivation and remain engaged, the student should be able to learn more than students less skilled at regulating their own motivation. Wolters (1999) tested this strategy by having students complete a survey which assessed their use of cognitive and metacognitive learning strategies: rehearsal, elaboration, organization, planning, monitoring, and regulation. Wolters' (1999) objective was to determine the relationship among the strategies, the frequency of use of the strategies, and the relationship between use of motivational strategies and their use of cognitive and metacognitive learning strategies. In addition, a preliminary analysis was conducted to establish whether the motivational regulation items could be used to form distinct and reliable scales. Results of the analysis produced the following scales: 1) Interest Enhancement, which measured students' tendency to make the task into a game or more relevant or enjoyable, 2) Performance Self-Talk, which reflected students' use of subvocal statements or thoughts designed to increase their desire to complete the task, 3) Self-Consequating, which measured students' use of extrinsic rewards for reinforcing their desire to finish academic tasks, 4) Mastery Self-Talk, which measured students' tendency to focus on or make salient their desire to learn task material in order to increase their level of motivation, and

5) Environment Control, which indicated the frequency with which students reported avoiding or reducing distractions as a means of ensuring their completion of academic tasks (Wolters, 1999).

Results from this study indicated that high school students rely on extrinsic forms of motivation more than on intrinsic forms of motivation (Wolters, 1999). As long as the strategies used were student initiated and controlled, they were used to increase students' effort, persistence, and engagement in academic tasks. Therefore the results suggested that students who actively regulate their motivation are more likely to use cognitive and metacognitive learning strategies than students who fail to regulate their motivation. In turn, these students could be expected to achieve better grades than students who fail to self-regulate their motivation (Wolters, 1999).

In a related study, in which Lan (1996) defined self-regulation in the learning process as "a student's ability to self-generate thoughts, feelings, and actions, which are systematically oriented toward attainment of goals" (p. 101), the lack of self-regulation was found to be associated with student underachievement. Lan postulated that self-regulated learning is possible only when individuals self-monitor their learning activities. Lan (1996) described self-monitoring as a process in which the learner evaluated the effectiveness of a particular cognitive strategy by determining how the strategy helped them make progress toward a goal and how much expenditure of time and effort the strategy required. To examine the concept, students in Group 1 were asked to record the frequency and intensity of their learning activities while students in a Group 2 were asked

to record the instructor's teaching activities. It was expected that when compared with the instructor monitoring group (Group 2), the self-monitoring group (Group 1) would perform better on course examinations, use self-regulated learning strategies more frequently, take more initiative in seeking mastery in learning, express more interest in the course, perceive stronger control over their learning environment, demonstrate more accurate self-judgment ability, and develop better knowledge representation of the course content (Lan, 1996).

In addition, Lan included two other characteristics considered to be important and effective in self-monitoring: regularity and proximity. Regularity was used to refer to the use of continuous, rather than intermittent monitoring of behavior. Proximity was the process whereby students monitored their behavior soon after its occurrence rather than some time afterward. Results from the Lan (1996) study revealed that the self-monitoring group performed better academically. Thus, Lan concluded that the behaviors demonstrated by the self-monitoring learner can be regarded as evidence of the importance of self-monitoring in self-regulated learning. The results further suggest that students who participated in the self-monitoring process were more alert to the effectiveness of the learning strategies and the appropriateness of their learning environment. This alertness further helped them to select the most effective strategies and arrange the environment to maximize learning (Lan, 1996).

Cancio, West, and Young (2004) summarized research which combined the use of self-management and parent participation on homework completion and homework

31

quality with students in grades 6 through 8 who were at risk for school failure. The purpose of the study by Cancio et al. (2004) was to examine the effects of self-management and parent participation on homework completion, homework accuracy, academic achievement, and teacher/parent rating of perceived homework problems of students with emotional and behavioral disorders (EBD). Self-management was defined as "strategies that individuals use to alter their behavior frequently to make a behavior less aversive to others and to replace it with a more appropriate behavior" (Cancio et al., 2004 p. 10). In order to be chosen as a participant, students between the ages of 11 and 15 years in grades 6 through 8 were required to have a homework completion average below 60%; a homework accuracy average below 60%; poor organizational skills; and poor time management skills. Six students met criteria. Five of the students were enrolled in both resource and mainstream classes. The other one was enrolled in a self-contained classroom all day.

Cancio et al. (2004) conducted parent training sessions in the home of each student, each lasting approximately one hour and fifteen minutes. The purpose of the training was to familiarize parents with the procedures of the program and research on homework, self-management, parent participation, and parent training. Parents also received a Parent Homework Notebook. Each notebook contained the following items: blank copies of a homework checklist and instruction sheet, copies of answer keys for math homework assignments and alternative assignments, a Homework Performance Log, a Homework Points Account Book, and a sample Student Reinforcement Menu.

After the completion of the training, each student received training on how to conduct the self-management and matching procedures. This training session lasted approximately 30 to 45 minutes. Each student received a homework folder that contained a homework program assignment notebook, a copy of the completed contract, and the Student Reinforcement Menu (Cancio et al., 2004).

To investigate the overall impact of a parent-assisted self-management program for homework completion, Cancio et al. (2004) employed a multiple baseline design across participants. To determine the percentage of homework assignments completed, an investigator collected the homework folders daily and examined the homework for completeness. Homework assignments were considered complete if the student returned the assignment within the amount of time indicated by the teachers and all problems of the assignment had been attempted (Cancio et al., 2004). Accuracy was determined by dividing the number of problems completed correctly by the number possible and multiplying by one hundred. Cancio et al. (2004) assessed student's academic achievement with Kaufman and Kaufman's (1985) Kaufman Test of Educational Achievement (KTEA). During the study, the KTEA was administered twice, prior to establishing the baseline and after the completion of the experimental condition. Parents verified the types of problems that their student was having by completing the Homework Problems Checklist as developed by Anesko and O'Leary (1982; cited in Cancio et al., 2004). In addition, parents verified that students followed the proper self-monitoring procedures by reviewing "matching sheets" (Cancio et al., p. 14). Each matching sheet

ascertained information about individual student homework behaviors. For example, parents noted the time their child started and finished their homework, the total time spent on homework, the location in which their child did their homework; and whether the child had proper materials to complete their homework (Cancio et al. 2004).

