THE EFFICACY OF A SCHOOL-HOME NOTE INTERVENTION USING INTERNET COMMUNICATION FOR DECREASING INAPPROPRIATE CLASSROOM BEHAVIORS OF SECONDARY LEVEL STUDENTS

By

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Although there has been a considerable amount of research during the last three decades demonstrating the effectiveness of the school-home note intervention with elementary school-aged students, only one published study examined its' effectiveness with high school-aged students. No research was noted that employed the use of the Internet as a means of communicating the note between school and home. The present study examined the efficacy of the school-home note intervention, incorporating positive and negative consequences and communicated daily via the Internet, at changing participant's inappropriate classroom behaviors in the secondary level. The study also examined the treatment acceptability of the school-home note intervention by each participant's parent.

Observational data of three males attending regular education in 11-12 grades were collected for 18 days. Similar to results of other studies that reported the

effectiveness of the school-home note in reducing disruptive and disengaged behaviors of students in the elementary setting, the present study also demonstrated notable decreases in each of the target behaviors. Two important findings were observed. First, immediately following the parent conference prior to parental receipt of the first school-home note, a notable decrease in each of the target behaviors occurred. Secondly, participants 1, 2, and 3 exhibited a decrease in the mean of the daily percentage of intervals across phases in off-task behaviors (22%, 51%, and 62%), fidgeting behaviors (47%, 39%, 38%), and inappropriate verbalizations (9%, 32%, and 39%), respectively. Target behaviors remained low, with only moderate to low variability, during the intervention phase. The daily achievement of the performance criterion by each participant did not necessitate the delivery of negative consequences.

One parent of each participant completed a questionnaire that measured treatment acceptability. High scores were obtained from the parent of participants 1, 2, and 3 of 86, 88, and 90, respectively, on a 90-point scale. Responses indicated that parents perceived the intervention was effective in changing target behaviors, were willing to continue the intervention procedures, and to recommend the procedure to other teachers and parents. A further indication of the acceptability of the Internet-delivered school-home note was the expressed willingness to use the technique for other problem behaviors.

DEDICATION

To my mother, Faye Hutchinson Gable, and the loving memory of my father, William Ervin Gable, for their unconditional love, support, and for giving me the foundation on which to achieve my dreams. Words are inadequate to express my deep appreciation and admiration and I will always be very grateful to them.

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INTRODUCTION AND LITERATURE REVIEW

Introduction

Communication and collaboration between home and school is essential to students' educational success. This requires mutual planning, routine communication, and monitoring of students' educational achievement among teachers, parents, and students (Bos, Nahmias, & Urban, 1999; Elman, 2000; Helling, 1996; Jonson, 1999). The school-home note is one way to achieve this.

A school-home note is an intervention for improving students' classroom performance. It typically requires teachers to conduct daily evaluations of student behavior(s) and parents to administer positive and/or negative consequences based on the evaluations (Kelley, 1990). Significant variability may exist in the characteristics of the target student (e.g., age, ethnicity, educational program), target behaviors (e.g., social or academic), the degree of specificity of the note (e.g., specific or general information), and the comprehensiveness of the intervention (e.g., length and number of observations, number of variables assessed, and available consequences). At the end of the specified time period, the teacher sends the report home to the parent, who administers appropriate consequences based on predefined contingencies. Positive consequences usually include tangibles (e.g., toys, stickers, food, and allowance) and intangibles (e.g., verbal praise,

extra time to watch television, night out with friends, and extended curfew). Negative consequences usually include loss of privileges (e.g., not allowed to play with toys or watch television, temporary removal of phone or driving privileges, or access to friends after school). Overall, the school-home note is a commonly used intervention and research has shown it to be effective in reducing behavioral problems and increasing academic productivity (Cottone, 1998; Cowart, 1999; Kelley & McCain, 1995; Kraemer, 1994; LeBlanc, 1998; McCain & Kelley, 1993, 1994).

The school-home note intervention offers many benefits. These benefits extend beyond the main purpose of increasing students' educational performance. It also provides opportunity to engage teachers and parents in ongoing, direct communication and collaboration in planning and monitoring students' educational performance. It is also does not require teachers to significantly change their instructional style or classroom management, thus making it more appealing to teachers (Cowart, 1999). The emphasis placed on positive behaviors of students increases treatment acceptability by both teachers and parents. Finally, an important benefit is the opportunity for parents to provide a wider variety of consequences not available to teachers, thus affording greater likelihood of improving student behaviors (Kelley, 1990).

Statement of the Problem

Prior research primarily focused on the efficacy of the school-home note intervention in the elementary and middle school levels. Only one study in the research

literature employed the use of the school-home note with high school students (Trice, Parker, Furrow, & Iwata, 1983). No study had been conducted communicating the school-home note through the Internet.

Purpose

The purpose of this study was to examine the effectiveness of the school-home note intervention on reducing inappropriate classroom behaviors of high school level students and parental acceptability of the note. The intervention consisted of: (a) two separate conferences with participants and their parents in which the study was explained, consent and assent were obtained, and positive and negative consequences were collaboratively identified, and (b) a school-home note that incorporated positive and negative consequences and communicated daily by the researcher to each participant's parent via e-mail.

Rationale for the Present Study

Although there was a considerable amount of research that demonstrated the effectiveness of the school-home note for elementary and middle school-aged students, there was significantly less with students in the high school level. Only one published study selected high school students as participants (Trice et al., 1983). Furthermore, no research was noted that employed the use of the Internet as a means of communicating the school-home note. Therefore, the present study examined the following research questions.

1. Was the school-home note intervention effective in reducing participant's inappropriate classroom behaviors at the secondary education level?
2. Was the school-home note intervention that targeted inappropriate classroom behaviors acceptable to each participant's parent, at the secondary education level?

Independent and Dependent Variables

The independent variable consisted of two components: (a) two separate conferences with participants and their parents in which the study was explained, consent and assent were obtained, and positive and negative consequences were collaboratively identified, and (b) a school-home note that incorporated positive and negative consequences and communicated daily by the researcher to each participant's parent via e-mail. The dependent variable, used to evaluate the effectiveness of the school-home note intervention, was the mean of the daily percentage of intervals of each target behavior observed by the researcher during behavioral observations of each participant during both baseline and intervention phases. Parental treatment acceptability was also measured.

Definition of Terms

General Terms

1. Change in Behavior: a change in the percentage of intervals during which target behaviors were observed by the researcher, and a change in the trend, level, and rapidity between two or more data points.

2. Partial Interval Recording: a means of measuring a sample of predefined behaviors by recording if they occurred (or did not occur) within specified intervals of time.

3. Performance Criterion: mean percentage of intervals during which target behaviors were observed during the baseline phase. The percentage of intervals in which target behaviors were observed daily during the baseline phase was averaged, and served as the criterion for reinforcement during the intervention phase. The performance criterion was calculated separately for each participant.

4. School-home Note Intervention: was defined as: (a) two separate conferences with participants and their parents in which the study was explained, consent and assent were obtained, and positive and negative consequences were collaboratively identified, and (b) a school-home note that incorporated positive and negative consequences and communicated daily by the researcher to each participant's parent via e-mail.

5. Stable Trend: a relatively flat, vertical, or horizontal trend or a trend in the desired direction predicted for the intervention.

Target Behaviors

1. Fidgeting: a target behavior that consisted of (a) tapping with an object or hand/foot, (b) pen or object in mouth, (c) manipulating an object not necessary for the assignment at the moment, (d) chewing gum and eating candy, or (e) touching another student unless instructed by the teacher.

2. Off-Task: a target behavior that consisted of (a) eyes not oriented at the teacher or other presenters when he or she is talking, (b) eyes closed, unless instructed by the teacher, (c) head, foot, or leg on desk, (d) out of desk, or (e) eyes not oriented on the assignment given by teacher.

3. Inappropriate Verbalizations: a target behavior that consisted of (a) calling out without raising hand and being recognized by the teacher first, (b) talking with peer, unless instructed by the teacher, (c) talking to one's self, or (d) making noises such as whistling, singing, popping sounds with mouth, or unintelligible vocalizations.

Consequences

1. Negative Consequence: the loss of a predetermined privilege or requirement to perform an unpleasant activity (e.g., household chore, not allowed to watch television, drive car, or visit friends) identified by each participant and his parent.

2. Positive Consequence: the delivery of a predetermined tangible (e.g., money, food, less chores) or intangible (e.g., attention, praise) identified by each participant and his parent.

Review of the Literature

Research has examined the effectiveness of the school-home note intervention on student's academic behaviors, social behaviors, and/or a combination of thereof (Cottone, 1998; Cowart, 1999; Kraemer, 1994; LeBlanc, 1998; McCain & Kelley, 1993, 1994). The school-home note intervention, combined with a home-based contingency management

plan, has been demonstrated in research to increase students' academic productivity and reduce inappropriate social behaviors in school.

Classroom Behaviors

LeBlanc (1998) examined the differential treatment effects of a school-home note used with two different home-based reinforcement packages on disruptive and disengaged classroom behavior of four regular education, kindergarten students. One package included a Mystery Motivator procedure in which students were reinforced intermittently at home contingent upon achievement of a predefined behavioral criteria. The other package included a Reward Menu procedure in which students were allowed to select a reward from a parent and teacher approved list upon achievement of a predefined behavioral criteria. Results indicated both packages, Mystery Motivator and Reward Menu, were effective in increasing appropriate behavior for each of the four students from baseline through the intervention phases. Findings were mixed in regard to differential treatment outcomes of both packages. One student benefited more from the Mystery Motivator package, whereas another student benefited more from the Reward Menu package. The effects of both packages appeared to be equivalent for the remaining two students.

Cowart (1999) employed a school-home note intervention combined with praise and a response cost procedure to determine the differential effects of targeting academic (i.e., prepared with necessary materials, completed assigned class work in time allotted, and accuracy of assignments) and social (i.e., kept hands/feet/objects to self, remained in

seat, and followed teacher teachers) behaviors in three regular education elementary students. The first intervention targeted appropriate social behaviors and the second intervention targeted appropriate academic behaviors. A fourth student was included to determine whether results of the academic intervention were dependent upon the preceding social intervention. Only the academic intervention was applied with this student. A multiple baseline treatment procedure was employed to compare changes in behaviors across both intervention phases. Data were gathered during baseline to obtain the mean percentage of all points for both social and academic behaviors. This served as the minimum performance criterion for reinforcement during both intervention phases. During treatment, students were given either praise when the predetermined performance criterion was met, or corrective feedback and a response cost procedure (i.e., restriction of two preferred activities) when it was not met. Results indicated the first intervention targeting social behaviors with praise and a response cost was more effective in increasing appropriate classroom behaviors of the students. Results of the fourth student indicated a significant increase in both social and academic behaviors.