Results for the overall average baseline for all students in the area of assignment completion were 2%. On an individual basis, four of the students had a completion rate of zero, one had a completion rate of 8%, and the last one had a completion rate of 5%. After the administration of the experimental condition, the overall completion average rose to 92% and the individual completion average ranged from 81% to 100%. During the baseline for homework accuracy, the overall percentage again was only 2%. After the intervention period, however, the overall individual student homework accuracy ranged from 80% to 96%. The overall grade equivalent pretest scores on the KTEA mathematics subtest prior to baseline ranged from fourth-grade-first month to sixth-grade-third month. Overall posttest scores increased to a grade equivalent score of sixth grade-third month. Scores on the Homework Problem Checklist decreased from an average rating of 40 to an average rating of 16 (Cancio et al., 2004)

Schunk (1991) discussed academic motivation in terms of self-efficacy. Schunk described self-efficacy as "a mechanism underlying behavioral change, maintenance, and generalization" (p. 208). Stated differently, when presented with a task, those who believe they are capable of completing the task will complete it, whereas those who possess a low sense of efficacy for accomplishing the task may avoid it. When a student

receives information, such as "you can do it" that information provides the kind of feedback necessary for enhanced self-efficacy. According to Schunk (1991), motivation is greatly affected by goal setting. The motivational benefits of a goal depend on properties such as proximity, specificity, and difficulty. Goals that are proximal are said to promote self-efficacy and motivation better than goals that are seen as distant. Efficacy and motivation are raised more by goals that require specific performance standards than by goals that require general performance. Plans that are systematic and assist during the encoding of information and with task performance are viewed as desirable learning aids that influence self-efficacy and motivation. In order to support students' perceptions of their progress, sustain motivation, and increase efficacy for learning, prior successes are necessary. When linked with rewards, efficacy is enhanced and conveys that progress in learning is occurring. Given that ability is associated with learning, students adopt the idea of a goal increasing their competence and they persist and expend effort toward accomplishing a goal (Schunk, 1991).

Autry and Langenbach (1985) hypothesized that students who are taught to self-regulate their behaviors will view the behaviors as under personal control. As a result, constructive behaviors achieved through self-regulating will be maintained longer than increased rates achieved through external regulating. Thus, in order for learning to take place, the learner must engage in some type of constructive behaviors. Decreased disruptive behaviors achieved through self-regulation would be more enduring than those achieved through external regulation. The goal of the Autry and Langenbach (1985)

study was to assess the effect of learning self-regulating behaviors on locus of control orientation.

Students participating in the study conducted by Autry and Langenbach (1985) were fourth, fifth, and sixth graders ($N = 40$) who were identified by their regular classroom teachers as being disruptive in their classrooms. Subjects were randomly assigned to one of four groups: self-regulation to monitor constructive behaviors, self-regulation to monitor disruptive behaviors, external regulation group, or no regulation group. For this study, constructive behaviors were defined as: a) looking at a book or lesson-related paper, b) answering a question asked by the teacher, and c) engaging in any activity the teacher specifically requested. Disruptive behaviors were defined as: a) talking out or making inappropriate noises, b) physically disrupting other students, or c) leaving one's desk without permission (Autry & Langenbach, 1985). There were five phases in which some part of the treatment procedure was changed for one or more groups.

In the Autry and Langenbach (1985) study, baseline data was established during Phase I by having the observers record student data. During Phase II, subjects were monitored by observers and all subjects received reinforcement on the basis of observer's data. Each group received notice of the type of token reinforcement that could be earned. For example, subjects assigned to the self-regulation of constructive behaviors group received reinforcement for increases in constructive behaviors, while subjects in the self-regulating of disruptive behaviors groups received reinforcement for decreased disruptive

behaviors, and subjects in the external regulating groups received reinforcement for both increased constructive behaviors and decreased disruptive behaviors. Seeing that it was possible for subjects in the externalized behaviors group to earn tokens more quickly than subjects in either of the other two groups, the level of reinforcement in each case was changed. Constructive behaviors were reinforced on a scale of a) 15 or more constructive behaviors, b) 11 to 14 constructive behaviors, and c) 10 or fewer constructive behaviors. Disruptive behaviors were reinforced on a scale of a) zero behaviors, b) 1 to 5 disruptive behaviors, and c) more than 6 disruptive behaviors (Autry & Langenbach, 1985).

During Phase III of Autry and Langenbach's (1985) study, subjects in the self-regulation of constructive behavior and disruptive behavior groups were trained in self-regulating procedures. Self-regulation was defined as "occurring when an individual evaluated their own behavior and provided their own reinforcement" (Autry & Langenbach, 1985, p. 78). For example, each day, in addition to the observations made by the examiners, subjects in the self-regulation of constructive behaviors and the self-regulation of disruptive groups were allowed to record their own behavior as either constructive or disruptive. At the end of each session, in Phase III, subjects' behavior records were matched with the observer's. Based on accuracy of their self-observations, if their behaviors fell within acceptable limits, their behaviors were reinforced. On the other hand, in Phase IV, the students in both self-regulating groups were allowed to regulate their own behaviors and received reinforcement based on their records and not the accuracy of their self-observations. In Phase V, reinforcements were removed and all

subjects were administered Crandall, Katkovsky, and Crandall's (1965) Intellectual

Achievement Responsibility Questionnaire (IAR). This scale was used to assess students'

beliefs in reinforcement responsibility in the school setting (Autry & Langenbach, 1985).

Results of the Autry & Langenbach (1985) study revealed that students were

capable of monitoring their own behaviors with some degree of accuracy. The results

further revealed that increasing constructive behaviors is both different and more difficult

than decreasing disruptive behaviors. Reductions in disruptive behaviors produced

greater resistance to fading than those achieved through external regulation. Both the

external and self-regulating procedures were effective in establishing and maintaining

increases in constructive behaviors and decreases in disruptive behaviors. Both the

external and self-regulating procedures were effective in increasing constructive behavior

rates and in maintaining them (Autry & Langenbach, 1985). Results of the IAR, from

pre-test to post-test, indicated increases in students' locus of control within the self-

monitoring conditions when compared to the control group.

To understand the nature of high achieving students Ee, Moore, and Atputhasamy

(2003) assessed sixth grade students ($N = 566$) and 32 of their teachers from 34 schools

in Singapore on the following measures: academic achievement, goal orientations and

knowledge, and usage of self-regulated learning strategies. Two types of goals discussed

by Ee et al. (2003) were task goals and ego goals. While task goals focus on mastery of

learning, ego goals are those which emphasize completion, comparison, and performance

(Ee et al., 2003). At the student level, achievement was assessed by the Primary Six

Learning Examination; goal orientation was assessed with the Personal Goals Scale; and knowledge and usage of self-regulated learning strategies were assessed with Youlden and Chan's (1994) Self-Regulated Learning Strategies Scales (cited in Ee et al., 2003). Goal orientation also included the assessment of avoidance orientation of students. Teacher orientations and strategy-based instruction was measured by the Teacher Survey Questionnaire. According to Ee et al. (2003), this scale measured teachers' classroom practices, such as their enhancement of task and ego orientations and promotion of cognitive self-management.

Ee et al.'s (2003) study, examination of students' goal orientation, revealed that high-achieving students scored higher on task and ego orientations than on work avoidance orientation with a higher predisposition for task goals than ego goals (Ee et al., 2003). Students with high task and low ego goal orientations showed more positive achievement than student with high task and high ego goal orientations. Results of the study further revealed that even though high-achieving students reported having knowledge of their self-regulated learning strategies, they did not always use them. Further, students who favored task orientation over ego goals were more predisposed to greater knowledge and usage of strategies.

An examination of the types of classroom goal orientations employed by the teachers revealed that even though teachers employed both task and ego goal orientations in the classroom, task goals were used more frequently than ego goals. Further, teachers' goal orientation positively influenced students' achievement usage of self-regulated

learning strategies and ego orientation has a positive influence on students' achievement; student work avoidance goal orientation tended to have a negative influence on students' usage of self-regulated learning. Both work avoidance goal orientation and teachers' task and ego classroom goal orientation have negative impacts on students' knowledge of self-regulated learning. Usage of self-regulated learning was positively related to student academic achievement (Ee et al., 2003).

To find out what teachers do to motivate students to learn, Madden (1997) surveyed 126 elementary teachers and asked which approaches they employed in affecting student achievement. Two approaches were used most: goal setting and expectations. Examples of goal-setting activities utilized by teachers included using specific goals to be accomplished rather than instructing students to do their best; encouraging students to write a corrective plan of action when they failed to turn in assignments; and providing students with a second chance on tests when their grades were unacceptable. Of the teachers surveyed, 62% reported that they employed goal-setting, whereas 38% reported that they used academic expectations in their classrooms (Madden, 1997).

Positive outcomes from the use of instructional goal-setting indicated that students feel better about themselves and are willing to takes risks to learn; goal-setting increases motivation and self-pride in students; goal-setting improved students achievement and allowed them to experience more control and therefore, try harder to complete a goal (Madden, 1997). The results further indicated that when a goal was not

reached upon the first attempt, to avoid developing feelings of failure, students made another attempt at the goal and, finally, goal-setting provided students with ownership in their individual programs. Ownership acts as an impetus to achievement. Follow-up strategies used when students did not reach their goals included: asking the student what worked best for them and encouraging them to try again; a reevaluation of the initial goal and setting of new goals; providing individualized small group instruction to assist in reaching goals; and allowing more time to achieve the goals (Madden, 1997).

Madden (1997) found that, for those teachers who employed expectations, reward systems, pre-determined grading scales, requiring that assignments be completed and turned in on time, expecting students to do their best, and grades were used to motivate students to learn. The results revealed that students strive harder when they can reach academic expectations. Consequently, students who are unable to reach academic expectations often develop feelings of inadequacy, feel negative about themselves if they do not do well on report cards, and stop trying. Thus, Madden (1997) concluded the following: motivation is the desire to achieve a goal that has value for the individual; students work more diligently on self-made goals than from the expectations of others; goal-setting is the level of achievement that students establish for themselves; being specific in the developing of goals is more effective than telling students to do their best; students achieve best when goals are proximal; and individual goals are more effective than group goals.

Bahr, Fuchs, Fuchs, Fernstrom, and Stecker (1993) combined student- and teacher-monitoring strategies with teacher-student contingency contracts to show that student self-monitoring was as effective as teacher directed strategies. Middle school teachers ($N = 43$) were randomly assigned to a control group and to one of two experimental groups. In the teacher-monitoring condition, teachers assumed responsibility for implementing classroom intervention. Whereas, students were allowed to implement the interventions in the student-monitoring condition. Students in this study were described by their teachers as difficult to teach. In addition to the self-monitoring conditions, eight school-based support staff and four graduate students were used to assist teachers in the classroom and with data collection. Two types of monitoring strategies were employed: product inspection and interval recording. Each was determined by the types of behaviors displayed by the student, either academic or disruptive. If, for example, a student's problem was academic in nature, the use of product inspection required the individual monitoring the situation to note the student's level of attention, the off-task behavior, the amount and accuracy of the work to be completed, and goals to be met. On the other hand, if the student's problem was deemed a behavioral concern (e.g., talking out of turn, disturbing the teacher), interval recording required the individual to reflect upon the occurrence or nonoccurrence of target behaviors at intervals denoted by beeps from an audiotape cassette (Bahr et al., 1993). Monitoring components for this condition required identification of an activity where monitoring should occur, a description of the target behavior, duration of the recording

period, and notation of the behavior on the monitoring sheet. Teachers were further required to specify the type of work to be done, the allotted time frame for the work to be done, specified expectations such as amount and accuracy of work to be completed, and whether the goal was accomplished (Bahr et al., 1993). Results of the Bahr et al. (1993) study suggested that student monitoring with contracts may be as effective as teacher monitoring with contracts. The authors suggested that by allowing students to monitor their behaviors, teachers will be free to engage in other activities.