Cottone (1998) using one elementary student enrolled in regular education and two middle school-aged children diagnosed with Attention Deficit Hyperactivity Disorder (ADHD) and enrolled in special education, also evaluated the effectiveness of the school-home note intervention. Employing a multiple baseline, the school-home note intervention was combined with treatment that was systematically varied with home-based rewards randomly delivered on certain days and school-based rewards delivered on remaining days. Target behaviors were examined of both the students (i.e., attention to

task, disruptive behavior, and academic productivity) and teachers (i.e., praise statements, reprimands, and neutral statements). Results indicated the school-home note intervention produced notable gains in attention to task and academic productivity (i.e., work completion and work quality) in only one of the three students. Two of the three students' behaviors did not change significantly on either of the variables assessed. The researcher explained that this was largely due to the high percentages of on-task behaviors during baseline, inconsistent distribution of rewards by parents, problems with treatment integrity, a delayed reinforcement system, and a limited target period that represented only a small portion of the school day.

Kraemer (1994) also examined the effectiveness of the school-home note intervention for increasing academic (i.e., work completion) and social (i.e., on-task and goal behaviors: raised hand to talk, stayed in seat, kept hands to self, respectful to others, worked quietly, talked on topic, and contributed to class) behaviors of six lower elementary students diagnosed with ADHD. Five of the students were enrolled in regular education. The researcher employed a multiple baseline combined with a changing criterion component for all students, and a withdrawal phase for one student to further validate that outcome variables were due to the school-home note intervention. Three students demonstrated an increase in work completion, five students demonstrated an increase in on-task behavior, and four students demonstrated an increase in goal attainment. Goal attainment was calculated as an aggregate of daily percentages of obtained goal behaviors. Overall, half of the students demonstrated an increase in all three target behaviors and the remaining half increased behaviors in at least one of the

outcome variables. All teachers, except one, rated the school-home note intervention as highly acceptable. Results further supported the school-home note as an effective intervention in improving classroom behaviors frequently exhibited by children diagnosed with ADHD.

These results were supported by the research McCain and Kelley (1993) conducted to measure the effectiveness of the school-home note on classroom behaviors of a five year-old boy diagnosed with ADHD and enrolled in regular education. Using an ABAB design, three behaviors were targeted for intervention: on task, disruptive, and activity change. During the baseline phase, both the teacher and parent responded to the student's behavior as usual (i.e., repeated teacher prompts, student removal from activities, and a daily behavior chart sent to the student's parent). The teacher reported the behavior chart yielded no improvement in the student's classroom behavior.

Following each baseline, the teacher also evaluated the student in each of the target behaviors and provided the student and parent feedback by circling a "happy, so-so, or sad face" (McCain & Kelley, 1993, p. 39) on the school-home note. The student was allowed to color in a smiley face each time he met the criterion for remaining engaged in an activity for a specified amount of time. The teacher increased the criterion when the student achieved the previous one. Reinforcement (i.e., special snack or special time with the parent) was also provided at home by the parent based on the types of faces circled and the number of faces colored on the school-home note. Similarly, the criterion for reinforcement was increased at home when the student achieved the previous criterion.

Results obtained by McCain and Kelley (1993) indicated the home-school note intervention (combined with a home-based contingency procedure) was effective in improving the classroom behaviors of a preschooler diagnosed with ADHD. The student demonstrated increased attentiveness, and decreased activity changes and disruptiveness.

Trice et al. (1983) assessed the effectiveness and social validity of various means of communicating student performance to parents. They evaluated the quality of four levels of feedback to parents of four 16 year-old males enrolled in special education in the tenth grade, with a history of serious disruptive behaviors and performing two to four years below grade level in reading and math. The first level was a "Good Day Card" (Trice et al., 1983, p. 393) which was sent home only on days student's performance was satisfactory and consisted of only one sentence. "Your son had a good day today." The second level was a five-item checklist on which the student's primary teachers summarized the total number of positive and negative ratings as "satisfactory" or "unsatisfactory." The third level was a personal letter handwritten by the program teacher summarizing the student's performance in the teacher's own words. The fourth level was a telephone call that contained the same types of information provided in the personal letter.

Results indicated all four forms of communication were effective at increasing attendance, homework completion, class work participation, and on-task behavior, and decreasing disruption and non-compliance. The simplest and least costly form of feedback, the Good Day Card was as effective as the more complex forms and was preferred by three of the four parents.

Consequences

Although the school-home note is an effective and practical intervention for improving student's classroom behaviors, it has traditionally been utilized to include only positive consequences. In spite of the effectiveness of negative consequences to managing student's behaviors, very few studies have incorporated this procedure in the school-home note intervention.

McCain and Kelley (1994) examined the effectiveness of the home-school note with and without a response cost on the classroom behaviors of three fourth grade males enrolled in regular education, who exhibited frequent inattentiveness and disruptiveness, and who produced unsatisfactory class work. The researchers used a multiple baseline design across students with randomized alternating treatments. Dependent measures were the percentages of on-task and disruptive behaviors. During the first treatment, the teacher rated each student's classroom behavior (i.e., satisfactory class work and used class time well) on the home-school note. No consequences were delivered. During the alternate treatment, the teacher used the same rating system employed in the first treatment and added a response cost delivered by the teacher. Each time a target student was off-task or disruptive, the teacher instructed the student to cross off a smiley face that was printed on the school-home note and calmly administered a verbal reprimand.

Parents reviewed the notes daily with their child and delivered rewards (i.e., television, Nintendo) according to a contingency contract mutually predefined by the parent, teacher, and student. Results indicated the home-school note with a response cost procedure increased on-task behaviors and decreased disruptive behaviors. The

intervention without the response cost procedure yielded less improvement in target behaviors (McCain and Kelley, 1994).

Kelley and McCain (1995) conducted a similar study with two male and two female elementary students in regular education, who were referred for psychological services due to inattentiveness, disruptiveness, and lack of academic productivity. Research design and intervention procedures were identical as those conducted by the same researchers in 1994. Similar findings were reported. Appropriate classroom behavior and academic productivity increased with both interventions, but the inclusion of the response cost procedure by the teacher yielded greater gains.

Rosen, Gabardi, Miller, and Miller (1990) compared the differential effects of the school-home note using only positive consequences with a combination of positive and negative consequences. One female and nine male junior high school students enrolled in regular education were selected to participate in the study. They were selected based on excessive disciplinary referrals and school suspensions. Half the students were randomly assigned to positive consequences only treatment (POS) and half to the combination of positive and negative consequences treatment (POS/NEG). Positive consequences (i.e., extended bedtime or money) were administered if the student received a "yes" mark from each of his or her teachers. Negative consequences (i.e., withdrawal of privileges or extra chores) were administered if a "no" was received from a teacher or the student did not bring the note home. Dependent measures were the number of discipline referrals and scores on the Childhood Depression Inventory (CDI) and the Coopersmith Self-Esteem Inventory (SEI). Results indicated students who received the POS/NEG treatment had a

significant decrease in the number of discipline referrals and lower scores on the CDI from pre- to post-treatment compared to students who received the POS treatment. No significant changes in scores on the SEI were noted for students in either treatment group.

Studies reported in the research literature demonstrated that the school-home note combined with a home-based contingency that incorporated both positive and negative consequences were effective in decreasing inappropriate classroom behaviors. Results may be explained by the process of a reductive procedure known as differential reinforcement of low rates of behavior (DRL).

Differential Reinforcement of Low Rates of Behavior

The delivery of a reinforcer(s) only upon low rates of behavior is known as differential reinforcement of low rates of behavior and has been shown to reduce behavior rapidly (Deitz, 1977; Deitz & Repp, 1973). Deitz (1977) identified three models of DRL: spaced responding DRL, full interval DRL, and interval DRL.

In spaced responding, a target behavior is reinforced upon the absence of the behavior for a specified amount of time (known as inter-response time or IRT). This was demonstrated by Deitz (1977) in which a reduction of inappropriate questioning by 7 and 8 year-old females and a 9 year-old male diagnosed with behavioral disorders was obtained. The initial IRT criterion ranged from 3 to 6-minutes and was increased to 9 to 20- minutes. Students who did not ask an inappropriate question during his or her specified criterion were reinforced by the teacher providing praise and answering the

question. The teacher did not answer the question when an inappropriate question was asked during the specified time.

In full interval DRL, reinforcement is delivered at the end of an entire observation period if a predetermined criterion was achieved. The effectiveness of this procedure was demonstrated by Hobbs and Holt (1977) in which out-of-seat and talking-out behaviors were reduced in 17 elementary students enrolled in special education. Students who exhibited 5 or fewer target behaviors within a 90-minute observation period were allowed to select from a list of reinforcers that included candy, free time, movies, and access to play materials. Using a BAB design, students averaged .25 and .39 responses when treatment was applied, compared to .88 responses when treatment was withdrawn. Full interval DRL was also effective in reducing talk-outs by a 15 year-old educable mentally retarded male (Deitz, 1977), an 11 year-old trainable mentally retarded male (Deitz & Repp, 1973), and an entire class of 10 trainable mentally retarded students (Deitz & Repp, 1973). Teasing and name calling behaviors were also reduced in three junior-high school students employing this procedure (Zwald & Gresham, 1982), out -of-seat behavior in a 12 year-old educable mentally retarded male, and an entire class of 14 educable mentally retarded students (Deitz, Repp, & Deitz, 1976).

In interval DRL, an observation period is divided into smaller intervals and reinforcement is delivered at the end of each interval if the number of responses is below or equal to a specified criterion. Deitz (1977) reduced talk-outs of a 6 year-old female by delivering reinforcement (i.e., candy) each time one or no talk-outs occurred during a 5-minute interval. Using an ABAB design, the number of talk-outs reduced from 9.8 and

10.0 responses when treatment was not applied to 2.3 and 1.5 when treatment was applied. In other studies, using interval DRL, inappropriate classroom behaviors (i.e., shoving, hitting, running in the room, standing on furniture, etc.) were also reduced in a 7-year-old learning-disabled male and talk-out behaviors of a class of 14 special education kindergarten students (Deitz et al., 1978).

Spaced responding is most useful for behaviors that are desirable only when they do not occur at a high rate. For example, it is appropriate for a student to participate in class discussions, but it is not desirable when the student dominates the class discussion. Speaking is also a desirable behavior, but speaking too fast is not. Full-interval DRL is most useful for behaviors that need to be reduced, but are acceptable if some of the behaviors occur close together. Such behaviors include wasted time between activities, excessive thoughts of failure, noise level, or talking. Interval DRL is most useful for minor behaviors that require more frequent, direct feedback in order to reduce the behaviors. For example, it is useful in reducing class disruptions by providing direct feedback after frequent intervals of time. All three types of DRL have been shown to be effective in reducing rates of behavior and can occur rapidly. Each type can be combined with other behavior reduction procedures in order to improve their effectiveness. For example, if the inter-response time is not met using spaced responding DRL, time out could be implemented before the next inter-response time began. Overcorrection could be implemented if the DRL limit was exceeded, before another full interval began. Punishment could be combined with interval DRL by delivering the punishment upon the occurrence of the second behavior before beginning a new interval. All three types of

DRL provide the advantage of using reinforcement rather than aversive methods to reduce behavior. They are not suitable for behaviors that need to be completely eliminated such as self-injurious or aggressive behaviors. When compared to full-interval DRL, spaced responding DRL and interval DRL are more cumbersome to implement (Bellack, 1989; Repp & Singh, 1990; Witt, Elliott & Gresham, 1988).