Trammel, Schloss, and Alper (1994) used self-monitoring to teach secondary students with learning disabilities to monitor, evaluate, and/or reinforce their own behavior. Research has shown that self-monitoring has been one of the most direct strategies involved in teaching students to identify and record occurrences of a target behavior. By having students record their homework assignments, graph the results of their homework completion, and set individual goals, Trammel et al. were able to show that self-monitoring successfully enhanced homework completion and attitudes toward homework in students. Assignments were taken from textbooks and curriculum packages which accompanied the textbooks. Before the implementation of the experimental conditions, teachers reviewed each assignment with the students. Each assignment was matched according to individual student ability (Trammel et al., 1994).

During the first phase of the intervention, students received instructions on how to complete their assignment sheets and were asked to record assignments daily. In addition, students were required to indicate whether their assignments were completed and turned in

on time. In order for an assignment to be recorded as completed and turned in on time, teachers were required to determine whether students had achieved a minimum grade of 70 or a letter grade of C on their work. In addition, teachers were asked to keep a daily log of the frequency of completed assignments and their accuracy (Trammel et al., 1994).

During the self-monitoring phase, students were asked to record their homework assignments on the assignment sheets. The next phase of the process involved the self-graphing of individual student progress (Trammel et al., 1994). Students were further required to set daily goals in regard to homework completion. Each student set goals which covered a three day period. Students were also rewarded daily for correctly recording their assignments. During the final phase of the experimental process, students were no longer required to graph the results of their homework completion and were allowed to complete assignment sheets at their discretion (Trammel et al., 1994).

Analysis of the data revealed that during the baseline period, the lowest number of assignments reported as completed by a student was zero and the highest number completed was four. However, after the introduction of the self-monitoring phase, teachers reported students completed between four and six assignments per day. According to Trammel et al., student performance levels were maintained during the self-graphing and goal-setting phases. During the follow-up phase, students were reportedly completing at least five assignments per day (Trammel et al., 1994).

Research has shown that student homework completion is associated with academic achievement. However, one of the problems associated with homework completion is

getting students to return the homework in a timely fashion. There is some evidence suggesting that homework can raise or lower a student's level of academic achievement. For instance, when students fail to turn in their assignments on time, teachers have been known to assign a grade of zero or deduct points from their grade.

For that reason, the present study will focus on teaching students to apply a self-monitoring technique to homework timeliness. For the purpose of this study, the term self-monitoring will be used to refer to the process of having individual students record and keep track of either the rate at which they return their homework or whether they ate breakfast or not. In addition, students will be asked to graph the results of their rate of homework timeliness. The independent variables 1) Repeated Measures with two levels (Pre-Test, Post-Test) and 2) Treatment (Experimental Group versus Control Group) will be used to determine the dependent variable, rate of timeliness, as measured by the percent of homework turned in on time.

It is hypothesized that: a) homework monitors will show an increase in their rate of homework timeliness in comparison to the breakfast monitors, b) the interaction effect is expected to show an increase from pre-test to post-test in homework timeliness for the homework monitors in comparison to the breakfast monitors. It is expected that increases in homework timeliness for the homework monitoring group will last into the post-test assessment, and c) In comparison to the homework monitoring group, breakfast monitors will show a level of homework timeliness that will remain equal from the pre-test to the post-test.

CHAPTER 3

METHODOLOGY

Participants

Sixty-five elementary school participants were selected to participate in this study. Participants were both male and female (32, 33 respectively) students currently in fifth grade. Students were of diverse ethnic backgrounds and were enrolled in general education mathematics classes. Of the students selected, 43 returned consent forms. Three participants were dropped from the study because they failed to sign the consent form (i.e., only a parent signature was provided). Consequently, 40 students participated in the study. Participants were randomly assigned to either the experimental group (homework monitoring) or the control group (breakfast monitoring). No compensations were awarded for participation in this study.

Materials

At the beginning of the treatment phase, each student received a folder containing the following items: a homework tracking or breakfast tracking sheet and a graphing sheet that was used for the duration of the study to graph their data (see Appendix A and Appendix B for examples of the graphing and tracking sheets). Daily entries were made to indicate whether the participant either turned in their homework on time or ate breakfast. The term timeliness was used to refer to whether the student met criteria for returning their homework assignment on time. This measure was determined by the classroom teacher.

In addition, the teacher received a log to keep track of participant homework timeliness. The same log was used during the pre-test and post-test. Each log contained enough spaces for the names and identification numbers of approximately 20 participants. Duplicate copies were made for each class section. In addition to spaces for each name and identification number, each log contained a space wherein the teacher indicated whether a participant turned in their homework on time. The teacher was also required to indicate whether an assignment was given or not. An example of each sheet is included in Appendix C.

Procedures

To obtain participants for this experiment, the Director of Student Services of a school district in northern Texas was contacted via verbal communication requesting permission to conduct the study. A brief proposal was submitted to the Director concerning the experimental procedures. After permission to conduct the study was received, the Director was asked to recommend an elementary school within the district that might be willing to participate in the study.

The primary investigator then contacted the principal of the elected elementary school via telephone to set up an appointment to speak with her about the study. During the meeting, the principal was presented the same brief proposal and asked to provide the name of a fifth grade teacher willing to participate in the study. The principal selected the fifth grade mathematics teacher and arranged a meeting with the primary investigator and the teacher.

At the beginning of the study, the mathematics teacher was asked to send a packet of information home with each potential participant. A letter of informed consent and a self-address stamped envelope was included in the packet. If consent was given, parents were asked to return the signed consent form directly to the home address of the primary investigator. A letter of informed consent was obtained for each student who participated in the study. In addition, assent was obtained from each student.

To be included in the study, each participant was required to have a signed consent form on file with the primary investigator. If a participant did not have a consent form on file, while the monitoring procedures were being conducted in the classroom, non-participants were given a different activity to do. This activity was left to the discretion of the teacher. In addition to the first criteria, participants were required to have the same teacher for Mathematics. The teacher was further required to use the same curriculum, as well as the same number and type of assignments for each class. Additionally, if a participant was absent from school for more than one week that participant's data was excluded from the study.