Internal and External Validity

Extraneous variables may threaten the internal (ability to draw causal inferences from the data) and external validity (ability to generalize results to other populations, settings, and conditions) of a study (Cook & Campbell, 1979). Threats to internal validity include: (a) the occurrence of an event other than the treatment that may cause changes in the subject's behavior (history effects); (b) changes in subjects (maturation); (c) instruments used in the study (instrumentation) as a result of time; (d) the effect of taking a test on subsequent testing (testing); (e) subject selection based on extreme scores obtained during pretest selection (statistical regression); (f) differences between kinds of subjects in one experimental group as opposed to another (selection); and the (g) interaction of internal threats with the selection of subjects (interactions with selections). Threats to external validity include: (a) a change in the subjects sensitivity to the independent variable (reactive testing), and (b) the generalization of results in very similar settings (interactions of setting and treatment) (Campbell & Stanley, 1966).

It is important to control for internal and external threats to validity in order draw correct inferences from the data and allow for replication of treatment. Recommendations

for doing so include: (a) establishing clear definitions of the independent and dependent variables, (b) providing a definition of accuracy when measuring the components of the independent variable, (c) selecting participants randomly, (d) conducting direct observations of the implementation of the treatment components, (e) supplementing self-reports with direct observations, and (f) providing training as needed to persons implementing the treatment (Gresham, 1996).

Treatment Integrity and Acceptability

Treatment integrity is the degree to which treatment is implemented as intended (Gresham, Gansle, Noell, Cohen, & Rosenblum, 1993). In order to minimize threats to internal validity and draw definitive conclusions of the effect of the independent variable upon the dependent variable, the researcher must assess and maintain treatment integrity. If treatment integrity is not assessed, then treatment outcomes may be explained by several other variables. Positive outcomes may be due to the effectiveness of the treatment or other extraneous variables. If outcomes are negative, they may be due to an inappropriate treatment or poor treatment integrity (Hobbs, Walle, & Hammersly, 1990; Moncher & Prinz, 1991).

Treatment acceptability is defined as "judgments by laypersons, clients, and others of whether treatment procedures are appropriate, fair, and reasonable for the problem or client" (Kazdin, 1981, p. 493). Two models of treatment acceptability, emphasizing different elements, are reported in the literature. The first model proposed by Witt and Elliott (1985) suggested a sequential and reciprocal relationship among four

variables: treatment acceptability, use, integrity, and effectiveness. They purported treatments that are perceived as acceptable are more likely to be used, and implemented with a high degree of integrity. A high degree of treatment integrity may increase the likelihood of treatment effectiveness.

Reimers, Wacker, and Koeppl (1987) proposed the second model emphasizing the importance of understanding treatment prior to treatment acceptability. If there is a good understanding of the treatment, then acceptability can be assessed. Low treatment acceptability may result in low compliance and thus low treatment effectiveness. High treatment acceptability may result in high compliance, but there may or may not be treatment effectiveness. High treatment effectiveness, with little disruption, may produce greater likelihood of high treatment maintenance. On the other hand, high treatment effectiveness, with much disruption, may produce variable treatment maintenance that may require treatment modification.

Although the link between each of these variables offers logical appeal, studies have indicated mixed findings. Sterling, Watson, Wildmon, Watkins, and Little (2001) found treatment acceptability ratings did not correlate with treatment integrity, but rather the amount of training each participant received in regard to implementing the treatment was the most important variable. In a study conducted by Galloway and Sheridan (1994), correct implementation of the school-home note intervention by teachers and parents (treatment integrity) was associated with larger treatment gains (increased math performance of students). However, treatment integrity was measured through self-report. Results may have been different if treatment integrity was measured through direct

observation. This was the case in a study conducted by Wickstrom, Jones, LaFleur, and Witt (1998) in which self-report of treatment integrity by subjects was found to be higher than observed actual implementation of treatment. Treatment integrity based on teacher self-report was 54%, whereas direct observation of actual treatment implementation was 4%. In a study by Noell, Witt, Gilbertson, Ranier, and Freeland (1997) two out of three student's academic performance improved even though treatment integrity was low. The authors explained some of the steps used to measure treatment integrity might not have been functionally related to treatment gains.

Summary

In conclusion, studies have shown the school-home note to be an effective intervention with students in the elementary level enrolled in regular and special education. It was effective in improving behaviors that include work completion, work quality, on-task, class preparedness, class disruptiveness, and following teacher directions. A combination of both positive and negative consequences was more effective than delivery of positive consequences only. The one study conducted in the secondary level indicated the simplest and least costly form of communication was as effective as the more complex forms of communication between school and home.

In order to draw valid inferences and allow for replication of studies, internal and external validity are important considerations. If threats are controlled, one is able to make more definitive conclusions of the effect of the independent variable upon the dependent variable. Also the integrity of the treatment must be maintained in order to rule

out extraneous variables that may impact results. The amount of training received by participants has been shown to be an important variable associated with treatment integrity. Findings are mixed in regard to whether treatment integrity is associated with treatment outcomes. Positive treatment outcomes may result even though there is low treatment integrity. Yet, studies with high treatment integrity have yielded high treatment outcomes. Self-report of treatment integrity has been shown to be higher than that found during direct observation of treatment integrity. Overall, theoretical models have been developed that discuss a relationship between treatment acceptability, integrity, use, and effectiveness. However, systematic and empirical studies are needed to demonstrate a functional relationship between the variables.

Since studies that examined the effectiveness of the school-home note intervention were conducted in the elementary education level and were communicated on paper and not via the Internet, the present study examined the effectiveness of the school home note intervention in the secondary education level. Parental treatment acceptability of the intervention was also assessed.

CHAPTER II

METHODOLOGY

Research Questions

The present study was designed to address the following research questions:

1. Was the school-home note intervention effective in reducing participant's inappropriate classroom behaviors at the secondary education level?
2. Was the school-home note intervention that targeted inappropriate classroom behaviors acceptable to each participant's parent, at the secondary education level?

It was anticipated that the intervention as described would be effective in reducing each of the target behaviors and that each participant's parent would find the intervention to be highly acceptable. Similar studies that examined the effectiveness of the school-home note intervention found it to be effective in the elementary education level and was acceptable by the participants and their teachers and parents (Cottone, 1998; Kelly & McCain, 1995; LeBlanc 1998; McCain & Kelley, 1993, 1994).

Participants and Setting

The participants in the present study were three Caucasian males in regular education attending grades 11-12 in a public high school located in north Texas. The student enrollment was 1875 with 125 faculty members. Two participants were age 17

and one was age 16. Participants were taught by the same history teacher, with two participants attending fourth period and one attending fifth period classes. Participants were identified by their teacher as displaying disruptive behaviors that were observable and measurable such as inappropriate verbalizations, fidgeting, and off-task during a 75-minute class period. Each participant lived with biological parents in households where both were employed outside the home. Families lived in a predominantly Caucasian middle-class neighborhood located within approximately five miles of the school.

Independent and Dependent Variables

The effectiveness of the school-home note intervention was evaluated employing a single-subject design using multiple baselines across three subjects. The independent variable was defined as: (a) two separate conferences with participants and their parents in which the study was explained, consent and assent were obtained, and positive and negative consequences were collaboratively identified, and (b) a school-home note that incorporated positive and negative consequences and communicated daily by the researcher to each participant's parent via e-mail. The dependent variable used to evaluate the effectiveness of the school-home note intervention was the mean of the daily percentage of intervals in which target behaviors were observed by the researcher during observations of each participant for both baseline and intervention phases.

Data Collection

The researcher and interobserver (certified school diagnostician professionally trained to conduct behavioral observations) recorded data on each participant's target behaviors observed during both baseline and intervention phases. Observers sat in the corner of the classroom, with full view of each target student and other students. Observers used a 10-second partial interval procedure, followed by a 5-second recording interval, cued by cassette tape, for a total of 20 minutes. This procedure generally underestimates exhibited behaviors as more than one behavior may occur during any given interval (Shapiro & Lentz, 1985). Both the researcher and interobserver wore headsets that allowed each to listen to identically recorded cassette tapes. During each 5-second recording interval, observers placed a tally mark in the appropriate box on the classroom observation form (see Appendix A) if the target behavior was observed during the preceding 10-second interval.

For each participant, a daily percentage of intervals of target behaviors observed during baseline and intervention phases was calculated by the researcher. The mean of the daily percentage of intervals of target behaviors observed during the baseline phase determined the performance criterion for reinforcement during the intervention phase. A separate performance criterion was established for each participant. During the intervention phase, the mean of the daily percentages of each target behavior observed was compared with the participant's performance criterion to determine if a positive or negative consequence should be delivered to each participant by his parent. The first

school-home note was e-mailed to each parent following the initial observation during the intervention phase for each participant.

Procedures

Consents and Referral

The researcher first obtained approval from the Institutional Research Board to conduct the study (see Appendix B). The researcher then met with the superintendent and the principal of the high school to explain the present study, and obtain written permission from both to conduct the study (see Appendix C).

Next, the researcher held individual conferences with the teacher, diagnostician, and each participant's parent to explain the purpose and benefits of the study, the role of each person, and obtain written consent (see Appendices C, D, and E, respectively) to participate in the study. Three students were identified that were referred by their history teacher. Target behaviors that were observable and measurable were identified (see Appendix F) by the teacher and researcher. An observational chart (see Appendix A) and the school-home note (see Appendix G) were explained that incorporated each of the target behaviors: off task, fidgeting, and inappropriate verbalizations. Participants were selected based on the following criteria: (a) teacher referrals of students exhibiting poor classroom behaviors (see Appendix F), (b) parental consent (see Appendix E), (c) student assent (see Appendix H) and (d) daily parental access to the Internet and ability to receive and send e-mail.

Baseline Phase

During baseline, the teacher responded to each participant's behaviors in a manner consistent with the way the teacher had been responding to each participant prior to the observational period in order to obtain a direct measure of the target behaviors prior to implementation of the intervention. Using the Classroom Observational Form (see Appendix A), both the researcher and interobserver obtained baseline data using the behavioral observation procedures described above. Participant 1 was determined based on baseline data that stabilized first, followed by Participant 2, and then Participant 3.

Preintervention Conference

Upon completion of gathering baseline data, the researcher met with each participant and one of his parents, to review their role during implementation of the school-home note and obtain student assent to participate in the study. Positive and negative consequences, identified collaboratively between each participant and his parent (see Appendix I), were selected for the purpose of reinforcing reduction of target behaviors. Each parent was instructed to deliver a positive or negative consequence upon receipt of the school-home note each day, based on whether the participant achieved or did not achieve the performance criterion determined during baseline, respectively. Specific instruction was also given to each parent to deliver the appropriate consequence on Friday (as opposed to the weekend) upon receipt of the school-home note emailed on each Friday. Variability existed among parents as to the exact time each afternoon the consequence was delivered to participants, depending upon after-school and after-work

commitments each day. Two participants were members of the softball team and participated in after-school practice several times each week. Work hours also varied each week among parents. During the meeting, the researcher also gave written instructions for implementing the school-home note to the parent (Appendix J) and thoroughly reviewed each step.

Intervention Phase

The intervention consisted of two components: (a) two separate conferences with participants and their parents in which the study was explained, consent and assent were obtained, and positive and negative consequences were collaboratively identified, and (b) a school-home note that incorporated positive and negative consequences and communicated daily by the researcher to each participant's parent via e-mail. At the request of the school principal to minimize time and efforts of the teacher due to the heavy work load at the end of the school year, the researcher e-mailed the school-home note each day to the parent rather than the teacher.

During the intervention phase, both the researcher and interobserver continued to gather data as during the baseline phase. Upon the initial observation, the researcher calculated the daily percentage of intervals of each target behavior observed, as well as the mean of the daily percentage of intervals of all target behaviors observed. This information was recorded on the school-home note (see Appendix G) and e-mailed to each participant's parent. Daily observation, followed by e-mailing the school-home note

to the participant's parent on the same day, continued during subsequent days of the intervention phase.

The researcher and parent predetermined a special code to represent the signature of each person. The researcher and parent signed the school-home note each day to help ensure the authenticity of the note. The researcher e-mailed the school-home note to each parent immediately after school each day. Each parent reviewed the school-home note daily with the participant and delivered a positive consequence if the performance criterion for reinforcement was achieved, or a negative consequence if it was not achieved. The researcher also reviewed the school-home note returned by each parent via e-mail each day, to note whether a positive or negative consequence was administered and any additional comments. The researcher called the parent if he or she did not return the school-home note to the researcher on the same day it was sent.

The intervention phase was staggered by collecting three additional baseline data points for each participant (Barlow & Hersen, 1984). Staggering resulted in numerous phase changes, which offered more credence to the view that behavior changes only when the intervention was implemented, and thus reduced the need to return to baseline as with an ABAB design. Ethically, the multiple baseline offered the advantage of participants continuing treatment if the intervention proved effective rather than withdrawing the intervention for the purpose of research (Kazdin, 1982). It was anticipated that the results of the present study would demonstrate that the school-home note intervention would be an effective intervention in decreasing participant's

inappropriate classroom behaviors in the secondary level. It was also anticipated that each parent would indicate high treatment acceptability as measured by a questionnaire.

Data Analysis

A single-subject research design incorporating a multiple baseline was used to demonstrate possible effects of the independent variable upon the dependent variables. The multiple baseline offered the advantage of demonstrating the effects of the intervention without reversing to baseline conditions. Data gathered by the researcher across both baseline and intervention phases were graphed and analyzed using two methods. The first method consisted of calculating: (a) the daily percentage of intervals of each target behavior observed, (b) the daily mean percentage of intervals of all target behaviors observed, (c) the mean of the daily percentages of intervals of each target behavior observed across both phases, and (c) the mean of the daily percentages of intervals of all target behaviors observed across both phases. The second method employed visual analysis of the change in the trend, level, and rapidity of data points to determine behavior changes. According to Barlow and Hersen (1984), visual analysis is the most common method of examining data that is graphically displayed. Stability criterion of data points was defined as a relatively flat trend or a trend in the direction opposite to the effect predicted for the intervention (Barlow & Hersen, 1984).

Once baseline stabilized, the intervention was applied to the first participant while the remaining two participants continued on baseline. When experimental control was demonstrated by the first participant, the intervention was introduced sequentially to the

second participant, and then to the third participant. Experimental control was evaluated visually according to the following specific criteria: (a) changes in the trend and (b) immediacy of the change upon introduction of the intervention, and (c) the sharpness of the trend.

Treatment Integrity and Acceptability

The Parent Integrity Checklist (see Appendix L), developed by the researcher, was used to assess if participant's parents correctly implemented the intervention. An instructional sheet (see Appendix J) was given to each parent and reviewed during a conference held immediately prior to implementation of the intervention phase. The following items were assessed to measure treatment integrity by the each parent: (a) placed a mark in the appropriate "yes" or "no" blank indicating the parent gave the participant a positive consequence if the participant met the performance criterion on the same day, (b) placed a mark in the appropriate "yes" or "no" blank indicating the parent gave the participant a negative consequence if the participant did not meet the performance criterion on the same day, (c) signed the school-home note by using the predetermined code, and (d) e-mailed the school-home note back to the researcher on the same day the parent received it. The researcher assessed each item daily by reviewing responses indicated on the school-home note returned from each parent each night. At any time in which the researcher determined there was less than 100% correct implementation of the intervention, the researcher held a retraining session with the parent via a phone call.

The Teacher/Researcher Integrity Checklist (see Appendix L) was also developed by the researcher in order to assess if the teacher and researcher correctly implemented the intervention. The researcher conducted daily assessment of treatment integrity by reviewing the checklist items to ensure correct implementation. Psychometric data were not available for either instrument.

Treatment acceptability was assessed using a slightly modified version of the The Intervention Rating Profile -15 (Martens, Witt, Elliott, & Darveaux, 1985) (see Table 3, Appendix M) in order to obtain responses from each parent. The researcher administered the instrument during separate meetings with each participant's parent, held upon conclusion of the intervention phase. During this meeting overall results of the research were shared, and participants were offered the opportunity to continue the intervention if desired.

The IRP-15 is a modified version of the original IRP-20 consisting of 20 items. Internal consistency reliability of the IRP-15 was found to be .98 using Cronbach's alpha. It consists of 15 items using a 6-point Likert scale (1 = "not at all acceptable" to 6 = "very acceptable"), with scores ranging from 15 to 90. Scores higher than 52.50 indicate treatment acceptability (Von Brock & Elliott, 1987; Witt & Martens, 1983). Other studies have used a modified version of the IRP-15, including those which examined the effectiveness of the school-home note, while maintaining its' psychometric properties (Cowart, 1999; Freer & Watson, 1999; Kraemer, 1994; LeBlanc, 1998).

Interobserver Reliability

During a 30-minute training session, the researcher reviewed with the interobserver the procedures for conducting behavioral observations, by observing each of targeted participants until interobserver agreement of 80% was achieved. Only one training session was needed. The interobserver conducted observations of participants 44% of the time, across both baseline and intervention phases. Interobserver agreement was calculated as a percentage using the following formula: agreements divided by agreements + disagreements X 100%. Agreements were defined as intervals in which both the researcher and interobserver agreed that a particular target behavior occurred or did not occur. Disagreements were defined as intervals in which only one observer indicated the behavior occurred or did not occur. Interobserver reliability was set as a minimum of 80% or an immediate retraining session by the researcher was held. Data collected by the interobserver was used to validate data obtained by the researcher.

CHAPTER III

RESULTS

Research primarily had focused on the efficacy of the school-home note intervention in the elementary and middle school levels. Only one study in the research literature employed the use of the school-home note with high school students (Trice, Parker, Furrow, & Iwata, 1983). No study had been noted which communicated the school-home note through the Internet. Therefore, the present study was conducted to examine the efficacy of the school-home note intervention on inappropriate classroom behaviors of high school level students, and the parental acceptability of the school-home note intervention.

A single-subject research design, that utilized three participants, and incorporated a multiple baseline was used. Data were obtained from each participant during daily 20-minute observations of three target behaviors (i.e., off-task, fidgeting, and inappropriate verbalizations) across both the baseline and intervention phases. The mean of the daily percentage of intervals of target behaviors (i.e., off-task, fidgeting, and inappropriate verbalizations) observed during both phases was obtained. The mean of the daily percentage of intervals of target behaviors observed during the baseline phase served as the performance criterion for consequences during the intervention phase for each participant. The performance criterion was calculated separately for each participant.

Consequences could have been either positive (e.g., money, driving or phone privileges) or negative (e.g., extra household chore, restricted from friends or television) and were predetermined collaboratively between each participant and his parent during separate conferences held by the researcher (see Table 1) upon the conclusion of the baseline phase. Consequences were selected on the basis of that which would reinforce reduction of the participant's target behaviors. A positive consequence from his parent, was to be given to each participant if the mean of the daily percentage of intervals of all target behaviors observed was less than the performance criteria determined during baseline for each participant. Similarly, each participant was scheduled to receive a negative consequence from his parent if the mean of the daily percentage of intervals of all target behaviors observed was equal to or greater than the performance criterion determined during baseline for each participant.

The first research question raised for the present study was as follows: Was the school-home note intervention effective in reducing participant's inappropriate classroom behaviors at the secondary education level? Results indicate the intervention appeared to be effective in reducing each of the target behaviors for all three participants. Specific results obtained are presented below.

Table 1

Positive and Negative Consequences Identified and Approved by Each Participant and his Parent

Positive Consequences
Participant 1
Go out with friends the same day.
Drive truck the same day.
Family meeting the same day.
Participant 2
Lunch money ($5.) for the next school day.
Another person feed, water, and walk the pet the same day.
Another person mow and weed eat grass that week.
Participant 3
Place $10. in a box the same day to buy baseball glove.
Place $10. in a box the same day to buy baseball hat.
Place $10. in a box the same day to save toward the next car payment.

Negative Consequences
Participant 1
Not allowed to go out with friends the same day.
Not allowed to drive truck the same day.
Not allowed to use the phone the same day.
Participant 2
Wash the dinner dishes and clean kitchen cabinets the same day.
Clean the sink, tub, toilet, and mop his bathroom the same day.
Dust and vacuum the living room the same day.
Participant 3
Straighten and vacuum his bedroom the same day.
Vacuum the living room the same day.
Get up 20 minutes earlier to drive sisters to school the next morning.

Decreases in Target Behaviors

Participant 1

During baseline, Participant 1 established a performance criterion of 33%. As seen in Figure 1, each of the target behaviors were fairly consistent across baseline. The mean of the daily percentage of intervals of all target behaviors observed during baseline ranged from 35% to 30% (SD = .47). Target behaviors were reduced upon the introduction of the school home note intervention, with the exception of fidgeting behaviors (i.e., chewing and tapping his pen) on the first day of the intervention phase. Target behaviors were variable with a continued downward slope. The mean of the daily percentage of intervals of all target behaviors observed during the intervention phase ranged from 0% to 24% (SD = .49).

As seen in Table 2, the daily percentage of off-task behaviors observed during baseline ranged from 18% to 37%, with a mean of 27% (SD = .44) for Participant 1. Although off-task behaviors were fairly consistent across both phases, a sharp decrease in the slope occurred with the implementation of the school-home note intervention. The daily percentage of off-task behaviors observed during the intervention phase ranged from 0% to 26%, with a mean of 5% (SD = .21).