Pre-Test. During the pre-test, the teacher was asked to continue her normal procedures for issuing homework assignments. The teacher was also asked to keep a record of the names of each participant and indicate if the participant turned in their homework in a timely fashion. This information was recorded on the logs provided. Participants were asked to turn in their assignments each day according to the regular classroom procedures. If a participant turned in his or her homework on time, the teacher indicated so on the log sheet

by marking the appropriate space with a "+". If the homework was not turned in on time, the teacher indicated so by marking the appropriate space with an "x". If no assignment was given, the teacher indicated so by marking the appropriate space with an "o". The procedure continued for an approximate period of one week.

Treatment. The self-monitoring phase was implemented immediately following the collection of the pre-test data. Participants were randomly assigned to either the experimental group (homework monitoring) or the control group (breakfast monitoring). The following procedures were used to randomly assign each participant. The primary investigator received a list of names of the participants from each section of the three mathematics classes. As randomness is an important factor in the establishment of control, the traditional A-B random selection method was utilized to assign participants to either the homework monitoring or breakfast monitoring group.

For the purpose of this study, homework monitoring was used to refer to the process whereby individual participants kept track of and recorded the number of times they turned in their homework on time. Breakfast monitoring was used to refer to the process whereby individual participants kept track of the number of times they eat breakfast. Both groups were asked to record their data daily on the tracking sheets provided. At the end of the week, participants were asked to count the number of times they turned in their homework on time or ate breakfast and to graph the results on the graphing sheet. This procedure continued for approximately two weeks. Although accuracy was not a variable under investigation during this study, each participant's tracking sheet was checked by the primary investigator on a

weekly basis to endure that procedures were being followed. Participants received instructions on how to fill out tracking and graphing sheets.

Post-Test. At the end of the treatment phase, participants in both groups were asked to discontinue all procedures. No further instructions were given. However, for the next week, the teacher was asked to keep track of each participant's homework timeliness. The information was recorded on the same log that was used during the pre-test phase.

Experimental Design

The experimental design employed for this study was a 2 x 2 (Pre-Test x Post-Test; Treatment x Control) Repeated Measures Design. There were two independent variables including the repeated measure and the treatment. The dependent measure variable included the rate of homework timeliness as measured by the percentage of homework handed in on time.

CHAPTER 4

RESULTS

Measurement Check:

An initial Chi Square (χ^2) test was conducted on the frequency of homework completion for only the pre-test data. This was completed in order to demonstrate the equality of the treatment groups at the start of the experiment. Utilizing the variables of group assignment and pre-test scores, the χ^2 allows the test of obtained frequencies in the data set.

Results of the χ^2 test of association were not significant ($\chi^2 = 5.375, p = 0.068$). Average frequency of homework completion of the treatment group pre-test was found to be $M = 1.65, SD = 0.786$ while the average frequency for the control group pre-test homework completion was $M = 1.26, SD = 0.864$, which indicated that the frequency of homework for each group was not statistically different from each other.

Repeated Measures ANOVA:

A repeated measures analysis of variance was conducted in order to test the changes in homework completion for the experimental groups across the pre and post test. The 2 x 2 ANOVA included one between-subject independent variable (Treatment vs. Control) and one with-in-subject variable (Pre vs. Post-test). The results of the Repeated Measures ANOVA are presented in Table 1.

The results of the 2 x 2 ANOVA indicate that there was no significant main effect or interaction effects. Average pre-test and post-test scores for homework completion as a function of treatment group is presented in Figure 1.

Table 1

Title: *Analysis of Variance on Repeated Measures*

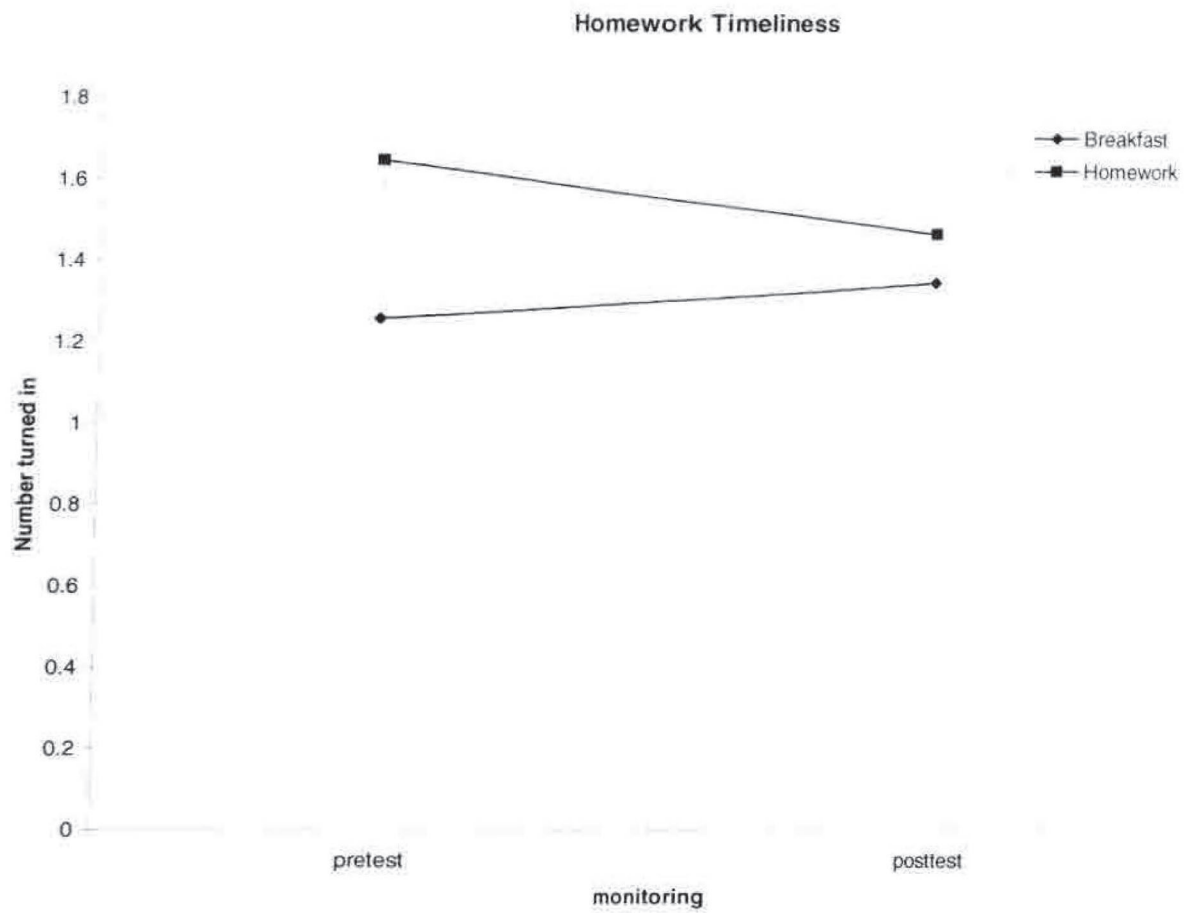| Source	SS	df	M S	F	P
		Between Subjects			
Intervention	1.266	1	1.266	1.246	.271
Error	38.621	38	1.016		
		Within-Subjects			
Blocks (B)	.039	1	.039	.133	.717
B x I	.339	1	.339	1.156	.289
Error	11.148	38	.293		