The daily percentage of fidgeting behaviors observed during baseline ranged from 55% to 66%, with a mean of 62% (SD = .49). Relative to the other two target behaviors, a higher frequency of fidgeting behaviors were observed during both phases and was fairly consistent across baseline, but slightly variable across the intervention phase. The daily percentage of fidgeting behaviors observed during the intervention phase ranged

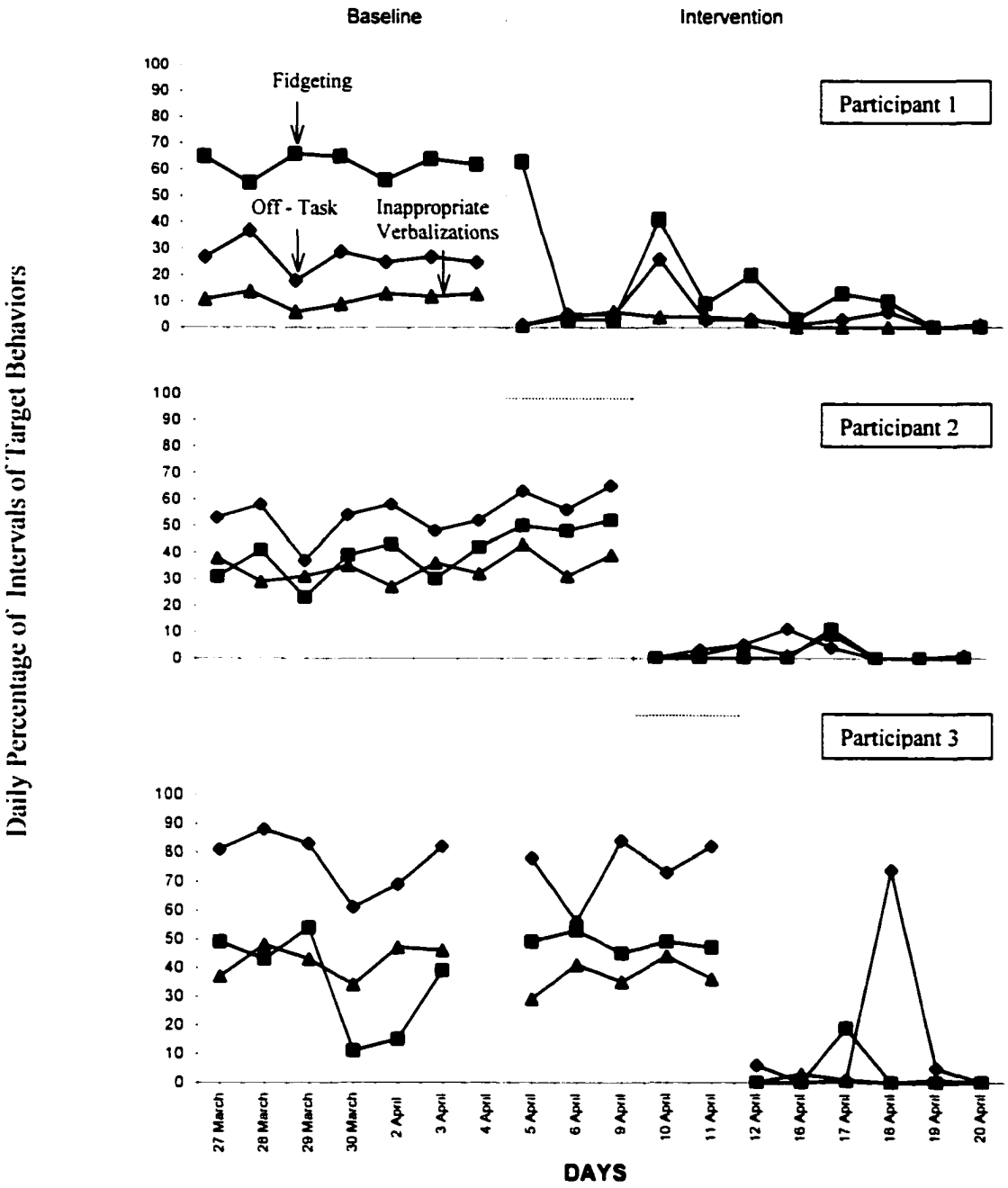

Figure 1. Daily percentage of intervals in which target behaviors were observed during baseline and intervention phases for participants 1, 2, and 3. A break in data points indicate an absence from school.

Table 2

Range, Mean, and Standard Deviation of Daily Percentages of Each Target Behavior Observed During Baseline and Intervention Phases

Target Behaviors	Baseline Phase			Intervention Phase		
	Range	Mean	Standard Deviation	Range	Mean	Standard Deviation
			Participant 1			
Off-task	18% - 37%	27%	.44	0% - 26%	5%	.21
Fidgeting	55% - 66%	62%	.49	0% - 63%	15%	.36
Inappropriate Verbalizations	6% - 14%	11%	.31	0% - 6%	2%	.14
			Participant 2			
Off-task	37% - 65%	54%	.50	0% - 11%	3%	.17
Fidgeting	23% - 52%	40%	.49	0% - 11%	1%	.12
Inappropriate Verbalizations	27% - 43%	34%	.47	0% - 9%	2%	.15
			Participant 3			
Off-task	61% - 88%	76%	.43	0% - 74%	14%	.35
Fidgeting	11% - 54%	41%	.49	0% - 19%	3%	.17
Inappropriate Verbalizations	29% - 48%	40%	.49	0% - 3%	1%	.11

from 0% to 63%, with a mean of 15% (SD = .36). The wide range was due to a high frequency of fidgeting behaviors (i.e., chewing on pen) observed during the first day of the intervention phase.

The daily percentage of inappropriate verbalization behaviors observed during baseline ranged from 6% to 14%, with a mean of 11% (SD = .31). Behaviors were fairly consistent across both phases and were less frequently exhibited relative to off-task and fidgeting behaviors. The daily percentage of inappropriate verbalization behaviors observed during the intervention phase ranged from 0% to 6%, with a mean of 2% (SD = .14).

Participant 2

During baseline, Participant 2 established a performance criterion of 43%. As seen in Figure 1, each of the target behaviors were slightly variable across baseline. The mean of the daily percentage of intervals of all target behaviors observed during baseline ranged from 30% to 52% (SD = .49). Target behaviors were sharply reduced upon the introduction of the school-home note intervention and remained low throughout the intervention phase. The mean of the daily percentage of intervals of all target behaviors observed during the intervention phase ranged from 0% to 8% (SD = .15).

As seen in Table 2, the daily percentage of off-task behaviors observed during baseline ranged from 37% to 65%, with a mean of 54% (SD = .50) for Participant 2. Higher frequencies of off-task behaviors were observed during baseline relative to

fidgeting and inappropriate verbalizations. Off-task behaviors were also variable with a slight increasing slope during baseline, followed by a sharp decreasing slope upon implementation of the school-home note intervention. The daily percentage of off-task behaviors observed during the intervention phase ranged from 0% to 11%, with a mean of 3% (SD = .17), and remained low throughout the phase.

The daily percentage of fidgeting behaviors observed during baseline ranged from 23% to 52%, with a mean of 40% (SD = .49). Behaviors were variable across baseline with a moderate increasing slope, followed by a sharp decreasing slope that remained low during the intervention phase. The daily percentage of fidgeting behaviors observed during the intervention phase ranged from 0% to 11%, with a mean of 1% (SD = .12).

The daily percentage of inappropriate verbalization behaviors observed during baseline ranged from 27% to 43%, with a mean of 34% (SD = .47). Behaviors were fairly consistent across the baseline phase, followed be a sharp decreasing slope that remained low during the intervention phase. The daily percentage of inappropriate verbalization behaviors observed during the intervention phase ranged from 0% to 9%, with a mean of 2% (SD = .15).

Participant 3

During baseline, Participant 3 established a performance criterion of 51%. As seen in Figure 1, all three target behaviors were variable across baseline. The mean of the daily percentage of intervals of all target behaviors observed during baseline ranged from 35% to 60% (SD = .50). Target behaviors were sharply reduced upon the introduction of

the school-home note intervention and remained low throughout the intervention phase, with the exception of day16 in which the participant was off-task 74% of the observed intervals (due to closed eyes, repeatedly). The mean of the daily percentage of intervals of all target behaviors observed during the intervention phase ranged from 1% to 25% (SD = .24).

As seen in Table 2, the daily percentage of off-task behaviors observed during baseline ranged from 61% to 88%, with a mean of 76% (SD = .43) for Participant 3. Higher frequencies of off-task behaviors were observed during baseline relative to fidgeting and inappropriate verbalizations. Off-task behaviors were also variable during baseline, followed by a sharp decreasing slope that remained low (with the exception of day 16) upon implementation of the school-home note intervention. The daily percentage of off-task behaviors observed during the intervention phase ranged from 0% to 74%, with a mean of 14% (SD = .35).

The daily percentage of fidgeting behaviors observed during baseline ranged from 11% to 54%, with a mean of 41% (SD = .49). Fidgeting behaviors were evidenced with initial variability during the baseline phase, followed by a sharp decreasing slope that remained low during the intervention phase. The daily percentage of fidgeting behaviors observed during the intervention phase ranged from 0% to 19%, with a mean of 3% (SD = .17).

The daily percentage of inappropriate verbalization behaviors observed during baseline ranged from 29% to 48%, with a mean of 40% (SD = .49). Behaviors were slightly variable during the baseline phase with a sharp decreasing slope that remained

low during the intervention phase. The daily percentage of inappropriate verbalization behaviors observed during the intervention phase ranged from 0% to 3%, with a mean of 1% (SD = .11).

Interobserver Reliability

Interobserver reliability was calculated as a percentage using the following formula: agreements divided by agreements + disagreements X 100%. Agreements were defined as intervals in which both the researcher and interobserver agreed that a particular target behavior occurred or did not occur. Disagreements were defined as intervals in which only one observer indicated the behavior occurred or did not occur. Interobserver reliability was collected across both baseline and intervention phases during 44% of the observations. Reliability estimates averaged 98% (range = 92% to 100%).

Treatment Integrity

Prior to the study, the researcher held separate conferences with each participant's parents to discuss implementation of the intervention. Each parent was given an instructional sheet (see Appendix J) consisting of 6-items that specifically stated the steps required for accurate implementation of the intervention. Using these items, the researcher developed the Parent Integrity Checklist (see Appendix L), used to assess treatment integrity. The researcher assessed treatment integrity daily by reviewing the accuracy of the responses indicated on the school-home note returned from each parent each night. Items on the Researcher/Teacher Integrity checklist (see Appendix K) were also reviewed and implemented daily to maintain treatment integrity.

Treatment integrity was observed to be 100% for each of the parents, teacher, and researcher. However, the parents of Participants 1 and 3 were unable to return the school-home note during the initial two and three days during the intervention phase, respectively, due to software incompatibility. On each of these days, the researcher called both parents to inquire if they had received the school-home note and ensured all items on the Parent Integrity Checklist were correctly implemented. The researcher resolved the software incompatibility by installing needed software for the parent of Participant 1. The parent of Participant 3 chose to not update the computer software and obtained the use of another computer that had the appropriate operating system.

Treatment Acceptability

The perceptions of treatment acceptability by each of the participants' parents were assessed using a modified version of The Intervention Rating Profile -15 (Martens et al., 1985) (see Table 3, Appendix M). The researcher administered the instrument to each participant's parents during separate meetings held immediately upon conclusion of the intervention phase. Both the modified and original versions consisted of 15 items using a 6-point Likert scale (1 = "not at all acceptable" to 6 = "very acceptable"), with scores ranging from 15 to 90. Scores higher than 52.50 on the original IRP-15 indicate treatment acceptability (Von Brock & Elliott, 1987; Witt & Martens, 1983). Internal consistency of the original IRP-15 was found to be .98 using Cronbach's alpha (Martens et al.). Items on the modified IRP-15 varied only slightly from original version by adding the words "parent" and "home." Other studies, including those which measured the

efficacy of the school-home note, have used a modified version of the IRP-15 while maintaining its' psychometric properties (Cowart, 1999; Freer & Watson, 1999; Kraemer, 1994; LeBlanc, 1998).

The second research question raised by the present study was as follows: Was the school-home note intervention that targeted inappropriate classroom behaviors acceptable to each participant's parent at the secondary education level? Responses indicated a high rate of acceptability from each participant's parents. Scores obtained from the parents of Participants 1, 2, and 3 were 86, 88, and 90, respectively, on a scale of 90. High ratings were given to the items indicating the intervention was effective in changing the participants' target behaviors and would suggest the intervention to other teachers and parents. They liked the procedures implemented in the intervention and would be willing to continue them. They also indicated the school-home note intervention was an acceptable intervention for the target behaviors and would be appropriate to use for other problem behaviors.

Table 3

Questions and Parent Responses to the Modified Intervention Rating Profile-15

Questions	Parent 1	Parent 2	Parent 3
1. This would be an acceptable intervention for (target child's) problem behavior.	6	6	6
2. Most parents/teachers would find this intervention appropriate for behavior problems in addition to the ones exhibited by (target child).	5	5	6
3. This intervention has been effective in changing (target child's) problem behavior.	6	6	6
4. I would suggest the use of this intervention to other parents/teacher.	6	6	6
5. (Target child's) behavior problem is disruptive enough to warrant use of this intervention.	5	5	6
6. Most parents/teachers would find this intervention suitable for the behavior problems that (target child) has exhibited in the past.	6	6	6
7. I would be willing to continue the use of the intervention in the classroom setting or at home.	6	6	6
8. This intervention has not resulted in negative side effects for (target child).	6	6	6
9. This intervention would be appropriate for a variety of children.	6	6	6
10. This intervention is consistent with those I have used in the classroom setting or at home.	6	6	6
11. The intervention was a fair way to handle (target child's) problem behavior	5	6	6

Table 3 Continuation

Questions and Parent Responses to the Modified Intervention Rating Profile-15

12. This intervention is reasonable for the problem behaviors that (target child) has exhibited.	6	6	6
13. I liked the procedures used in this intervention.	6	6	6
14. This intervention was a good way to handle (target child's) behavior problems.	5	6	6
15. Overall, this intervention has been beneficial for (target child).	6	6	6
Total Score	86	88	90

Note. Scores range from 1 (strongly disagree) to 6 (strongly agree).

CHAPTER IV

DISCUSSION

Research Question 1

The present study was designed to address two specific research questions. The first question was as follows: Was the school-home note intervention effective in reducing participant's inappropriate classroom behaviors at the secondary education level? Results indicate the school-home note intervention appeared to be effective in decreasing inappropriate classroom behaviors among three secondary level participants, enrolled in regular education. When compared to the baseline phase, all three participants evidenced a lower mean of the daily percentage of intervals of each of the target behaviors observed during the intervention phase. Data points indicated a sharp decrease in each of the target behaviors across phases. The daily achievement of the performance criterion by each participant did not necessitate the delivery of negative consequences. Results were consistent with results of other studies that reported the effectiveness of the school-home note in reducing disruptive and disengaged behaviors of students in the elementary setting (Cottone, 1998; Kelly & McCain, 1995; LeBlanc 1998; McCain & Kelley, 1993, 1994).

Participant 1 exhibited a decrease in the mean of the daily percentage of intervals in off-task behaviors (Baseline, $\underline{M}$ = 27%, Intervention, $\underline{M}$ = 5%), fidgeting behaviors (Baseline, $\underline{M}$ = 62%, Intervention, $\underline{M}$ = 15%), and inappropriate verbalization behaviors

(Baseline, M = 11%, Intervention, M = 2%). During baseline, the most frequently exhibited behavior was fidgeting which primarily consisted of chewing gum and chewing on a pen. Fidgeting behaviors showed the greatest decrease during the intervention phase. When examining the rates of target behaviors across phases, there was a notable decrease in the mean of the daily percentage of intervals of all target behaviors observed from the baseline phase (33%) and intervention phases (7%).

Participant 2 exhibited a decrease in the mean of the daily percentage of intervals in off-task behaviors (Baseline, M = 54%, Intervention, M = 3%), fidgeting behaviors (Baseline, M = 40%, Intervention, M = 1%), and inappropriate verbalization behaviors (Baseline, M = 34%, Intervention, M = 2%). During baseline, off-task behaviors were exhibited with the greatest frequency. Decreases across phases were sharp and immediate, and remained low during the intervention phase. The mean of the daily percentage of intervals of all target behaviors observed during baseline (43%) decreased to 2% during the intervention phase.

Participant 3 exhibited a decrease in the mean of the daily percentage of intervals in off-task behaviors (Baseline, M = 76%, Intervention, M = 14%), fidgeting behaviors (Baseline, M = 41%, Intervention, M = 3%), and inappropriate verbalization behaviors (Baseline, M = 40%, Intervention, M = 1%). Similar to Participants 2, off-task behaviors were exhibited with the greatest frequency during the baseline phase. Rates of target behaviors immediately and sharply decreased across phases. A notable decrease of the mean of the daily percentage of intervals of all target behaviors was observed from the baseline phase (51%) to the intervention phase (6%).

Decreases in off-task behaviors, fidgeting behaviors, and inappropriate verbalization behaviors were evidenced for each of the participants when the intervention was applied. These decreases were immediate and sharp, and demonstrated the effectiveness of the school-home note intervention in secondary education students.

Research Question 2

The second research question was as follows: Was the school-home note intervention that targeted inappropriate classroom behaviors acceptable to each participant's parent at the secondary education level? Perceptions of treatment acceptability of each of the participant's parents were obtained using a modified version of the Intervention Rating Profile-15 (see Appendix M). Responses indicated a high rate of acceptability from the parents. High ratings were given to the items indicating the intervention was effective in changing the participants' target behaviors and would suggest the intervention to other teachers and parents. Responses indicated they liked the procedures implemented in the intervention and would be willing to continue them. A further indication of treatment acceptability of the Internet-delivered school-home note intervention was the expressed willingness to use the techniques for other problem behaviors.

Internal consistency was found to be .98 for the original IRP-15 (Martens et al., 1985). Items on the modified IRP-15 varied only slightly from original version by adding the words "parent" and "home." Other studies, which measured the efficacy of the school-home note, have used a modified version of the IRP-15 while maintaining its'

psychometric properties (Cowart, 1999; Freer & Watson, 1999; Kraemer, 1994; LeBlanc 1998).

Treatment Integrity

Treatment Integrity was assessed daily by the researcher using the Parent Integrity Checklist (see Appendix L) and the Teacher/Researcher Integrity Checklist (see Appendix K). Items on the Parent Integrity Checklist were compared to responses indicated by each parent on the school-home note to measure the accuracy of the treatment integrity. Items on the Researcher/Teacher Integrity checklist were also reviewed and implemented daily to maintain treatment integrity. Psychometric data were not available for either instrument.

Treatment integrity was reported to be 100% for each of the participant's parents, teacher, and researcher. Parents of Participants 1 and 3 experienced computer software incompatibility during the first two and three days of baseline, respectively. The researcher called each parent to ensure all items on the Parent Integrity Checklist were implemented and the software incompatibility was quickly resolved. It should be noted that because there was some deviation from the treatment integrity plan by using the back-up plan (i.e., called parents), a margin of error is possible.

In conclusion, the school-home note intervention was effective in the present study. In regard to the first research question, the school-home note intervention was effective in reducing each of the target behaviors for each participant. In regard to the second research question, each participant's parent perceived the school-home note as an acceptable intervention for the present study.

Explanation of Results

Possible explanations for the results of the present study include the increased likelihood of parents receiving the school-home note when communicated through the Internet, as opposed to the traditional means of relying on students to give the note to his or her parents. Internet communication may have also increased the probability of parents responding to the school-home note since it afforded them the opportunity to respond at a time that is more conducive to their schedule. Communication between the school and home may have also served as motivation for participants to respond favorably to the intervention, as each participant knew his parent would be informed of his behaviors each day. This motivation may have affected present outcomes. Similar to results of other studies, receipt of positive and negative consequences in the present study could have positively affected behavior change (Cottone, 1999; LeBlanc, 1998; McCain & Kelley, 1994). Consequences served to reinforce low rates of the target behaviors (DRL) and have been demonstrated to be an effective method of behavior reduction (Deitz, 1977; Deitz et al., 1978; Deitz and Repp, 1973; Hobbs & Holt, 1977). Furthermore, the description of the available negative consequences that occurred at the pretreatment conference may have served as a warning stimulus to the participants of this study as evidenced by the fact that their behavior decreased without coming into contact with negative consequences and inappropriate behaviors never exceeded the performance criterion (Malott, Malott, & Trojan, 2000). Last, relative to behaviors such as fighting and verbal attacks, the target behaviors in the present study were of a less severe nature, and

participants were possibly more responsive to the experimental control of the intervention.

Limitations to the Present Study

The present study demonstrated the effectiveness of the school-home note intervention in decreasing inappropriate classroom behaviors of secondary level students. Results demonstrated a notable decrease in target behaviors across phases and supported findings of prior research that examined the effectiveness of the school-home note intervention (Cowart, 1999; Kelly & McCain, 1995; Kraemer, 1994; LeBlanc, 1998; McCain & Kelley, 1993, 1994; Rosen et al., 1990). However, there were limitations to the present study.

1. Due to expressed concern by the school principal of time constraints of the faculty, the researcher e-mailed the school-home note to each participant's parents daily. Different results may have been obtained if the teacher had e-mailed the school-home note to each parent instead. Future research is needed to measure behavior changes with direct communication between the teacher and parents.