Figure 1. Graph of the average homework completions scores as a function of the Repeated Measures and Intervention.

CHAPTER 5

DISCUSSION

The following chapter will discuss in detail the findings derived by statistical analysis of the data. Initially, the discussion will focus on the findings and their correlation with previous research data. The discussion will then turn toward the implications of the findings for further research. The limitations of this study will then be examined in order to determine possible flaws and future possibilities for experimental improvement.

If self-monitoring techniques allow students to make immediate changes in their rate of homework timeliness as it was designed to do, we should have seen increases in the amount of homework turned in by those students who monitored their homework from pre-test to post-test. However, in this study, those changes did not occur. Therefore, the hypothesis that self-monitors would show an increase in their rate of homework timeliness in comparison to the breakfast monitors was not supported. The results did not indicate any significant differences between those students who paid attention to the rate at which they returned their homework on time and those who did not.

As teachers design homework assignments, they consider various purposes for which the assignments will be used. It is hoped that certain methods can be implemented to increase student compliance and success in school through homework activity. It can be assumed that teachers will continue to assign homework to their students on a regular

basis. Some students will do well on their homework assignments, while others will not. As homework was designed to enhance students' attitudes toward education and reinforce self-discipline, means to improve their performance are of great value. Individual differences in aptitude, achievement, and attitude play significant roles in homework behaviors. According to Bryan et al. (2001), problems encountered by students doing homework increase as they age. Therefore, "a student's ability to sustain or increase his or her own willingness to engage in and complete homework assignments is important for understanding learning and performance" (Wolters, 1999, p. 281).

Seeing that homework is an essential requirement of schooling (Hong & Lee, 2000), improving the homework performance of students should be viewed as an important component of the educational process (Bryan & Burstein, 1998). While studies of interventions designed to contribute to solving the homework dilemma have focused on a several aspects of homework, few studies have focused on the importance of homework timeliness.

This study's purpose was to extend and update the literature concerning the problem of homework timeliness by asking fifth grade students to self-monitor the rate at which they return their homework assignments. The results of this study indicated that the self-monitoring exercise did not have a significant effect upon the amount of homework turned in. As can be seen in the descriptive statistics table (see Table 1), the experimental and control groups showed very little difference in amount of homework

turned in. Mean homework scores at pre-test and post-test varied little between groups. This similarity can be attributed to several possible factors.

Although the present study attempted to address concerns of student homework timeliness, limitations of this study exist. First, due to end-of-year activities, there was a low amount of homework assigned. The average number of assignments given during the study was two per week. Second, the amount of time anticipated for the duration of the study was reduced from 6 weeks to 4 weeks with direct measures of self-monitoring lasting for 2 weeks. This obviously limited the effectiveness of the study. Hence, the duration of the experiment was not sufficient to reveal differences or prove to be an effective measure in making changes in their behavior. Third, a more structured approach to recording and tracking rate of homework timeliness may allow for more concrete data. Fourth, self-monitoring may have had no effect on an individual's ability to change his or her behavior. Finally, a larger subject pool that is more representative of the actual population may make the data more generalizeable.

Implications for further research include 1) a recreation of this experiment using a greater number of participants and for an extended period of time between pre-test and post-test, 2) adding a third group, a non-monitoring group, 3) beginning the self-monitoring activity earlier in the school year when more assignments are most likely to be given, and 4) adding a manipulation check, such as having the teacher continue to monitor student homework timeliness for the duration of the study to verify the accuracy of student self-report on the number of assignments given.

Another possibility would be to use a personality type indicator with students who are known to be chronically late in turning in homework or have missing homework. After using a type indicator, one could discern which types of students would benefit most from having homework monitoring interventions in place. Identifying these students would aid in the development of activities needed to produce, maintain, or even control more appropriate behaviors such as turning in homework assignments on time.

Still, another option, one may choose to use a Self Esteem Index to assess student attitudes toward school work. Allowing students with low scores on attitude toward school to succeed in the area of homework could foster improvement in that area. Small pieces of academic success could build upon each other and build self-esteem not only in school, but globally for those students.

REFERENCES

Autry, L. B. & Langenbach (1985). Locus of control and self-responsibility for behavior. *Journal of Education Research, 79*(2), 76-84.

Bahr, M. W., Fuchs, D., Fuchs, L. S., Fernstrom, P. & Stecker, P. M. (1993). Effectiveness of student versus teacher monitoring during pre-referral intervention. *Exceptionality, 4*(1), 17-30.

Bryan, T. & Burstein, K. S. (1998). Teacher-selected strategies for improving homework completion. *Remedial and Special Education, 19*(5), 263-275.

Bryan T., Burstein, K., & Bryan, J. (2001). Students with learning disabilities: Homework problems and promising practices. *Educational Psychologist, 36*(3), 176-180.