2. The present study examined the efficacy of the school-home note procedure with three Caucasian males in grades 11 and 12. Additional research is needed to explore the effects of the school-home note communicated to parents via the Internet, with additional populations in the secondary level that may include students who are female, of other ethnicities, with special needs, are alternatively placed, and of other secondary grade levels. Similarly, studies should also include examination of the availability and

skill level in using the Internet by different populations of parents and teachers in order to communicate using this technology.

3. The present study included one teacher. Additional studies that examine the effectiveness of the school-home note intervention when employed by several teachers are needed in order to increase the generalizability of the findings.

4. It should be noted the target behaviors selected for the present study were minor relative to other behaviors such as fighting, verbal attacks, truancy, and chronic or severe noncompliance with school authorities. Examination of the effectiveness of the school-home note intervention with behaviors that may foster greater classroom difficulties is needed.

5. Additional research is also needed to determine the results of behavior change under the same conditions when target behaviors are positively worded. Kelley (1990) suggested target behaviors included in school-home notes should be observable, specifically defined, positively worded, easily monitored, occur frequently, and are considered important by all of the student's teachers. Such guidelines may make the school-home note more appealing to students and their parents, and perhaps favorably contribute toward desired outcomes.

6. The researcher, using a current spreadsheet program, created the school-home note used in the present study. Software incompatibility between two of the participant's parents and the researcher presented initial technical difficulties that were quickly resolved. Exploration of educational software programs specifically designed to

communicate information between teachers and parents that are time efficient and multi-functional is needed.

7. The performance criterion established for each participant was achieved daily during the intervention phase, resulting in delivery of only positive consequences by each participant's parent. Additional research is needed to assess if the administration of negative consequences under the same conditions would have yielded different results. The effects of the delivery of positive and negative consequences have been examined in the elementary level with positive results (Cowart, 1999; Kraemer, 1994; McCain & Kelley, 1993, Rosen et al., 1990). Studies that have examined the differential effects of positive and negative consequences have demonstrated a greater increase in academic and social behaviors when a combination of both was employed (Kelly & McCain, 1995; McCain & Kelley, 1994).

8. Treatment integrity was assessed daily using the Parent Integrity Checklist (see Appendix L) and the Teacher/Researcher Integrity Checklist (see Appendix K), followed by phone calls to parents when necessary. Compliance with items on both checklists were dependent upon parental self-report. The lack of data from direct observation of parents implementing the home-based components of the intervention is a limitation to this study. Parent responses on the school-home note indicated 100% integrity; however, direct parent observations may have yielded different results. A form of communication between each participant and the researcher that confirmed positive and negative consequences were delivered by their parents may have been useful. The validity of the results of the present study could have also been threatened due to the lack of

psychometric data available for both integrity checklists developed by the researcher. Nevertheless, given the notable behavior change as evidenced by the mean of the daily percentage of intervals of all target behaviors observed across phases, it is likely that the intervention was implemented with high integrity.

9. The researcher held a conference with each participant and his parent prior to conducting the initial observation and e-mailing the school-home note during the intervention phase. During each conference the study was explained to each participant and assent obtained, as well as identification of positive and negative consequences. The preintervention conference appeared to have influenced the immediate and sharp reduction in each of the target behaviors for each of the participants. Results may have differed if each participant was not aware of the initial observation conducted by the researcher during the intervention phase until after receipt of the initial school-home note by each parent, in order to more clearly demonstrate the effect of the note upon behavior changes.

10. Another limitation to the study is the time of the school year in which the study was conducted and the lack of follow-up data. Results may have varied if participants were observed at other times in the school year. Since the study was conducted near the end of the last trimester, time constraints did not permit collection of follow-up data. Future research might include the effect of fading the intervention as well as follow-up data measuring behavioral changes.

In conclusion, the research literature has focused on the effectiveness of the school-home note intervention in the elementary level. Data has shown it to be effective

in reducing inappropriate classroom behaviors such as disruptiveness and disengagement. Only one published study examined its effectiveness in the secondary level (Trice et al., 1983). Additional studies are needed that examine the effectiveness of the school-home note in the secondary level, as well as communicating information to parents via the Internet about their child's performance in school.

Implications for the Future

The school-home note intervention offers many advantages for communicating information between the school and home about a student's classroom behaviors and other educationally related information. It can be employed across all grade levels and educational settings, including alternative education. The communication is direct and immediate, and can convey a wide range of information such as student attendance, class participation, assignment deadlines and completion, grades, class behaviors, school activities, and request for parent conferences. This information can also be communicated at the convenience of the teacher and parent who may have limited time and prefer to send the note during more convenient times. It also does not require the teacher to alter his or her instructional style or classroom management, thus making it possibly more appealing to teachers.

The school-home note is also a convenient form of communication, as various educational programs are available that combine multi-educational functions (e.g., seating charts, grade book, calendar) with an e-mail component. Such programs allow teachers to perform several necessary tasks and communicate important information to

each student's parent who has Internet access. Another important advantage is the opportunity for parents to provide a wider variety of secondary consequences not available to teachers, thus affording greater likelihood of improving student behaviors. Lastly, the school-home note intervention requires limited training, depending upon the complexity of the software program and the skill level of the user with a computer and the Internet.

Follow-up research is needed to examine if the obtained results would be maintained under the same conditions. This would serve to determine further validity of the obtained results of the present study. Other means of Internet communication between the school and home should be explored. This includes free web sites that are designed to communicate specific areas of educational information such as classroom behaviors, grades, attendance, assignments, and school news. Additional areas of future research include the effects of the intervention upon the academic performance of secondary level students enrolled in regular education and special education programs.

Results of the present study indicate the school-home note intervention was effective in decreasing inappropriate classroom behaviors of secondary level students. As the application of technology continues to expand in the educational field and the home, the use of the school-home note intervention becomes an increasingly viable means of communicating between school personnel and parents. The use of such a promising intervention should be encouraged.

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APPENDIX A

CLASSROOM OBSERVATION FORM

CLASSROOM OBSERVATION FORM

Student Identification Code: ___________ Date: _____________

Observer: _________________________

	1 min				2 min				3 min				4 min			
Target Behaviors	0-10	15-25	30-40	45-55	0-10	15-25	30-40	45-55	0-10	15-25	30-40	45-55	0-10	15-25	30-40	45-55
Off-task																
Fidgeting																
Inappropriate Verbalizations																
Target Behaviors																
Off-task																
Fidgeting																
Inappropriate Verbalizations																
Target Behaviors																
Off-task																
Fidgeting																
Inappropriate Verbalizations																
Target Behaviors																
Off-task																
Fidgeting																
Inappropriate Verbalizations																
Target Behaviors																
Off-task																
Fidgeting																
Inappropriate Verbalizations																

Target Behaviors:	**Total Behaviors:**	**Percent:**	**Total %:**	**Met Criteria:**	
Off-task	____/80	________			
Fidgeting	____/80	________	___/240 = __%	Y	N
Inappropriate Verbalizations	____/80				

APPENDIX B

IRB APPROVAL

Mississippi State

March 23, 2001

Linda Gable
LaQuinta Inn
1450 Airport Freeway, Room 124
Bedford, TX 76022

RE: IRB Application # 01-089

Dear Ms. Gable:

On March 20, 2001, the Mississippi State University Institutional Review Board for the Protection of Human Subjects in Research voted to approve your application **titled "The Efficacy of a School-Home Note Intervention Using Internet Communication for Decreasing Inappropriate Behaviors of Secondary Level Students"** with contingencies. The contingencies for approval have been satisfied.

Please note the expiration date for approval of this project is March 15, 2002. If additional time is needed to complete the project, you will need to submit *a Request for Change in IRB Approval* form prior to March 15, 2002. Please refer to your docket number (#01-089) when contacting our office regarding this application. Also, please note that the IRB reserves the right, at anytime during the project period, to observe you and the additional researchers on this project.

We appreciate your cooperation in this matter and wish you the best of luck in your research. Please contact me if you have further questions or concerns.

Sincerely,

Tracy S. Arwood
Regulatory Compliance Officer

Cc: Sam Givhan
File

APPENDIX C

ADMINISTRATOR/TEACHER CONSENT FORM

ADMINISTRATOR/TEACHER CONSENT FORM

_____ (Administrator/Teacher) employed by the Hurst, Euless, Bedford Independent School District located in Texas, has been notified and agrees to participate in the doctoral research that Linda Gable plans to conduct with students attending this school. Dr. Sam Givhan, faculty of Educational Psychology of the Mississippi State University, will supervise this research and may be reached by calling the main number of the Department of Counselor Education and Educational Psychology.

_____ _____

Administrator's/Teacher's Signature Date

APPENDIX D

INTEROBSERVER CONSENT FORM

INTEROBSERVER CONSENT FORM

Michelle Edwards-Scott, School Diagnostician, employed by Hurst, Euless, Bedford Independent School District, located in Texas, been notified and agrees to participate in the doctoral research that Linda Gable plans to conduct with students attending this school. Dr. Sam Givhan, faculty of Educational Psychology of the Mississippi State University, will supervise this research and may be reached by calling the main number of the Department of Counselor Education and Educational Psychology.

_____ _____

Interobserver's Signature Date

APPENDIX E

PARENTAL CONSENT FORM

PARENTAL CONSENT

The Efficacy of a School-Home Note Intervention using Internet Communication for Decreasing Inappropriate Classroom Behaviors of Secondary Level Students
Department of Counselor Education and Educational Psychology
Mississippi State University
Linda Gable

1. I am conducting a study that involves research. The purpose of this research project is to determine the effects of a school-home note communicated via the Internet, on the academic and social behaviors of three secondary level students. I expect the duration of you and your child's participation to be approximately 4 weeks. In the beginning, I will meet with you, your child, your child's teacher, the school diagnostician, and a school administrator to discuss the study and the role of each person. During this meeting, we will identify specific academic or social behaviors we would like your child to improve in class.

I will observe your child's academic and social behaviors in his or her classroom for approximately one class period each day. Your child's teacher will e-mail you a note each day telling you about your child's behavior and whether your child met his or goal for the day. You will be asked to allow your child a privilege if he or she meets the goal or a negative consequence if he or she does not meet the goal each day. You will then need to e-mail the note back to your child's teacher on the same day. I will meet with each of you at the end of the study to discuss if you think your child's behavior improved.

2. Reasonable foreseeable risks or discomforts that might occur as a result of you and your child's participation in this research project may include potential emotional or social discomfort (i.e., embarrassment, anxiety, disappointment, etc.). No one can accurately predict the responses of those involved during the study and the outcome(s) of the study. although efforts are taken to consider the welfare of each person. If you have concerns, please immediately notify the researcher at (817) 233-2500.

3. Benefits to you or to others, which may be reasonably expected from the research, include improvement in your child's academic and/or social behaviors in the classroom (i.e., on-task and work accuracy)

4. Confidentiality of records identifying the subject will be maintained by the researcher and only shared with those directly involved in the study (i.e., your child's teacher, school administrator, school diagnostician, and university dissertation committee). All identifying information of you and your child will be removed at which time the doctoral degree is conferred upon the researcher. Also, please note that these records will be held by a state entity and therefore are subject to disclosure if required by law.

5. If you should have any questions about this research project, please feel free to contact Linda Gable at (817) 233-2500. For additional information regarding human participation in research, please feel free to contact the MSU Regulatory Compliance Office at 662-325-0994.

6. Please understand that you and your child's **participation is voluntary**, your **refusal to participate will involve no penalty or loss** of benefits to which you or your child are otherwise entitled, and you and your child **may discontinue your participation** at any time without penalty or loss of benefits.

7. There are additional elements of informed consent that should be noted. Anticipated circumstances under which your participation may be terminated by the investigator without regard to your consent are those that may present adverse effects upon the researcher, it's participants, the university, or the study. If you choose to withdraw from the study, you should contact the researcher to arrange a meeting within 24 hours of your decision. No penalties to you or your child will occur as a result of your decision. In the event that significant new findings develop during the course of the research, which may relate to your willingness to continue participation, you will be notified by the researcher. There will be approximately 3 subjects (students) involved in the study.

Informed Consent **MUST** be documented by the use of a written consent form approved by the IRB, and signed by you or your legally authorized representative. A waiver of this requirement can **only** be granted by the Mississippi State University Institutional Review Board for the Protection of Human Subjects in Research, in accordance with 45 CFR 46. Also, you **WILL** be given a copy of this form for your records.

_____ _____

Participant's Signature Date

_____ _____

Investigator's Signature Date

(INFORMED CONSENT DOCUMENT / IRB-99-02)

APPENDIX F

STUDENT REFERRAL FORM

STUDENT REFERRAL FORM

TO: Regular Education Teachers

FROM: Linda Gable

DATE: March 21, 2001

WOULD YOU LIKE SOME HELP??

I am offering my assistance to regular education teachers whose students' are having difficulty staying on task, remaining in seat, fidgeting, calling out, talking out of turn, etc. I am conducting a study that measures the effectiveness of using e-mail to communicate with parents about his or her child's behaviors in these areas. The study will involve 3 regular education students and should last approximately 3-4 weeks. The study will not interrupt the teachers' instructional plans. I will assist each teacher, parent, and student on a daily basis to minimize time demands. Each parent will need to have Internet access at home and able to send and receive e-mail. Will you please provide names of students you teach, that you recommend for the study by placing their name on the blanks provided below? I will contact you if the names are selected. If you have any questions, you may reach me at (817) 233-2500. Thank you.

Student Names: (Please print)	Class Period of Student
_____	_____
_____	_____
_____	_____
_____	_____

Name of Teacher Referring Students: (Please print) _____

*Please return this form to Michelle Edwards-Scott's box by Monday, March 26. Thanks!

APPENDIX G

SCHOOL-HOME NOTE

SCHOOL-HOME NOTE

Student Identification Code: _____ Date: _____

Target Behaviors	Percentage	Description of Behaviors Observed
Off-task	%	
Fidgeting	%	
Inappropriate Verbalizations	%	
Daily Percentage: (Must be less than __% to meet behavior goal)	%	

Did Student meet goal for today: _____ YES _____ NO

Teacher Comments: _____

Teacher Signature: _____
(Use Predetermined Code)

PARENT COMPLETES:

Parent gave child a positive consequence if goal was met: _____ YES _____ NO

If yes, what was it: _____

Parent gave child a negative consequence if goal was not met: _____ YES _____ NO

If yes, what was it: _____

Parent Comments: _____

Parent Signature: _____
(Use Predetermined Code)

APPENDIX H

STUDENT ASSENT FORM

STUDENT ASSENT FORM

Project Title: Communication with Teachers, Parents, and Students

Investigator: Ms. Linda Gable

I am doing a research study about communication among teachers, parents, and students to provide you opportunity to achieve academic success through the combined efforts of you, your teacher, and your parents. You will be asked to meet with your parent, teacher, school diagnostician, school administrator, and the researcher to discuss some ways to help you in school. You will be observed each day for approximately one class period each day. Your teacher will send your parent an e-mail each day that describes your behavior during class. If your show improvement in your behavior, then your parent will give you a privilege. However, if you do not show improvement, your parent will give you a negative consequence. This is so that your teacher and parent work together to help you succeed in school. If you decide that you want to be part of this study, you will be asked to work with your teacher and parent as they communicate about your school progress.

There are some things about this study you should know. You do not have to be in this study if you do not want to be. If you decide to stop after we begin, that's okay too. When we are finished with this study, we will write a report about what was learned. This report will not include your name or other specific information that would identify you. If you decide you want to be in this study, please sign your name.

I, _____, want to be in this research study.

Date _____

APPENDIX I

POSITIVE AND NEGATIVE CONSEQUENCES

Positive and Negative Consequences

Identify 5 things that you would like to have or do and 5 things you do not like to do. For each column, circle three that are the most motivating to you. Your parents will give you either a reward or negative consequence each day depending upon whether you meet the specific goal discussed earlier with you and your parents.

List of Positive Consequences	List of Negative Consequences
1. _____	1. _____
2. _____	2. _____
3. _____	3. _____
4. _____	4. _____
5. _____	5. _____

APPENDIX J

PARENT INSTRUCTIONS DURING THE INTERVENTION PHASE

PARENT INSTRUCTIONS DURING THE INTERVENTION PHASE

1. Read the school-home note e-mailed each day about your child's behaviors.
2. Determine if your child did or did not meet the criteria recorded on the school-home note each day.
3. Give your child a positive consequence, if your child met the performance criterion. Give your child a negative consequence if your child did not meet the performance criterion and encourage your child to earn a positive consequence the next day.
4. Complete the parent section in the school-home note each day.
5. 'Sign' the home-school note by using the predetermined code.
6. E-mail the school-home note back to the researcher on the same day you receive it.

APPENDIX K

TEACHER/RESEARCHER INTERGITY CHECKLIST

TEACHER/RESEARCHER INTERGITY CHECKLIST

Participant: _____ Teacher: _____

Date: _____

YES NO

____ ____ 1. Teacher respond to participants during baseline as prior to the study.

____ ____ 2. Researcher evaluated each participant during an observational period of 20 minutes using a 10-second partial interval recording method, each day.

____ ____ 3. Researcher recorded the daily percentage of target behaviors exhibited by each participant on the appropriate line on the school-home note.

____ ____ 4. Researcher calculated the total daily percentage of all 3 target behaviors and compared it to the mean daily percentage obtained during baseline to determine if the participant did or did not meet the performance criterion.

____ ____ 5. Researcher "signed" the school-home note using the predetermined code.

____ ____ 6. Researcher e-mailed the school-home note to the participant's parent on the same day of the observation.

____ ____ 7. Researcher read the previous day's e-mail returned by the participant's parent, to determine whether a reward or response cost was delivered.

____ ____ 8. Researcher called the participant's parent if he or she did not return the school-home note on the same day he or she received it.

____ ____ 9. Researcher called the participant's parent if he or she did not deliver the reward or response cost (selected from the predetermined list) based on whether the participant met the performance criteria for that day.

_____ **Total Percent of "Yes" Items** (indicating the percentage of researcher treatment integrity)

Describe any unusual circumstances or events, which may have prevented correct implementation of the intervention phase.

_____

_____

Note. Checklist must be completed daily by the researcher through self-check and teacher observation. A minimum of 100% was required each day or immediate correction was made prior to e-mailing the school-home note to the participant's parent.

APPENDIX L

PARENT INTERGITY CHECKLIST

PARENT INTERGITY CHECKLIST

Participant: _____ Date: _____

YES NO

____ ____ 1. Placed a mark in the appropriate "yes" or "no" blank on the school-home note indicating the parent gave the participant a positive consequence if the participant met the performance criterion on the same day.

____ ____ 2. Placed a mark in the appropriate "yes" or "no" blank on the school-home note indicating the parent gave the participant a negative consequence if the participant did not meet the performance criterion on the same day.

____ ____ 3. "Signed" the school-home note by using the predetermined code.

____ ____ 4. E-mailed the school-home note back to the researcher on the same day the parent received it.

_____ **Total Percent of "Yes" Items** (indicating the percentage of parent treatment integrity)

Describe any unusual circumstances or events, which may have prevented correct implementation of the intervention phase.

_____

_____

Note: Checklist must be assessed daily by the researcher by checking for accurate completion of the returned school-home note for each item above. A minimum of 100% was required each day or the researcher immediately held a review session with the parent via a phone call.

APPENDIX M

INTERVENTION RATING PROFILE-15/MODIFIED VERSION

INTERVENTION RATING PROFILE-15 / MODIFIED VERSION

The purpose of this questionnaire is to obtain information that will aid in the selection of classroom interventions. Teachers of children with behavior problems will use these interventions. Please circle the number which best describes your agreement or disagreement with each statement.

SD = strongly disagree (1) **D = disagree (2)** **SLD = strongly disagree (3)**

SLA = slightly agree (4) **A = agree (5)** **SA = strongly agree (6)**

1. This would be an acceptable intervention for (target child's) problem behavior.	**1**	**2**	**3**	**4**	**5**	**6**
2. Most parents/teachers would find this intervention appropriate for behavior problems in addition to the ones exhibited by (target child).	**1**	**2**	**3**	**4**	**5**	**6**
3. This intervention has been effective in changing (target child's) problem behavior.	**1**	**2**	**3**	**4**	**5**	**6**
4. I would suggest the use of this intervention to other parents/teacher.	**1**	**2**	**3**	**4**	**5**	**6**
5. (Target child's) behavior problem is disruptive enough to warrant use of this intervention.	**1**	**2**	**3**	**4**	**5**	**6**
6. Most parents/teachers would find this intervention suitable for the behavior problems that (target child) has exhibited in the past.	**1**	**2**	**3**	**4**	**5**	**6**
7. I would be willing to continue the use of this intervention in the classroom setting or at home.	**1**	**2**	**3**	**4**	**5**	**6**
8. This intervention has not resulted in negative side effects for (target child).	**1**	**2**	**3**	**4**	**5**	**6**
9. This intervention would be appropriate for a variety of children.	**1**	**2**	**3**	**4**	**5**	**6**
10. This intervention is consistent with that which I have used in the classroom setting or at home.	**1**	**2**	**3**	**4**	**5**	**6**

11. The intervention was a fair way to handle (target child's) problem behavior.	1	2	3	4	5	6
12. This intervention is reasonable for the problem behaviors that (target child) has exhibited.	1	2	3	4	5	6
13. I liked the procedures used in this intervention.	1	2	3	4	5	6
14. This intervention was a good way to handle (target child's) behavior problems.	1	2	3	4	5	6
15. Overall, this intervention has been beneficial for (target child).	1	2	3	4	5	6

Elliott, S. N. (1988). Acceptability of behavioral treatments in educational settings. In J. C. Witt, S. N. Elliott, & F. M. Gresham (Eds.), Handbook of behavior therapy in education (pp. 146-147). New York: Plenum Press. Reprinted by permission.