Cancio, E. J., West, R. P., & Young, R. (2004). Improving mathematics homework completion and accuracy of students with EBD through self-management and parent participation. *Journal of Experimental Education, 69*(2), 181-199.

Cooper, H., Jackson, K., Nye, B., & Lindsay, J. J. (2001). A model of homework's influence on the performance evaluations of elementary school students. *Journal of Experimental Education, 69*(2), 181-199.

Cullen, F. T., Cullen, J. B., Hayhow, V. L., & Plouffe, J. T. (1975). The effects of the use of grades as an incentive. *The Journal of Educational Research, 68*(7), 277-279.

Ee, J., Moore, P. J., & Atputhasamy, L. (2003). High-achieving students: The

    motivational goals, self-regulation and achievement and relationships to their

    teachers' goals and strategy-based instruction. *High Ability Studies, 14*(1), 23-36.

Epstein, J. L. & Voorhis, F. L. V. (2001). More than minutes: Teachers' roles in

    designing homework. *Educational Psychologist, 36*(3), 181-193.

Fink, S. & Naven, F. B. (1972). Increasing homework motivation. *Education, 92*(1), 31-

    33.

Ginsburg, G. S. & Bronstein, P. (1993). Family factors related to children's

    intrinsic/extrinsic motivational orientation and academic performance. *Child*

    Development, 64, 1461-1474.

Hartensteiner, P. A. & Marek-Schroer, M. F. (1992). Two sixth grade homework policies

    and their effect on the prompt return of completed homework assignments.

    Journal of Instructional Psychology, 19(4), 246-252.

Hill, S., Spencer, S., Alston, R., & Fitzgerald, J. (1986). Homework policies in schools.

    Education, 107(1), 58-70.

Holland, V. (1998). Underachieving boys: Problems and solutions. *Support for Learning,*

    13(4), 174-178.

Hong, E. & Lee, K. (2000). Preferred homework style and homework environment in

    high- versus low-achieving Chinese students. *Educational Psychology, 20*(2),

    125-137.

Hughes, C. A., Ruhl, K. L., Schumaker, J. B., & Deshler, D. D. (2002). Effects of

 instruction in an assignment completion strategy on the homework performance

 of students with learning disabilities in general education classes. *Learning*

 Disabilities Research & Practice, 17, 1-18.

Jongsma, K. S. (1991). Rethinking grading practices. *The Reading Teacher, 45*(4), 318-

 320.

Killoran, I. (2003). Why is your homework not done? How theories of development

 affect your approach in the classroom. *Journal of Instructional Psychology, 30*(4),

 309-315.

Lan, W. Y. (1996). The effects of self-monitoring on students' course performance, use

 of learning strategies, attitude, self-judgment ability, and knowledge

 representation. *Journal of Experimental Education, 64*(2), 101-114.

Lau, K. & Chan, D. (2001). Motivational characteristics of under-achievers in Hong

 Kong. *Educational Psychology, 21*(4), 417-425.

Lieberman, L. M. (1983). The homework solution. *Journal of Learning Disabilities,*

 16(7), 435.

Linnenbrink, E. A. & Pintrich, P. R. (2002). Motivation as an enabler for academic

 success. *School Psychology Review, 31*(3), 313-327.

Madden, L. E. (1997). Motivating students to learn better through own goal-setting.

 Education, 117(3), 368, 411-413.

McMillan, J. H., Myran, S., & Workman, D. (2002). Elementary teachers' classroom

   assessment and grading practices. *The Journal of Educational Research, 95*(4),

   203-213.

Murphy, J. & Decker, K. (1989). Teachers' use of homework in high schools. *Journal of*

   Education Research, 82(5), 261-269.

Polloway, E. A., Epstein, M. H., Bursuck, W. D., Jayanthi, M., & Cumblad, C. (1994).

   Homework practices of general education teachers. *Journal of Learning*

   Disabilities. 27(8), 500-509.

Salend, S. J. & Schliff, J. (1989). An examination of the homework practices of teachers

   of students with learning disabilities. *Journal of Learning Disabilities, 22*(10),

   621-623.

Schunk, D. H. (1991). Self-efficacy and academic motivation. *Educational Psychologist,*

   26(3–4), 207-231.

Trammel, D. L., Schloss, P. J., & Alper, S. (1994). Using self-recording, evaluation, and

   graphing to increase completion of homework assignments. *Journal of Learning*

   Disabilities, 27(2), 75-81.

Wolters, C. A. (1999). The relation between high school students' motivational

   regulation and their use of learning strategies, effort, and classroom performance.

   Learning & Individual Differences, 11(3), 281-295.

APPENDIX A

Graphing Project

ID Number_____

GRAPHING PROJECT

Number of homework assignments turned in on time	Week 1	Week2	Week 3	Week 4

Color in the number of squares that match the number of times you turned in homework on time each week.

GRAPHING PROJECT

Breakfast Meals				
	Week 1	Week2	Week 3	Week 4

Color in the number of squares that match the number of times you ate breakfast each week.

APPENDIX B

Tracking Sheet

Breakfast Tracking Sheet

Check off daily to indicate whether you ate breakfast.

	Week 1		Week 2
	Mon._____		Mon._____
	Tue._____		Tue._____
	Wed._____		Wed._____
	Thurs._____		Thurs._____
	Fri._____		Fri._____
	Week 3		Week 4
	Mon._____		Mon._____
	Tue._____		Tue._____
	Wed._____		Wed._____
	Thurs._____		Thurs._____
	Fri._____		Fri._____
	Week 5		Week 6
	Mon._____		Mon._____
	Tue._____		Tue._____
	Wed._____		Wed._____
	Thurs._____		Thurs._____
	Fri._____		Fri._____

Homework Tracking Sheet

Check off daily to indicate whether homework was turned in on time.

ID Number_____

Week 1	Week 2
Mon._____	Mon._____
Tue._____	Tue._____
Wed._____	Wed._____
Thurs._____	Thurs._____
Fri._____	Fri._____

Week 3	Week 4
Mon._____	Mon._____
Tue._____	Tue._____
Wed._____	Wed._____
Thurs._____	Thurs._____
Fri._____	Fri._____

Week 5	Week 6
Mon._____	Mon._____
Tue._____	Tue._____
Wed._____	Wed._____
Thurs._____	Thurs._____
Fri._____	Fri._____

APPENDIX C

Teacher Checklist

Teacher Checklist

NAME	Identification Number	WEEK 1	WEEK 6

Instructions:

1. In the first column, under Name, please record the full name of each student enrolled in the class.

2. In the second column, under Identification Number, please record the ID number as assigned by the primary investigator.

3. In the third column, under week 1, please record the number of times individual participants turn in their homework assignments on time. This column will be used for a period of one week during the first week of the study. Use the following notations to record the data:

    + = Turned in on time
    x = Not turned in on time
    o = No assignment

4. In the last column, under week 6, please record the number of times individual participants turn in their homework assignments on time. This column will be used for a period of one week during the final week of the study.

APPENDIX D

Letter from school administrator

BISD

Watauga Elementary School
5937 WhitleyRoad - Watauga, Texas 76148-3532
817-547-2700 Fax 817-581-5425.
www.birdville.k12.tx.us

February 18, 2005

Dear 5th Grade Parent / Guardian,

Ella Denise Davis, a Birdvilie ISD employee, is interested in conducting a study at Watauga Elementary for her thesis at Texas Woman's University. I have looked over the proposed study and have met with Ms. Davis about the details and feel that this study is appropriate for our students in 5th grade. This study will not create any additional homework for your child or take away from your child's learning. The Administrator of Student Services for the district has also given his approval.

If you consent to your child participating in this study, please sign the attached consent form and return in the stamped, self-addressed envelope provided.

Thank you,

Sharon Brodin
Principal

APPENDIX E

Informed Consent Form

TEXAS WOMAN'S UNIVERSITY

CONSENT TO PARTICIPATE IN RESEARCH

Title: The Effects of Self-Monitoring Techniques on Homework Timeliness

Investigator: Ella Denise Davis..817-535-3631
Advisor: Kathy Deornellas, PhD, LSSP...940-898-2315

Explanation and Purpose of the Research

Your child is being asked to participate in a research study for Mrs. Davis' thesis at Texas Woman's University. The purpose of this research is to determine the impact of self-monitoring on homework timeliness. In particular, the study examines the rate at which students turn in their homework. For the purpose of this study, the term "timeliness" will be used to refer to the individual participant's ability to turn in their homework assignments at the time required by the teacher.

Research Procedures

For this study, the investigator will ask students to monitor and graph the results of their individual rates of homework timeliness/breakfast eating. The purpose of the graph will be so that students will receive immediate feedback on their performance and make necessary changes in their rate of timely homework return or the number of times they eat breakfast. The expected maximum total time commitment in the study is estimated to be approximately 5 minutes per day, 5 days per week, for approximately 4 weeks. During this time, teachers will be asked to take part in the study by monitoring the rate of student homework timeliness during the pre-test as well as during the post-test. The total time commitment expected for students and teacher is estimated to be approximately 6 weeks.

At the beginning of the study, participants will be told that they are helping the investigator determine if teaching students about graphing is useful for mathematics teachers. This procedure is necessary in order to prevent demand characteristics where participants discover the purpose of the study thereby influencing how they perform.

Parent/Guardian Initials

At the conclusion of the study, the primary investigator will meet with all participants to explan the purpose of the study. Participants will be provided information about the true purpose of the study. At such time, participants may ask questions directly related to the study.

Potential Risks

Potential risks to your child's participation in the study include embarrassment and loss of confidentiality. To avoid embarrassment, all students will be taking part in some activity. Because of random assignment, students will not have knowledge of which tasks others are asked to perform. To prevent loss of confidentiality, each individual student will receive a colored folder containing a tracking sheet and graph sheet. Each folder will have an assigned identification number rather than your child's real name. Those numbers will be unknown to other students. The investigator and the teacher will be the only ones with identifying information. Students will be asked to remember their ID numbers. They may be asked to record their numbers in a safe place. To avoid loss of confidentiality, all folders will be secured in a locked cabinet inside the teacher's classroom. The teacher and primary investigator will be the only ones with access to the cabinet. In addition, the master code list will be kept in a separate locked file.

At the completion of the study, all data will be removed from the classroom and stored at the home office of the primary investigator. Data will be removed by June 1, 2005. All computerized data will be destroyed by erasing if from the primary investigators home computer by using a commercial software program which overwrites selected files with random bits, ensuring that all file data is completely irrecoverable. All identifiable data will be destroyed within 5 years.

Another potential risk to your child's participation in the study is coercion. Participating teachers will be briefed on the effects of power differentials upon children who are respondents in reseach programs. This sensitivity training will be offered to reduce the risk of coercion of participants. Teachers will be instructed to allow students to withdraw from the study at any time. Students will be told that participation in the study is voluntary and they are free to withdraw from the study at any time.

Parent/Guardian Initials

Confidentiality will be protected to the extent that is allowed by law. Data collected during the research will be interpreted then stored for approximately 5 years. It is anticipated that the results of this study will be published in the investigator's thesis as well as in other research publications. However, no names or other identifying information will be in included in any publication.

The researchers will try to prevent any problem that could happen because of this research. You should let the researchers know at once if there is a problem and they will help you. However, TWU does not provide medical service or financial assistance for injuries that might happen because you are taking part in this research.

<u>Participation and Benefits</u>

Your involvement in this research study is completely voluntary, and you may discontinue your participation in the study at any time without penalty. The only direct benefit of this study to you is that at the completion of the study a summary of the results will be mailed to you upon request.*

<u>Questions Regarding the Study</u>

If you have any questions about the research study you may ask the researchers; their phone numbers are at the top of this form. If you have questions about your rights as a participant in this research or the way this study has been conducted, you may contact the Texas Woman's University Office of Research and Sponsored Programs at 940-898-3378 or via e-mail at <u>IRB@twu.edu</u>. You will be given a copy of this signed and dated consent form to keep.

Signature of Participant	Date
Signature of Parent/Guardian	Date

*If you would like to receive a summary of the results of this study, please provide an address to which this summary should be sent:

_____

_____

_____